BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Application of Cargill Fertilizer, Inc. to engage in self-service wheeling of waste heat cogenerated power to, from and between points within Tampa Electric Company's service area.	Docket No. 020898-EQ Filed: September 3, 2003

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DIRECT TESTIMONY AND EXHIBITS

OF

GERARD J. KORDECKI

ON BEHALF OF

CARGILL FERTILIZER, INC.

(PUBLIC VERSION)

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I.

INTRODUCTION AND WITNESS QUALIFICATIONS

Q. Please state your name, address and occupation

A. My name is Gerard J. Kordecki My business address is 10301 Orange Grove Drive, Tampa, Florida, 33618. I am self-employed as an energy and regulatory consultant.

Q. Please summarize your educational background and work experience.

A. I received a Bachelor of Science degree in advertising in 1963 and a Master of Arts in Marketing in 1965 from the University of Florida. I was enrolled in a graduate program in Economics when I enlisted in the U. S. Army. I worked for Tampa Electric Company for 33 years in various capacities involving marketing, sales, resource planning, conservation and rates and regulation. I have participated in the development of and supervised the preparation of numerous studies and plans, involving conservation goals, cost effectiveness studies, cost allocations, rates, load research and resource plans. Since January 1999, I have consulted with power plant developers and industrial and institutional utility customers on rates, regulatory policy and transmission access issues.

Q. Have you previously testified before the Florida Public Service Commission?

A. Yes, I have testified regarding the subjects identified above on more than 39 occasions. Proceedings in which I have testified include rate cases, need certifications, and conservation dockets, including allocation of costs and benefits between ratepayers and utilities. I have participated in numerous rule hearings, agenda conferences, and Commission workshops.

Q. Describe your experience in evaluating conservation activities.

A. I was a member of the Florida Coordinating Group (FCG). The FCG designed the first cost-effectiveness tests used to evaluate utility conservation programs. I also supervised the preparation and evaluation of various conservation programs using the cost-effectiveness tests both under the FCG methodology and later under the Florida Commission tests adopted in 1991. Both sets of tests are very similar but the present Manual is modeled after the California Standard Practice Manual and additionally, it contains the Commission's tests for SSW.

Q. On whose behalf are you presenting testimony in this docket?

A. I am appearing on behalf of Cargill Fertilizer, Inc. (Cargill). My testimony explains why Cargill's request to continue the Self-Service Wheeling (SSW) program with Tampa Electric Company (TECo) should be granted. SSW, in the circumstances of this case, is beneficial to TECo's customers and helps meet the conservation goals the Florida Legislature has charged the Florida Public Service Commission (Commission) to meet.

II.

TESTIMONY SUMMARY

Q. Please summarize your testimony

A. My testimony makes the following points:

1. The Cargill industrial waste heat cogeneration is the type of program that Congress and the Florida Legislature encourage by law and the Commission encourages by implementing rules It is the type of program that TECo charges its customers to promote.

2 Cargill's cogeneration, without any conservation payments or other incentives from TECo, conserves expensive and finite fossil fuels and reduces environmental impacts. Cargill's SSW program improves the efficiency of the cogeneration operation.

3 Using the incomplete information TECo supplied, I find that Cargill's SSW program benefited TECo's customers during the two-year pilot study by [redacted] under the TECo Rate Impact Measure (RIM) test and by $1,081,000 under the TECo Total Resource Cost (TRC) Test, without considering the other factors the Cost Effectiveness Manual says the Commission will study.

4. The study TECo submitted in response to the Commission's order to assist in the findings it must make when it evaluates SSW does not conform to the minimum requirements of the Commission's Cost Effectiveness Manual.

III.

LEGISLATIVE MANDATES REGARDING COGENERATION AND SSW

Q. What are the legislative goals delegated to the Commission that are pertinent to this case?

A. The Florida Legislature has directed that cogeneration be encouraged. Section 366.81, *Florida Statutes*, provides:

> ... [T] **the Legislature intends that the use of ...cogeneration... be encouraged**.

In addition, section 366.82(2), *Florida Statutes,* states:

> **Definition; goals; plans; programs; annual reports; energy audits.--**
>
> **The commission shall adopt appropriate goals for increasing the efficiency of energy consumption and *increasing the development of cogeneration*, specifically including goals designed to *increase the conservation of expensive resources*, such as petroleum fuels ...**

The Legislature has directed the Commission to ensure that appropriate conservation measures, including cogeneration, are encouraged and in place.

Q. Has the Florida Legislature enacted any mandates regarding SSW?

A. Yes. Section 366.051, *Florida Statutes,* provides:

> 366.051 Cogeneration, small power production; commission jurisdiction.—
>
> Electricity produced by cogeneration and small power production is of *benefit to the public* when included as part of the total energy supply of the entire electric grid of the state or consumed by a cogenerator or small power producer. ... Public utilities *shall provide* transmission or distribution service to enable a retail customer to transmit electrical power generated by the customer at one location to the customer's facilities at another location, if the commission finds

that the provision of this service, and the charges, terms, and other conditions associated with the provision of this service, are not likely to result in higher cost electric service to the utility's general body of retail and wholesale customers or adversely affect the adequacy or reliability of electric service to all customers. ...

This statutory section is phrased in the affirmative --- public utilities *shall provide* SSW so long as it results in no higher cost. As I will demonstrate later in this testimony, there is no higher cost to ratepayers, but TECo ratepayers are better off due to Cargill's SSW.

Q. How has the Commission implemented these goals as they apply to SSW?

A. In Order No. 24745, Docket No. 891324-EU, the Commission adopted a Cost Effectiveness Manual for Demand Side Management Programs and Self Service Wheeling Proposals (Manual). The Commission adopted the Manual in Rule 25-17.008, Florida Administrative Code.

Section III of the Manual sets out the tests to be applied to SSW -- the Rate Impact Measure test and the Total Resource Cost test, discussed below. On page 12 of its Order, the Commission stated: "In addition to the Rate Impact and Total Resource tests, there are additional considerations listed for self-service wheeling projects." These include.

(1) The type of fuel used at the cogeneration project.

(2) The fuel efficiency of the project.

(3) The likelihood of a cogenerator building its own transmission line to its other location.

(4) The materiality of any lost revenues indicated by the Rate Impact Test. (Manual at 23).

Thus, the Commission will evaluate matters in addition to the tests when considering the propriety of SSW. In addition, rule 25-17.0883, Florida Administrative Code, requires a "consideration of the unique load characteristics of the qualifying facility compared to other conservation programs."

Q. Are there mandates in federal law as well to encourage cogeneration?

A. Yes.

Q. Please describe the history of the national cogeneration policy.

A. The National Energy Act (1978) contains a section called Public Utility Regulatory Policies Act (PURPA). This section establishes a federal policy of encouraging cogeneration and small power production The Federal Energy Regulatory Commission (FERC) promulgated rules and guidelines to implement this federal policy. The federal regulations require electric utilities to purchase and to sell electricity to cogenerators that meet specified fuel efficiency standards These cogenerators are called "Qualifying Facilities" or QFs. The Cargill facilities at Millpoint and Ridgewood, seeking to engage in SSW, are QFs.

State regulatory agencies are required to establish just and reasonable rates for QF electricity. In 1981, the Commission adopted rules to implement this cogeneration policy. (See rules 25-17.080-.091, Florida Administrative Code). Without going into detail, there have been numerous dockets and thousands of hours of workshops and hearings to implement the cogeneration mandate.

IV.

CONSERVATION AND ENVIRONMENTAL BENEFITS

Q. What is the practical effect of the government encouraged cogeneration policy?

A. Producing electricity from captured waste heat instead of burning fossil fuel meets the national policy of conserving fuel and provides an additional bonus. Fewer emissions are emitted into the air and water from the utility and its industrial customers.

Q. Has TECo reacted to the cogeneration legislation, rules and mandates to provide these benefits to its customers?

A. Yes. TECo received authority to charge its customers $331,218 this year to promote cogeneration. Since 1981, TECo has spent over five million dollars on these administrative expenses to promote cogeneration DSM.

Q. Is cogeneration important to TECo and its customers?

A. Yes. The most important gauge of the significance of cogeneration to TECo is the way it affects its system planning In TECo's most recent 10 Year Site Plan, TECo forecasts that Demand Side Management from self-service cogeneration will provide 36 8% of its summer demand reduction and 19.5% of its winter demand reduction for 2003. Cogeneration obviously plays a major role in avoiding power plant construction in TECo's generation planning I haven't attempted to quantify this benefit in my testimony, but needless to say it is important.

Q How does SSW make Cargill more efficient?

A Mr. Fernandez will explain this in greater detail, but in general Cargill has cogeneration at more than one location in sufficient quantities to meet much of its

own needs and to also supply firm power to Progress Energy. Cargill wants to provide back up power to its locations from its own generators rather than relying solely on TECo This is because Cargill occasionally has programmed maintenance or an internal production loss of some kind at one of its locations and wishes to send power from another location. Cargill also proposes to use self-service wheeled power when TECo is capacity constrained and it must purchase power in the open market (usually at very high prices) TECo, in turn, charges the costs of the purchases directly to Cargill. Cargill wants to have first call on the use of its own temporary excess power rather than having power interrupted or paying market prices

Q. Does this proposed operation meet the Commission's directives?

A. Yes. Allowing Cargill to wheel its self-generated power in either of the above situations meets several important Commission criteria: fuel efficiency (industrial waste heat is substituted for utility fuel) and cogeneration is encouraged.

V.

COMMISSION COST-EFFECTIVENESS CRITERIA

Q. Please describe the cost-effectiveness tests that the Commission uses as a guide in approving or rejecting utility conservation programs and activities.

A. The Commission uses three tests -- Participant Test, Total Resource Cost (TRC) Test, and the Rate Impact (RIM) Test.

The Participant Test is used to evaluate whether a conservation measure is cost effective to the utility customer who participates in the program by installing a particular conservation measure, such as installing ceiling insulation in a home. This

test ensures that the customer has a reasonable payback for out-of-pocket expenditures.

The TRC test evaluates conservation programs on a total resource cost basis. The Commission's TRC test includes both the utility program costs and the participants' costs This test excludes "lost revenues" as a cost.

Finally, the RIM test measures the generation savings plus any increased revenues versus utility program costs plus any decreased revenues. The RIM test assumes that all utility costs, including "lost revenues" (reduction in utility base rate revenues due to customer participation) are recovered on an instantaneous basis.

Q. Elaborate on the "instant recovery" aspect of the RIM test.

A If a conservation measure installed through a utility program reduces the customer's electric bill by $10, the RIM test *assumes* that base rates increase to recover the $10. In reality, however, this recovery of "lost revenues" can take place only in the context of a permanent revenue adjustment in a rate case And, this "recovery" may not occur at all since the Commission will analyze all revenue and expense sources, as well as the company's rate of return, to determine if an increase or a decrease is warranted.

Q. Has the Commission recognized this aspect of the RIM test?

A. Yes. The Commission has recognized that rate or revenue increases are not assured simply because the RIM Test may yield a certain result. In Order No. 24745, at page 2, the Commission stated:

> The use of the Rate Impact Test does not, in any way, predetermine whether lost revenues will actually be recovered.

In the same Order (at p. 82), the "lost revenues" perspective was reiterated.

> the use of the lost revenues analysis is only as to this cost effectiveness review; in no way are we making a decision on the recovery of dollars. That occurs later when the rate impact is reviewed in a rate case

Q. Does the RIM test address rate of return issues?

A. No. The theoretical RIM test, for reasons that I will not discuss in detail, assumes that the utility's current authorized return is correct. It further assumes that when one customer uses less electricity under a conservation program, the other customers immediately pay more to bring the utility back to its authorized return

In the real world, these impacts are not simultaneous. For instance, TECo's last base rate increase was a decade ago. Since that time it has added a major power plant, the facilities at Polk I, without a base rate increase. TECo's most recent surveillance report shows that for the twelve months ending June 2003, TECo earned a 12.43% return on equity on its rate base, including construction work in progress. This return on equity is 68 basis points above the mid-point of its last authorized return. No base rate increase or reduction occurred during the pilot study period. It is unlikely that base rates will change in the foreseeable future. If they do, appropriate adjustments can be factored in at that time to protect the general body of customers from any adverse impacts that Cargill SSW might cause. This is an important caveat in using the RIM test, but to be conservative, my calculations following the Commission Cost Effectiveness Manual employ the base rate revenue loss fiction even though it is doubtful that other customers will face a base rate

increase arising out of the fact that Cargill hopes to use less utility generated electricity in its SSW program.

Q. How are "lost revenues" relevant to the SSW program at issue here?

A. TECo has admitted that any reduction in base charges will have *no* adverse impact on TECo's general body of ratepayers until TECo requests a base rate increase. (TECo response to Cargill's 1st Request for Admissions, No 1). A rate case, which includes the effects of customer conservation of energy, may not take place for a number of years, and even when it does, it may not result in a rate increase for TECo.

Q. Are the tests required for SSW the same as those for evaluation of other conservation programs?

A. Not completely. The test for SSW does not include a Participant Test A SSW program may have benefits to a participant that inure specifically to that customer and are therefore difficult to measure with a Participant Test. The Manual assumes that a self-service wheeling customer is aware of the overall benefits and costs, whereas, a typical retail customer may not be able to perform a thorough analysis for a conservation program.

Q. Are the RIM and TRC tests the same for utility conservation programs and self-service wheeling?

A. While there are minor differences in the types of costs and benefits due to the differences in the activities, the basic analyses are the same -- the tests measure the total costs and weigh these costs against the total benefits. All the tests in the Manual are based on estimating future costs and benefits.

VI.

CALCULATIONS USING THE COST EFFECTIVENSS MANUAL

Q. Did TECo use the tests in the Manual to calculate the costs and benefits of the Cargill SSW program?

A. No, despite the Manual's requirements, when TECo submitted its analyses of the Cargill SSW program to Staff, it did not use the Commission-required tests.

Q. Is Cargill fully informed as to TECo's future costs that the Commission must use in making its findings in this case?

A. No.

Q Has TECo responded fully to Cargill's request for this information?

A. No.

Q, Did the Commission order TECo to do a study report on the SSW program?

A. Yes.

Q. Should TECo be required to perform the tests the Commission ordered be used for the cost-effectiveness analyzes using the RIM and TRC tests from the Manual to assist the Commission in its findings?

A. Yes. Rule 25-17 008(1) requires the use of the Manual "whenever an evaluation of the cost effectiveness of a self-service wheeling program is required by the Commission." In Order No. PSC-03-0945-PCO-EQ, the Prehearing Officer found that Cargill has the burden of proof in this case. Cargill is respectfully suggesting that the Order be reconsidered and that of necessity TECo must go forward with the preparation of the Manual tests for the Commission to make the required findings as to TECo costs.

Q. What is the problem with Cargill performing the required tests?

A. A cogenerator, such as Cargill, does not have sufficient information to perform the tests. The utility -- TECo in this case -- has all the data. Despite this, all the data and calculations necessary are not included in the TECo quarterly reports. TECo agreed to an experiment with Cargill. TECo has most of the necessary basic data. TECo collected and analyzed the data and then reported the data on a quarterly basis to Staff. Almost a year after the "experiment" period was completed, TECo filed (on August 8, 2003) a revised analysis incorporating many of Cargill's suggestions. Because TECo controls the data and analyses, TECo should have performed the analyses set out in the Manual.

Q. Mr Kordecki, what data is needed to adequately perform the tests in the Manual?

A. The tests require forecasts of rates, cost recovery clauses, fuel clauses, marginal fuel costs, certain direct or allocated expenses, FERC transmission tariffs, etc. For instance, without a forecast of the retail fuel clause and marginal fuel costs, there is no rational way to estimate the effect of SSW on customers' fuel costs.

Q. Did Cargill attempt to obtain this data from TECo?

A. Yes, Cargill requested the necessary data in its second set of interrogatories and request for production of documents. At the time Cargill anticipated that TECo would be performing the tests. The discovery was intended to capture the underlying support for the tests that TECo would file.

Q. Could Cargill perform the tests with the TECo data?

A. Yes, the requested data would be sufficient to calculate the various cost-effectiveness tests.

Q. What data did Cargill receive as a result of its discovery requests?

A. The requests asked for 16 catergories of cost/benefit data forecast for 10 years. In response, TECo replied that it had no forecast for 9 of the data items beyond the present levels; it had 4 forecasts out 10 years; and 3 of the data forecasts were objected to by TECo.

Q. Were the discovery responses adequate for Cargill to perform the costs-benefit analyses required by the Manual?

A No.

Q. Why not?

A. It is unreasonable to expect that average expenditures per MWH by TECo for conservation, environmental outlays, etc. will remain constant or that rate schedules, both retail and wholesale, will remain the same over the next 10 year period. TECo objected to supplying estimates of fuel clauses. Without these estimates, there is no possible way to calculate the effect of SSW on fuel costs. Cargill also asked for data on outages in order to measure potential wheeling costs and optional purchase savings. TECo objected to these questions as well.

Q. Mr. Kordecki, if TECo did not supply adequate data to perform the Manual's cost-benefit analyses, how did you perform your SSW evaluations?

A. I used the August 8th revised TECo quarterly reports for the RIM test. For the TRC test, I used TECo's response to Cargill Interrogatory No. 18.

Q. What kind of "analyses" did TECo perform for its RIM test in the quarterly reports?

A. Aside from data omissions and errors discussed later in my testimony, TECo used a test whose application to customers is different than the Manual anticipates.

Q. What kind of test did TECo use?

A. TECo used a test that could be characterized as a non-participant test as opposed to the all ratepayers test in the Manual. For example, TECo excludes rate benefits to Cargill (cost reductions in the form of reduced third party purchases). Exclusion of these benefits is contrary to the way in which customer rate reductions are handled in the evaluation of utility conservation and load management programs.

Q. Please explain the difference between the non-participant test that TECo performed and the RIM Test calculation which the Manual anticipates.

A. TECo's non-participant test excludes the benefits received by the participant, Cargill. The Commission Manual RIM Test includes *all* benefits to all ratepayers, including Cargill. In the many years that I was involved in the evaluation of conservation and load management programs, I never saw a demand side utility program this Commission approved where participant benefits (customers or classes of customers) were excluded from the overall program benefits in the cost-benefit calculation.

Q. Could the data from Cargill's SSW experiment be applied to other potential cogenerators?

A. Probably not. The SSW experiment at issue in this docket allowed Cargill at times to maximize the use of its generators between various locations The combination of locations and processes are unique to Cargill. TECo itself recognized the uniqueness of the Cargill situation in a letter to the Federal Energy Regulatory Commission (FERC) describing the transaction-specific service agreement request for Cargill's self-service wheeling. In October 2002, TECo told the FERC in its service agreement filing that· "Cargill's situation as a QF with both generation and remote

load on Tampa Electric's system is unique and there is no current expectation that additional retail self-service wheeling transactions will occur."

VII.

CORRECTION OF TECo's ERRONEOUS RIM CALCULATIONS

Q. Do you agree with all the specific data elements TECo used in calculating the costs and benefits of the SSW program?

A No. TECo's August 8, 2003 revised monthly analyses of the Cargill SSW pilot, while an improvement over TECo's previously filed reports, still omits customer savings, inappropriately includes non-recurring costs and benefits, and fails to use the most current data. Thus, these reports do not give this Commission the most current and accurate picture of Cargill's SSW program.

Q. Please describe TECo's omissions.

A TECo has omitted, as mentioned earlier, the benefits that occur when TECo is capacity short and must purchase power from other sources to serve customers with optional provision purchase rights These customers are non-firm and when TECo does not have the resources to serve them, TECo can buy power from other sources and allocate the costs to the non-firm customers. When the optional purchase power provision is in effect and Cargill uses its generation to self-serve, some of these off-system purchases are eliminated This optional purchase situation was the basis of Cargill's initial self-service request. Some of Cargill's self-service generation went off-line and TECo did not have sufficient capacity to serve. Cargill was forced to purchase very expensive power through TECo from other utilities. This specific situation was addressed in the Order approving the SSW experiment. (Order No.

PSC-00-1596-TRF-EQ, Docket No. 001048-EQ)

Despite this, TECo has treated SSW during third party purchase situations as if it didn't exist. In the footnotes to TECo's quarterly reports on the page titled "Overview of Self-Service Wheeling Experimental Program," TECo admits

> SSW energy occurring during hours of optional provision purchase is excluded from the actual energy reduction amount in the Ratepayer Impact Section of this report. Lost revenues and avoided fuel expense are not applicable to this energy as it would have otherwise been served through optional provision purchases and not by Tampa Electric

Q. What is the effect of this omission?

A. TECo has failed to account for avoided fuel costs in the form of reduced optional purchases. This is a savings, most of which, is enjoyed by Cargill. To ignore ratepayer savings because the preponderance of the savings accrue to the participating customer, has the effect of rejecting the tests in the Commission approved Manual. TECo, in its quarterly reports, adopted a non-participant test contrary to the all-customer savings format the Manual anticipates.

In the initial study, TECo did not properly calculate the reserved transmission capacity for SSW billing during both third party purchase periods and non-purchase periods These errors appear to be corrected in the August 8th revisions.

Q. Are there other errors or omissions in TECo's calculations?

A. Yes. TECo's original quarterly reports had no credits for reductions in production O & M costs when TECo's generation resources were reduced due to Cargill's

wheeling of its power between locations. This benefit, of reduced production maintenance expense, also occurs when Cargill sends more power than the Cargill loads require. TECo's production levels are reduced since Cargill is exporting increased capacity into the TECo system thus reducing the production O&M expenses. These errors were corrected in the August 8th filing by TECo after Cargill pointed out the errors to TECo

Q. Are there any other benefits that TECo did not capture?

A. Yes. TECo's analyses (both the original and the August 8th filings) exclude any allowance for reduced environmental costs. The quarterly reports give no credit for the environmental benefits that occur during the applicable SSW periods. There is no doubt that when Cargill wheels power between its locations and TECo generation resource output is reduced, pollutants in the Tampa Bay Area are correspondingly reduced. As Commissioner Bradley recognized when discussing a TECo program intended to reduce Nox emissions.

> Commissioner Bradley: And as a result of the reduction of NOX emissions, is there a direct benefit to the ratepayer? I'm from Tampa Bay and I know that we've had ... we always had a major discussion about NOX emissions coming from Big Bend and polluting the area. And I wouldn't want us to make a decision that discourages TECO from installing a system that improves the quality of life in that area, not only for the citizens, but for Tampa Bay in general, the bay itself, the estuary and the environment.

(Docket No 030226-EI, Agenda Conference Transcript at 26-27, June 3, 2003)

Q Are there other factors that indicate that reduced environmental costs should be included in the analyses?

A Yes TECo allocates and collects the environmental costs that are not in base rates on a per kilowatt-hour basis as part of the Environmental Cost Recovery Clause. Cost recovery on a per kilowatt-hour basis indicates that environmental costs vary with energy output In TECo's 1983 rate case (Docket No. 830012-EU, Order No 12663), TECo advocated, and the Commission accepted, the classification of the environmental costs of Big Bend Unit Four (both capital and O&M) on an energy per kilowatt-hour basis. This allocation means that pollution and the cost to control pollution are incurred as energy is used. Logically, the converse should also be true: if energy generated by TECo is reduced, then pollution control costs must also be reduced.

The same logic used in the treatment of pollution control costs applied to the collection of the Environmental Cost Recovery Clause (ECRC) charges should be applied here. Therefore, when Cargill reduces TECo's generation output due to SSW, it reduces TECo's pollution and, therefore, TECo's pollution costs.

There should be regulatory symmetry between how TECo allocates and collects its environmental costs and how the cost reductions are calculated when Cargill engages in SSW. To accomplish regulatory symmetry, Cargill should be credited the same $/MWH as the ECRC clause when Cargill is using SSW and reducing the need for TECo generation resources. Regulatory consistency requires like treatment for a MWH generated and consumed versus a MWH saved. This rationale places an appropriate value on the environmental benefits of Cargill's SSW

program. There are also additional environmental benefits when Cargill replaces third party purchases with self-service wheeling. These optional purchases emanate from other utilities or independent generators that are primarily located in Florida. Therefore, there is reduced pollution in other areas of Florida besides the Tampa Bay area.

Q. What is the value of symmetrical treatment of pollution's costs and benefits on TECo's cost effectiveness analysis?

A. It adds $14,004 of benefits

Q. How have you corrected TECo's cost-benefit calculations to reflect the errors of omission you described above?

A. Yes. I have added the environmental savings of $14,004 and customer savings of third party purchases of $137,142 to the RIM calculation.

Q. Are there non-recurring costs that should be excluded from the cost-effectiveness valuation?

A. Yes. TECo has included the monitoring system established for the wheeling experiment as a cost in its analysis. TECo also included refunds as a benefit. Since refunds are non-recurring, removal from the calculations is appropriate

Q. What are the non-recurring costs and benefits that you removed from the TECo RIM?

A. TECo has listed $16,922 in administrative, billing, etc. for the pilot study. The majority of these costs were in the initial setup Under a permanent SSW, this oversight would not be needed. TECo already has administrative and billing costs in its rates. Administrative costs are found in Cargill's retail rates, third party optional

purchases, and the FERC transmission services have administrative cost components, etc TECo's administrative charges would collect the same costs twice.

TECo gave Cargill credit for not receiving $7,111 in refunds. I removed this item because it was non-recurring and won't be in effect in the future.

Q. Any other changes?

A. I have updated, where appropriate and reasonable, the current clause factors and the TECo transmission rate.

Q. What is the effect of updating the data?

A. These changes are similar to pro forma adjustments that would take place in a utility rate case. More current and precise data gives the Commission a more realistic and accurate picture of the benefits of Cargill's SSW.

Q. Mr. Kordecki, have you detailed the changes made to the TECo RIM?

A Yes, I have provided 3 exhibits which do this:

- Exhibit No. 1 shows the non-recurring costs and benefits that have been removed.
- Exhibit No. 2 shows the environmental benefits of SSW and optional purchase power savings that arise from Cargill's SSW.
- Exhibit No. 3 contains the current cost data from TECo's most recent quarterly report (2nd Quarter 2003). It includes the current retail clauses (except for fuel) and TECo's current transmission tariff.

Q. Why haven't you used the current fuel clause information?

A. The calculation of fuel benefits requires the comparison of the retail fuel tariff versus the incremental fuel costs that are in effect during the periods in which Cargill is

using SSW. There is no data available to predict TECo's incremental fuel costs for those SSW periods.

Q. After your data corrections and adjustments, what is your conclusion about the cost effectiveness of the Cargill SSW experiment?

A. Cargill's SSW has a net benefit of [redacted]. There is a current benefit of [redacted].

Q. What do you mean by current benefit?

A. A current benefit excludes any costs or benefits that may be dealt with in a future rate/revenue proceeding. TECo would have to be successful in prosecuting a full rate case and receiving an increase before these "lost revenues" would have any relevance. The current benefit is the reduced costs that customers enjoy due to the SSW In fact, using TECO's August 8th analyses, during the experiment period, the customers benefited by [redacted] without including any third party optional purchase reductions (See Exhibit No _____ GJK-4).

Q. Did TECo perform a TRC test?

A. Yes, but only after the Commission ordered them to do so.

Q. Do you agree with TECo's analysis?

A. No, I do not agree with some of the inputs nor TECo's conclusion that the TRC is negative for the Cargill SSW.

Q. What are the points of agreement?

A. TECo's estimate of Cargill's incremental O&M to schedule transactions appears reasonable since Cargill uses a marketer whose charges are incremental The estimates of variable production O&M savings are acceptable as a benefit but not as a cost.

Q. What are the points of disagreement?

A. First, I disagree with the inclusion of any "utility program costs" which represent TECo's estimate of $27,000 of programming costs and recurring annual administrative costs of $6,000. There are three reasons, any one of which could be relied upon, to remove the utility program costs.

First, if Cargill's SSW application for permanent status is approved, it is no longer necessary to spend monitoring dollars to ascertain "lost revenues", comparisons of incremental fuel costs to retail tariff fuel tariffs, etc. There is no need for a new billing system since each activity (retail rates, third party option purchases, the GSI and FERC transmission rates) have customer charges or use charges which account for any costs incurred by TECo.

Second, no support has been provided to show that these "costs" are incremental as opposed to an allocation of present costs. No cost justification has been provided to support the costs as incremental.

Third, these "costs," if any occur, should be considered as "lost revenues" or transfer payments as defined by the Manual test.

Q. Are there other points of disagreement?

A. Yes The major flaw in the TECo TRC is the inclusion of avoided fuel savings in the form of as-available energy payments and avoided variable production O&M as a cost—in this case, TECo calls this a "lost opportunity" cost.

The SSW section of the Manual has specifically excluded the Participant Test. The Commission states on page 3 of the Manual: "A participant Test is not specified for self-service wheeling since it is assumed the proposal is cost-effective

to the party requesting the wheeling" If the Commission were to accept TECo's "opportunity cost" argument, then Cargill would not be acting in an economically rational manner. TECo's calculation can only be true in the situation where its as-available energy payments are higher than Cargill's base rates plus cost recovery clauses and miscellaneous charges. This situation might occur theoretically but not practically. If TECo was paying as-available energy payments higher than Cargill's average total cost per MWH, I would expect the cogenerators around the state would be lining up to send any excess cogenerated energy to TECo. In fact, TECo's as-available energy payments shown in its TRC test are well below Cargill's average cost per MWH

Q. Have you performed a TRC Test?

A. Yes. I performed a TRC Test using the TRC analysis that TECo prepared as a basis.

Q. What did your analysis show?

A. My TRC test shows Cargill's self-service experiment is overwhelmingly positive. The TRC test is shown on Exhibit No _____ (GJK-5).

Q. Is Cargill's SSW program cost effective?

A. Absolutely, based on the data from the experiment period and the calculations I have provided and discussed above. There is no doubt that all customers have and will benefit from Cargill SSW.

VIII.

OTHER CONSIDERATIONS

Q. Are these other matters the Commission must consider beyond the tests you discussed above?

A. Yes. Even if the Commission disagrees with my cost-effectiveness analysis, the criteria set out in Order No. 24745, and described earlier in my testimony, provide the basis on which this Commission should approve permanent SSW for Cargill.

Q. Please explain.

A. First, the revenue effect of the SSW program, even under TECo's calculation, is de minimus (TECo submissions show it to be [redacted] over the two-year period). Further, there are other Commission criteria, which should be used in the approval process The criteria, which are applicable to Cargill's situation, are:

- **Type of fuel**: The fuel Cargill uses is waste heat gathered from its processes. Fossil fuel is not used nor are there any adverse environmental effects. In fact, Cargill's use of waste heat reduces the pollution emitted from TECo's generators.
- **Fuel efficiency**: Cargill's generators are rated based on process needs, not generation needs. The most important aspect of the generation is the use of waste heat which is "free" fuel. Since no fuel is needed to fuel Cargill's generation and or SSW, fossil fuels are being conserved and cogeneration is encouraged.
- **Materiality**: The materiality of any lost revenues, as indicated by the RIM test TECo performed, is negligible. TECo's RIM test shows a negative [redacted] My analysis shows a positive [redacted] Either way the amount is not material. The negative impact of the TECo study is [redacted]. The positive impact of my study is [redacted].

TECO's annual revenues during the 24 months of the SSW experiment averaged

around 1.5 billion dollars Dividing the hypothetical "lost revenues" TECo estimates by TECo's total revenues during the period yields three thousands of one percent. This statistic is not material to TECo.

IX

CONCLUSION

Q. Should the Commission permanently approve the Cargill/TECo SSW program?

A. Yes. As my testimony discusses in detail, the SSW program furthers important federal and state environmental goals and is clearly cost-effective. Congress, the Florida Legislature, and this Commission have enacted laws and promulaged rules to encourage cogeneration and conservation. Cargill's SSW secures the benefits of capturing waste heat to make electricity instead of letting the heat escape into the atmosphere. Cargill's SSW program, though perhaps small in a global sense, is a perfect example of a program which keeps accomplish important legislative goals in a cost-effective manner.

Q. Does that conclude your direct testimony?

A Yes.

IMPACT OF CARGILL SELF-SERVICE WHEELING PILOT PROGRAM (2000 – 2002)

	TECO CALCULATION OF COSTS (-) AND BENEFITS (+)	**CALCULATION WITHOUT NON-RECURRING COSTS AND BENEFITS**
Implementation costs	($ 16,922)	$ 0
Base Energy	($ 94,428)	($ 94,428)
Environmental Clause	($ 14,004)	($ 14,004)
Conservation Clause	($ 2,572)	($ 2,572)
Capacity Clause	($ 1,555)	($ 1,555)
Retail Fuel Clause	($262,632)	($262,632)
Avoided Fuel Charges	[redacted]	[redacted]
Avoided Var. O&M	$ 15,768	$ 15,768
Transmission Revenue	$ 23,452	$ 23,452
Net GSI Charges	$ 6,547	$ 6,547
Customer Savings— Avoided 3rd Party Purchases	$ 0	$ 0
Refund	$ 7,111	$ 0
TOTAL	[redacted]	[redacted]

IMPACT OF CARGILL SELF-SERVICE WHEELING PILOT PROGRAM (2000 – 2002)

	TECO CALCULATION OF COSTS (-) AND BENEFITS (+)	**CALCULATION WITHOUT NON-RECURRING COSTS AND BENEFITS WITH CUSTOMER SAVINGS ADDED**
Implementation costs	($ 16,922)	$ 0
Base Energy	($ 94,428)	($ 94,428)
Environmental Clause	($ 14,004)	$ 14,004
Conservation Clause	($ 2,572)	($ 2,572)
Capacity Clause	($ 1,555)	($ 1,555)
Retail Fuel Clause	($262,632)	($262,632)
Avoided Fuel Charges	[redacted]	[redacted]
Avoided Var. O&M	$ 15,768	$ 15,768
Transmission Revenue	$ 23,452	$ 23,452
Net GSI Charges	$ 6,547	$ 6,547
Customer Savings— Avoided 3rd Party Purchases	$ 0	$ 137,412
Refund	$ 7,111	$ 0
TOTAL	[redacted]	[redacted]

IMPACT OF CARGILL SELF-SERVICE WHEELING PILOT PROGRAM (2000 – 2002)

	TECO CALCULATION OF COSTS (-) AND BENEFITS (+)	**CALCULATION WITHOUT NON-RECURRING COSTS AND BENEFITS WITH CUSTOMER SAVINGS ADDED, CURRENT DATA**
Implementation costs	($ 16,922)	$ 0
Base Energy	($ 94,428)	($ 94,428)
Environmental Clause	($ 14,004)	$ 14,004
Conservation Clause	($ 2,572)	($ 1,856)
Capacity Clause	($ 1,555)	($ 1,578)
Retail Fuel Clause	($262,632)	($ 262,632)
Avoided Fuel Charges	[redacted]	[redacted]
Avoided Var. O&M	$ 15,768	$ 15,768*
Transmission Revenue	$ 23,452	$ 53,182
Net GSI Charges	$ 6,547	$ 6,547
Customer Savings—Avoided 3rd Party Purchases	$ 0	$ 137,412
Refund	$ 7,111	$ 0
TOTAL	[redacted]	[redacted]

*Current Credit not calculated due to unresolved applicable MWH

Current Clause Charges Exclusive of Fuel Clause[1]

Environmental Clause	$1.27/MWH
Conservation Clause	$0 20/MWH
Capacity Clause	$0 17/MWH

Transmission Rate[2]

	On-Peak	Off-Peak
Schedule 1	0.06136	0 06136
Schedule 2	0.21452	0 10187
Schedule Transmission		
Non-Firm	$3.49 rounded	$1.66 rounded
Total	$3.77 rounded	$1 82 rounded

[1] Data taken from TECo SSW Quarterly Report, 2d Quarter 2003.
[2] Scheduling Charges corrected from Report.

IMPACT OF CARGILL SELF-SERVICE WHEELING PILOT PROGRAM (2000 – 2002)
SAVINGS TO CUSTOMERS DURING PILOT

TECO CALCULATION OF COSTS (-) AND BENEFITS (+)		**CUSTOMER SAVINGS**
Implementation costs	($ 16,922)	$ 0
Base Energy	($ 94,428)	$ 0
Environmental Clause	($ 14,004)	($ 14,004)
Conservation Clause	($ 2,572)	($ 2,572)
Capacity Clause	($ 1,555)	($ 1,555)
Retail Fuel Clause	($262,632)	($262,632)
Avoided Fuel Charges	[redacted]	[redacted]
Avoided Var. O&M	$ 15,768	$ 0
Transmission Revenue	$ 23,452	$ 23,452
Net GSI Charges	$ 6,547	$ 6,547
Customer Savings--- Avoided 3rd Party Purchases	$ 0	$ 0
Refund	$ 7,111	$ 7,111
TOTAL	[redacted]	[redacted]

YEAR	INCREASED SUPPLY COSTS S (000)	UTILITY PROGRAM COSTS S (000)	PARTICIPANT PROGRAM COSTS S (000)	OTHER COSTS S (000)	TOTAL COSTS S (000)	AVOIDED PRODUCTIO N BENEFITS S (000)	AVOIDED T & D BENEFITS S (000)	PROGRAM FUEL SAVINGS S (000)	OTHER BENFITS S (000)	TOTAL BENEFITS S (000)	NET BENEFITS S (000)
2004	0	0	11		11	12	0	124	0	136	125
2005	0	0	11		11	12	0	148	0	160	149
2006	0	0	12		12	13	0	156	0	168	156
2007	0	0	12		12	13	0	164	0	177	165
2008	0	0	12		12	13	0	170	0	184	172
2009	0	0	13		13	14	0	179	0	193	180
2010	0	0	13		13	14	0	186	0	200	187
2011	0	0	13		13	14	0	207	0	222	208
2012	0	0	14		14	15	0	209	0	224	210
2013	0	0	14		14	16	0	230	0	245	231
Nominal.	0	0	125	0	125	136	0	1,773	0	1,909	1,783
NPV	0	0	76	0	76	65	0	1,070	0	1,155	1,081

Discount Rate 9.39%

Benefit Cost Ratio 14.2 : 1

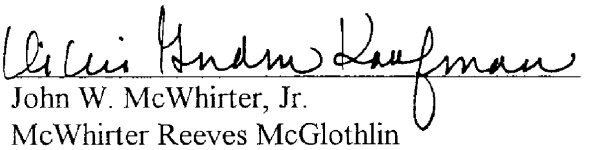
Notes:

1) 2004 is assumed to be the start date
2) No increased supply costs are assumed
3) Utility program costs.
4) Participant program costs include variable O & M, assumed @ 2MWH escalating @ 2.5% per year times the total SSW MWH's generated in issues is assumed to be 5,549 MWH per year
5) No other costs assumed as it has not been proven that the SSW generation is incrementaly new
6) Sum of cols (2) through (5)
7) Avoided production benefits include variable O & M project @ $2.5 MWH escalating at 2.5% per year. This amount is applied to annual reduced MWH's of 4.758 includes adjustment for optional provision overlap hours and line losses.
8) No avoided T & D expense is assured
9) Fuel savings are based on projected on-peak and off-peak marginal fuel costs at a ratio of 38.62%. This blended rate is multiplied by the annual reduced MWH's of 4.758 including adjustments oroptional provisions overlap hours and line losses
10) No other costs included
11) Sum of cols (7) through (10)
12) Col (11) minus col (6)

CERTIFICATE OF SERVICE

I HERBY CERTIFY that a true and correct copy of the foregoing Direct Testimony and Exhibits of Gerard J. Kordecki (Public Version) on Behalf of Cargill Fertilizer, Inc. has been furnished by (*) hand delivery or U.S. Mail on this 3rd day of September, 2003 to the following:

(*) Rosanne Gervasi
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399



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