PACE Exhibit No. 9

020953-EI

Roeder, Dan

From: White, Bart B
Sent: Tuesday, April 30, 2002 10:23 AM
To: Roeder, Dan
Subject: RE: Hines 3 RFP - Bidder D Load Flow Analysis

You're right, that was poor wording. See attached for further revisions.

Hines 3 RFP TP Analysis.doc

----Original Message----
From: Roeder, Dan
Sent: Tuesday, April 30, 2002 10:15 AM
To: White, Bart B
Subject: RE: Hines 3 RFP - Bidder D Load Flow Analysis

Bart--
Thanks for the quick update. I have a question about the wording, however. For both the D and F proposals, you mentioned $20 million for the Hines-West Lake Wales line, which is also required for Hines 3. For documentation purposes, would it be more correct to say something along the lines of "...would necessitate the advancement of the construction of a 20-mile 230 kV line from Hines Substation to West Lake Wales from May, 2007 to May, 2005."?

I am concerned that someone picking this up (it will likely be discovered) might not know about the line and that it was already in the plan. If the above wording is correct, please revise the document and resend it. (You don't have to use the exact wording I wrote above; the concept is what I want to get documented).

Thanks,
--Dan

----Original Message----
From: White, Bart B
Sent: Tuesday, April 30, 2002 9:50 AM
To: Roeder, Dan
Subject: RE: Hines 3 RFP - Bidder D Load Flow Analysis

Dan,

See the revised report that is attached for Bidder D changes. In addition, we neglected an overload in 2010 Summer for Bidder F that we believe necessitates construction of the Hines-West Lake Wales 230 kV line as well. I also removed costs for any facilities considered as base interconnection facilities. See red highlighted text for all changes.

thanks,
Bart

<< File: Hines 3 RFP TP Analysis.doc >>

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET NO. 020953-EI EXHIBIT NO. 9
COMPANY/ WITNESS: FPC
DATE: 12-3-02

FPC002611

----Original Message----
From: White, Bart B
Sent: Tuesday, April 30, 2002 8:06 AM
To: Roeder, Dan
Subject: Hines 3 RFP - Bidder D Load Flow Analysis

Dan,

The Hines - West Lake Wales 230 kV line is definitely a required facility to meet contingency load flow requirements for Bidder D. Our Bidder D analysis was inadvertently run with that line in the case. We are re-running the Bidder D analysis now with Hines - West Lake Wales removed, which will certainly show the same

overloads we have seen for a base Hines 3 installation. I expect to have you some results later today.

thanks,

W. Bart White, P.E.
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FPC002612

Hines 3 RFP

Transmission Planning Analysis and Interconnection Costs for Bidder Proposals

Bidder C

Load Flow Analysis

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The purpose of the load flow analysis was to determine the impact of the proposed Bidder C site on the System by comparing the performance of the System with and without the proposed site. Normal condition and first contingency analysis was performed for these scenarios.

The branch loading performance was compared against FP Transmission Planning criteria. For normal continuous loading conditions, normal (Rate A) ratings were applied. For first contingency conditions, emergency ratings (Rate B) were applied. System voltage is considered acceptable at 0.95 p.u. or higher. Contingencies showing first contingency loading increases of 3% or greater for a Bidder C dispatch versus the base case are considered significant overloads that merit further research and discussion with the affected entities.

No normal condition overloads were encountered in 2006 Summer conditions based on the monitoring of all facilities in the vicinity of the Bidder C site. However, the Bidder C Tap - West Lake Wales 230 kV line was overloaded to 122.2% of its normal rating by 2010 Summer. In Summer 2006, the loss of four different 230 kV lines were found to overload the Bidder C Tap - West Lake Wales 230 kV line or the Bidder C Tap – TECO South Eloise 230 kV line as high as 112.1% of emergency rating (550 MVA). In Summer 2010, the loss of nine different 230 kV lines were found to overload the Bidder C Tap - West Lake Wales 230 kV line or the Bidder C Tap – TECO South Eloise 230 kV line as high as 143.3% of emergency rating (550 MVA). *These overloads would necessitate a rebuild of the existing FP West Lake Wales – TECO South Eloise – FP North Bartow 230 kV line. Costs for this rebuild and other interconnection costs are as follows: Rebuild existing FP West Lake Wales – TECO South Eloise – FP North Bartow 230 kV line (18.7 miles) with associated Substation work at West Lake Wales, North Bartow and South Eloise Substations -* ***$20,000,000,***

Stability Analysis

The stability analysis was designed to evaluate the impact of Bidder C by focusing on the relative performance of the System with and without the proposed plant. The benchmark performance was established by the results of stability simulations without Bidder C dispatched for 2005 Winter conditions. The relative performance of the System with the Bidder C site dispatched was then compared to the base cases. Analysis for each scenario includes monitoring of Bidder C machine variables, power output for other generators in the vicinity, and power output for large generators in Florida. All faults in these simulations are 3-phase faults with a normal clearing time of 5 cycles. Individual simulations for Bidder C were performed for the following events: 1) 3-phase fault at the

Bidder C 230 kV Tap bus and subsequent loss of the Bidder C Tap – West Lake Wales 230 kV line, 2) 3-phase fault at the Bidder C 230 kV Tap bus and subsequent loss of the Bidder C Tap – TECO South Eloise 230 kV line and 3) 3-phase fault at the Bidder C 230 kV Switchyard bus and subsequent clearing of a portion of the Bidder C 230 kV Switchyard bus without loss of the Bidder C generator.

Under the studied 2005 Winter conditions with Bidder C dispatched, the System response for all contingencies is first swing stable with all oscillations well within the 5% damping threshold considered to be adequately damped by the Florida Reliability Coordinating Council (FRCC).

Short Circuit Analysis

Short circuit analysis was performed for the West Lake Wales Substation and other nearby substations to determine the impact of Bidder C on existing circuit breaker duties. This consisted of the application of a 3-phase fault bolted to the pertinent bus with Bidder C out of service, followed by repetition of the fault with Bidder C in-service. In simulations using 2006 and 2010 Summer base cases, with and without Bidder C dispatched, several 230 kV breakers were found to be overdutied. In all cases, however, these breakers are already at or near their maximum fault current interrupting rating without Bidder C in-service. As such, Bidder C would have no cost responsibility for upgrading these breakers.

Bidder D

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Load Flow Analysis

The purpose of the load flow analysis was to determine the impact of the proposed Bidder D site on the System by comparing the performance of the System with and without the proposed site. Normal condition and first contingency analysis was performed for these scenarios.

The branch loading performance was compared against FP Transmission Planning criteria. For normal continuous loading conditions, normal (Rate A) ratings were applied. For first contingency conditions, emergency ratings (Rate B) were applied. System voltage is considered acceptable at 0.95 p.u. or higher. Contingencies showing first contingency loading increases of 3% or greater for a Bidder D dispatch versus the base case are considered significant overloads that merit further research and discussion with the affected entities.

No normal condition overloads were encountered in 2006 or 2010 Summer conditions based on the monitoring of all facilities in the vicinity of the Bidder D site. Contingency analysis did reveal overloading concerns, however. In 2005 Winter simulations with Bidder D dispatched, the loss of the Fort Meade – West Lake Wales 230 kV line was shown to overload the Barcola – Pebbledale 230 kV to 105% of its emergency rating. Additionally, 2006 Summer simulations showed the loss of the Fort Meade – West Lake

Wales 230 kV line would load the Barcola – Pebbledale 230 kV to 99% of its emergency rating and the West Lake Wales – South Eloise – North Bartow 230 kV line to 102 % of its emergency rating.

The overloading scenarios exhibited for a Bidder D dispatch would necessitate the acceleration of the construction of a 20-mile 230 kV line from Hines Substation to West Lake Wales from May 2007 to May 2005. This facility is presently estimated at $20,000,000.

CONFIDENTIAL

Stability Analysis

The stability analysis was designed to evaluate the impact of Bidder D by focusing on the relative performance of the System with and without the proposed plant. The benchmark performance was established by the results of stability simulations without Bidder D dispatched for 2005 Winter conditions. The relative performance of the System with the Bidder D site dispatched was then compared to the base cases. Analysis for each scenario includes monitoring of Bidder D machine variables, power output for other generators in the vicinity, and power output for large generators in Florida. All faults in these simulations are 3-phase faults with a normal clearing time of 5 cycles. Individual simulations for Bidder D were performed for the following events: 1) 3-phase fault at the Hines 230 kV bus and subsequent loss of the Hines – Fort Meade 230 kV line, 2) 3-phase fault at the Hines 230 kV bus and subsequent loss of the Hines – Barcola 230 kV line #1 and 3) 3-phase fault at the Hines 230 kV bus and subsequent loss of the Hines – Tiger Bay 230 kV line.

Under the studied 2005 Winter conditions with Bidder D dispatched, the System response for all contingencies is first swing stable with all oscillations well within the 5% damping threshold considered to be adequately damped by the Florida Reliability Coordinating Council (FRCC).

Short Circuit Analysis

Short circuit analysis was performed for the Vandolah and Fort Meade Substations and other nearby substations to determine the impact of Bidder D on existing circuit breaker duties. This consisted of the application of a 3-phase fault bolted to the pertinent bus with Bidder D out of service, followed by repetition of the fault with Bidder D in-service. In simulations using 2006 and 2010 Summer base cases, with and without Bidder D dispatched, several 230 kV breakers were found to be overdutied. In all cases, however, these breakers are already at or near their maximum fault current interrupting rating without Bidder D in-service. As such, Bidder D would have no cost responsibility for upgrading these breakers

Bidder F

Load Flow Analysis

FPC002615

The purpose of the load flow analysis was to determine the impact of the proposed Bidder F site on the System by comparing the performance of the System with and without the proposed site. Normal condition and first contingency analysis was performed for these scenarios.

The branch loading performance was compared against FP Transmission Planning criteria. For normal continuous loading conditions, normal (Rate A) ratings were applied. For first contingency conditions, emergency ratings (Rate B) were applied. System voltage is considered acceptable at 0.95 p.u. or higher. Contingencies showing first contingency loading increases of 3% or greater for a Bidder F dispatch versus the base case are considered significant overloads that merit further research and discussion with the affected entities.

No normal condition overloads were encountered in 2006 or 2010 Summer conditions based on the monitoring of all facilities in the vicinity of the Bidder F site. Contingency analysis for 2010 Summer did reveal an overload of the West Lake Wales – South Eloise 230 kV line to 101.1% of its emergency rating for the loss of the Fort Meade – West Lake Wales 230 kV line. Additionally, Summer 2006 and 2010 simulations revealed several single contingency scenarios on the Florida Power & Light (FPL) and Tampa Electric (TECO) transmission systems which violate the incremental 3% criteria. The loss of the Charlotte – Whidden 230 kV line was found to increase the overload of the Charlotte – Carlstrom 230 kV line from 128.9% to 136% of its emergency rating, and the loss of the Charlotte – Calusa 230 kV line was found to overload the Charlotte – Fort Myers 230 kV line from 99.3% to 102.6% of its emergency rating. In 2010 Summer, the loss of the Charlotte – Whidden 230 kV line was found to increase the overload of the Charlotte – Carlstrom 230 kV line from 138.3% to 145.6% of its emergency rating. The loss of the Charlotte – Hardee 230 kV line was found to increase the overload of the Charlotte – Carlstrom 230 kV line from 102.7% to 107.4% of its emergency rating. The loss of the TECO Polk – Pebbledale 230 kV line #1 was found to overload the Polk – Pebbledale 230 kV line #2 from 96% to 114.8% of its emergency rating. The loss of the TECO Polk – Pebbledale 230 kV line #2 was found to increase the overload of the Polk – Pebbledale 230 kV line #1 from 103.3% to 123.7% of its emergency rating. Depending on the outcome of the Hines 3 RFP, these results would potentially need to be addressed by FPL and TECO.

The overloading scenarios exhibited for a Bidder F dispatch would necessitate the acceleration of the construction of a 20-mile 230 kV line from Hines Substation to West Lake Wales from May 2007 to May 2005. This facility is presently estimated at $20,000,000.

Stability Analysis

The stability analysis was designed to evaluate the impact of Bidder F by focusing on the relative performance of the System with and without the proposed plant. The benchmark

performance was established by the results of stability simulations without Bidder F dispatched for 2005 Winter conditions. The relative performance of the System with the Bidder F site dispatched was then compared to the base cases. Analysis for each scenario includes monitoring of Bidder F machine variables, power output for other generators in the vicinity, and power output for large generators in Florida. All faults in these simulations are 3-phase faults with a normal clearing time of 5 cycles. Individual simulations for Bidder F were performed for the following events: 1) 3-phase fault at the Bidder F 230 kV bus and subsequent loss of the Bidder F– Vandolah 230 kV line and 2) 3-phase fault at the Bidder F 230 kV bus and subsequent loss of the Bidder F– Fort Meade 230 kV line.

Under the studied 2005 Winter conditions with Bidder F dispatched, the System response for all contingencies is first swing stable with all oscillations well within the 5% damping threshold considered to be adequately damped by the Florida Reliability Coordinating Council (FRCC).

Short Circuit Analysis

Short circuit analysis was performed for the Vandolah and Fort Meade Substations and other nearby substations to determine the impact of Bidder F on existing circuit breaker duties. This consisted of the application of a 3-phase fault bolted to the pertinent bus with Bidder F out of service, followed by repetition of the fault with Bidder F in-service. In simulations using 2006 and 2010 Summer base cases, with and without Bidder F dispatched, several 230 kV breakers were found to be overdutied. In all cases, however, these breakers are already at or near their maximum fault current interrupting rating without Bidder F in-service. As such, Bidder F would have no cost responsibility for upgrading these breakers.