ORIGINAL

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

SUPPLEMENTAL TESTIMONY OF MYRON ROLLINS

ON BEHALF OF

FLORIDA MUNICIPAL POWER AGENCY

JEA

REEDY CREEK IMPROVEMENT DISTRICT

AND

CITY OF TALLAHASSEE

DOCKET NO. 060635-EU

MARCH 9, 2007

Q. Please state your name and business address.

A. My name is Myron Rollins. My business address is 11401 Lamar Avenue, Overland Park KS 66211

Q. By whom are you employed and in what capacity?

A. I am employed by Black & Veatch Corporation. My current position is Project Manager.

Q. Have you previously filed testimony in this proceeding?

A. Yes.

Q. Have your position, duties or responsibilities changed since you last filed testimony in this docket.

A. No.

Q. What is the purpose of this supplemental testimony?

A. The purpose of my testimony is to present revisions in some of the economic modeling presented at the January hearing in this matter. The revisions are necessary to more appropriately reflect operating constraints in the City of Tallahassee's (City's) electric system and the potential operating characteristics of the Taylor Energy Center (TEC) related to the other Applicants. My supplemental testimony will explain the modeling revisions and provide revised modeling results for the City. The other participants do not have similar internal operating constraints and thus revised modeling like was conducted for the City is not necessary for the other participants.

However, the revised modeling of the internal operating constraints on the City's electric system identified that a more conservative treatment of the minimum load capability of TEC was appropriate. In an effort to impose the most conservative of constraints on the cost-effectiveness analysis, additional modeling also has been performed for each Applicant, except Reedy Creek Improvement District (RCID), assuming TEC will be dispatched as a "must run" unit, meaning that each Applicant must take at least its respective ownership share of the minimum output of TEC for every hour TEC is available to operate. Additional modeling for RCID was not performed because even under the prior modeling RCID was taking its ownership share of TEC every hour that it was available.

Q. Have you prepared exhibits for your supplemental testimony?

A. Yes. I am sponsoring Supplemental Exhibits No. ___ [MRR-1S and MRR-2S]. These are revisions of Exhibits [BEK-2R and BEK-3R] to Mr. Kushner's supplemental testimony of December 16, 2006. Exhibit No. __ [MRR-2S] presents a series of tables showing the results of the various analyses using the revised modeling for all of the Applicants. As discussed previously in my testimony, the modeling for RCID was not revised; however, the RCID results from Exhibit No. __ [BEK-3R] are reproduced for completeness.

Q. Why have you changed your analysis of the City of Tallahassee's participation in TEC based on new assumptions specific to the City?

A. Our production cost modeling for all of the Applicants was based on the assumption that TEC would be economically dispatched, meaning that TEC would always be dispatched ahead of higher cost units. However, the City's electric system is unique due to its relatively isolated location on the electrical grid, the nature of its transmission interconnections, and the nature of its generation fleet which at the time TEC comes on line will consist primarily of two large combined-cycle units (i.e., Purdom Unit 8 and Hopkins Unit 2). Due to these factors, the City must at times operate its units to ensure that adequate capacity is online to meet operating reliability obligations established by the North American Electric Reliability Corporation (NERC). Because this was not accounted for in the modeling presented for the City at the hearing in this

matter, the modeling results presented at that time over-estimated the amount of savings due to TEC.

Q. When did you become aware of the Tallahassee-specific situation?

A. The City only recently became aware of the discrepancy as part of internal evaluations of a potential new project. City officials promptly advised Black & Veatch of the situation and we began to investigate and determine whether the modeling of the City's electric system and its TEC participation had properly accounted for the dispatch constraints required to comply with NERC reliability standards. Neither the City nor Black and Veatch realized the modeling assumptions underlying the results presented at hearing were incorrect until after the Commission deferred its consideration of Staff's recommendation to March 13, 2007.

Q. What else did you discover regarding modeling for the City's system?

A. The constraints on the City's system sometimes require that more local units are committed than would be necessary solely to meet the City's retail load. This enhanced unit commitment is necessary to ensure adequate capacity is available to respond to unexpected events on the City's electric system, such as the loss of a large generating unit, as well as providing necessary frequency regulation and voltage support for the system. As a result, these committed units may be operated for reliability requirements and not for economics, and sometimes that means they are dispatched at lower output levels and thus higher cost. This situation is most evident during low load periods. Adding TEC to the City's

resource portfolio will tend to further complicate this unit commitment and dispatch routine. That is because when TEC is available to the City's system, it is economical, and would normally be fully dispatched, but the City still has to maintain local generation online to comply with reliability requirements. As a result, the full economic benefit of TEC may not be realized. Especially during periods of low loads, if the City is required to take its minimum share of TEC, the impact of the City's local units operating at low levels is more pronounced and as a result system average production costs can increase.

Q. Did you revise your analyses of the City of Tallahassee's participation in TEC to account for the City's unique operating requirements?

A. Yes. Under my supervision and direction, a unique commitment algorithm for Tallahassee's system was developed to generally reflect when and how much Tallahassee's units must operate to meet NERC operating reliability requirements. After incorporating this algorithm into our production cost model, we re-ran the model to allow Tallahassee's units to be dispatched ahead of TEC as appropriate to meet the NERC reliability requirements.

Q. Please provide the results of your updated economic analysis for the City of Tallahassee.

A. Based on the results of the updated analyses, the cumulative present worth cost (CPWC) of the City of Tallahassee's least-cost expansion plan including participation in TEC is approximately $134.7 million less than the plan not including participation in TEC. These results are shown in the Table 10 of

Exhibit No. __ [MRR-2S]. By comparison, the modeling results presented at the January hearing showed that the CPWC of the plan with TEC would be approximately $188.6 million less than the plan not including TEC. This represents a difference of approximately $53.9 million.

Q. Has City of Tallahassee's DSM cost-effectiveness evaluation been updated using the revised model?

A. Yes. If the City were to realize all of the peak demand savings projected for its DSM portfolio, the City's capacity requirement would be deferred from 2011 to 2016. However, based on our updated modeling discussed above, the City's participation in TEC in 2012 would still provide significant additional CPWC savings of approximately $150.2 million when compared to a capacity expansion plan with the DSM portfolio that does not include participation in TEC.

Q. Please explain why the "must run" assumption used in your additional modeling is "conservative."

A. This additional constraint is conservative from a cost savings perspective because it eliminates any benefit that would otherwise accrue to the Applicants from sharing the output of the unit based upon their combined load.

Q. What were the results of the updated "must run" analyses for the other applicants?

A. The updated results for all of the Applicants are shown in Exhibit No.__ [MRR-2S].

Q. Based on the results of the updated analyses, do you have any opinion as to whether TEC represents the least cost alternative for each of the Applicants?

A. Yes. As compared to the modeling results presented at the January hearing, the updated results show that TEC would result in reduced cost savings under some scenarios. However, the updated modeling results are consistent with the results presented at the hearing and continue to demonstrate that TEC is the most cost-effective and best overall option to meet each of the Applicants need for capacity and fuel diversification.

Q. Does this conclude your supplemental testimony?

A. Yes.

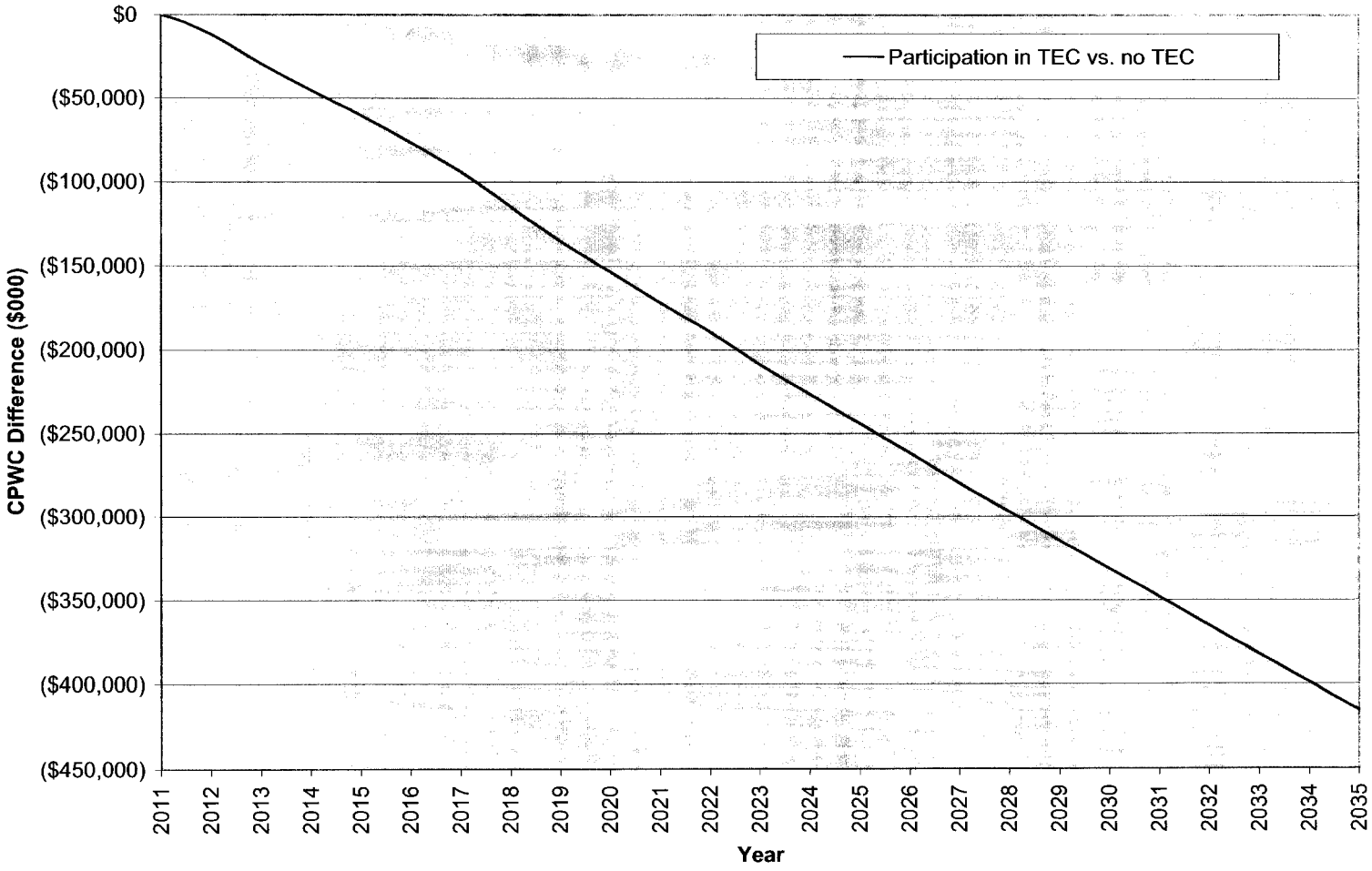

Figure 1. FMPA Cumulative Present Worth Cost (CPWC) Analysis

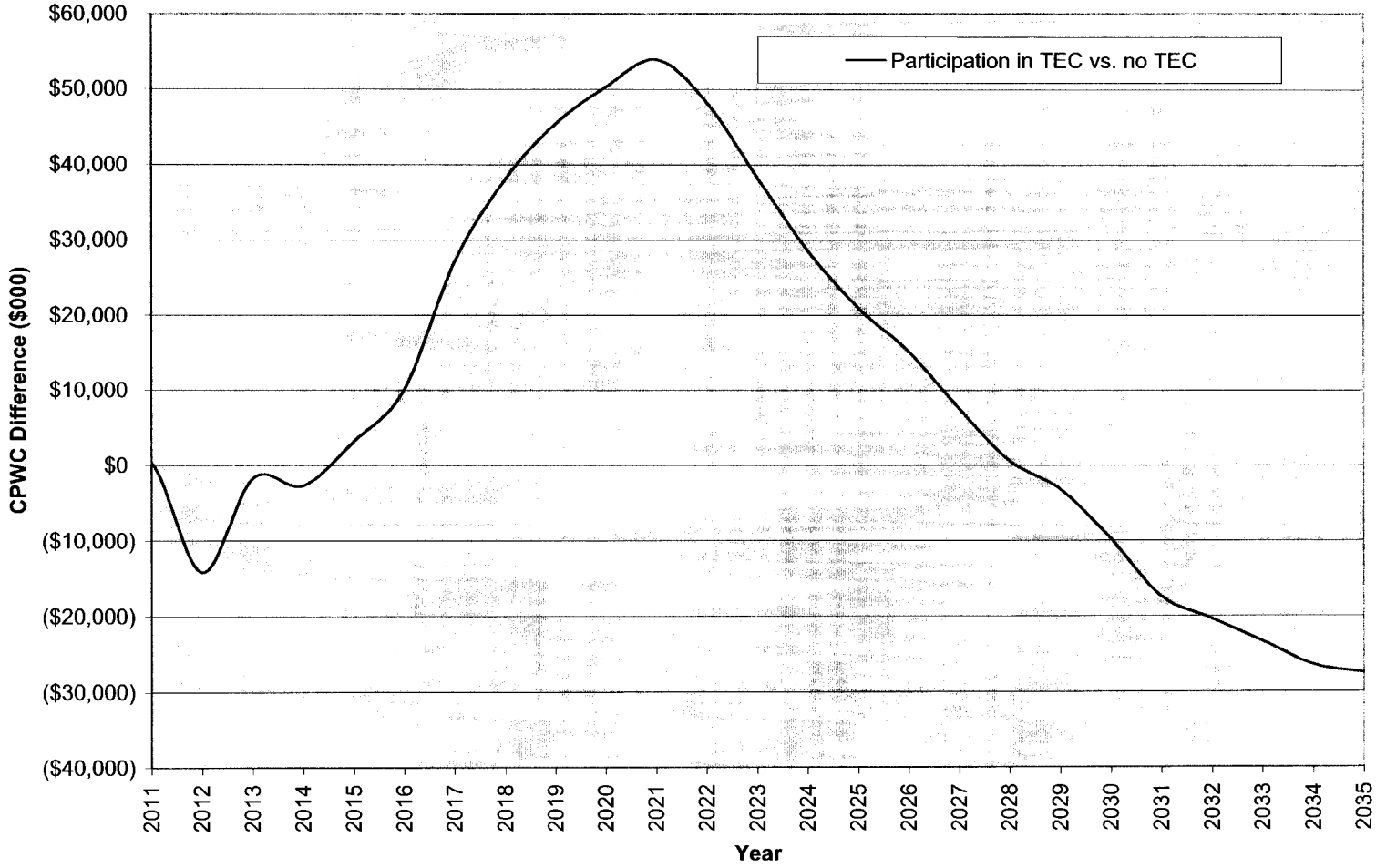

Figure 2. JEA Cumulative Present Worth Cost (CPWC) Analysis

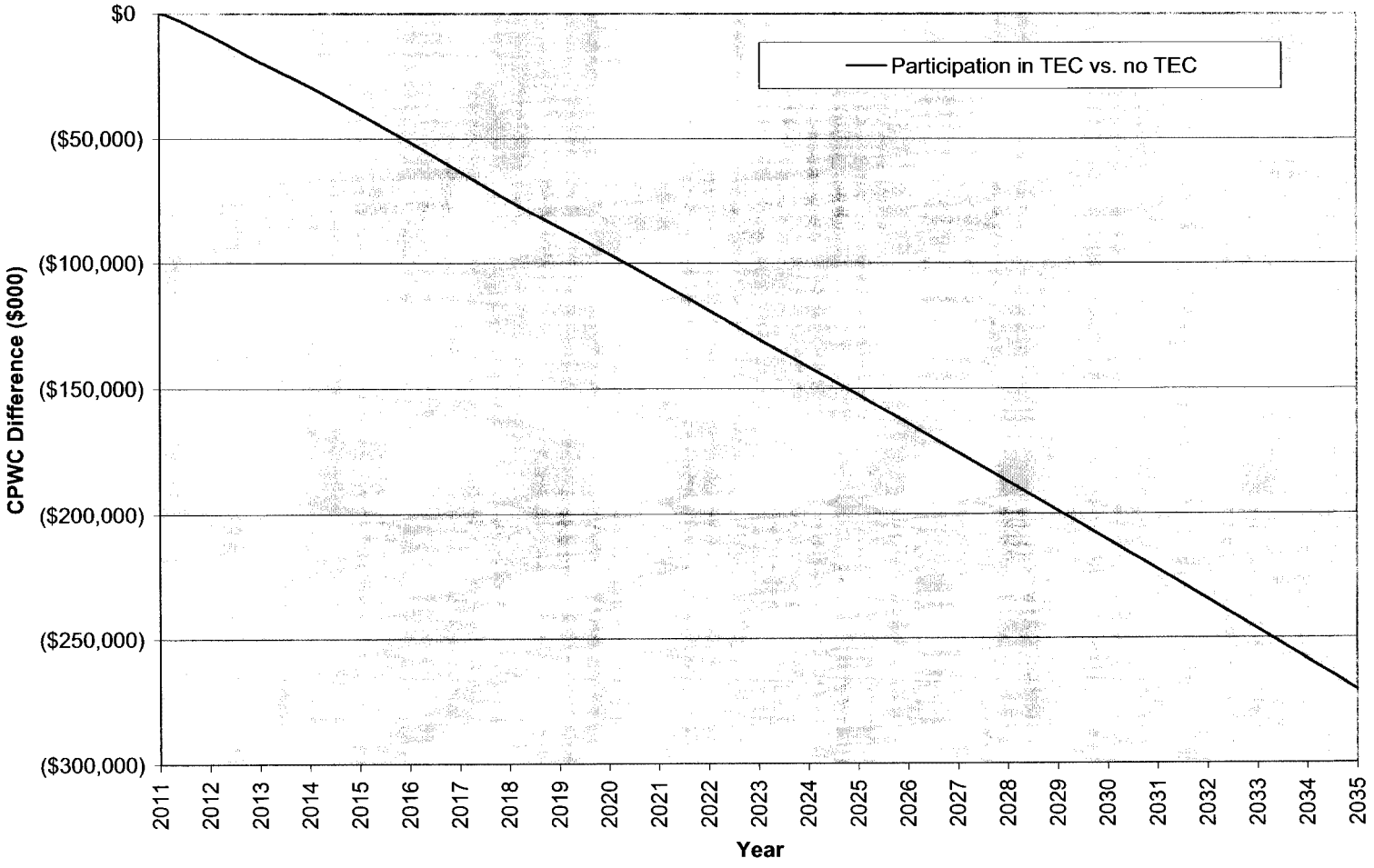

Figure 3. RCID Cumulative Present Worth Cost (CPWC) Analysis

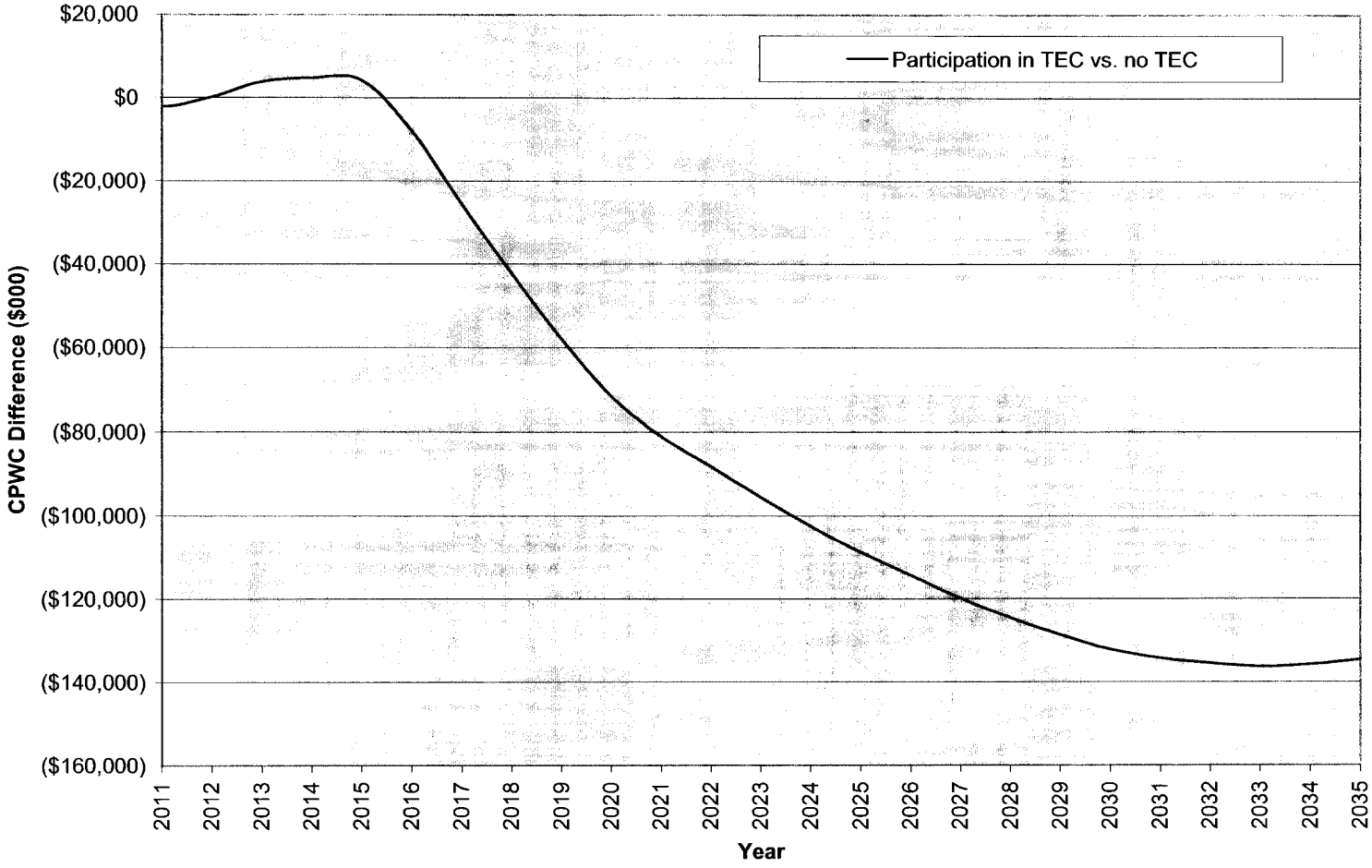

Figure 4. City of Tallahassee Cumulative Present Worth Cost (CPWC) Analysis

Table 1
Summary of FMPA's Sensitivity Analyses
(Varying Base Case Input Parameters)

Sensitivity Case	Expansion Plan CPWC Cost ($ million)		
	With TEC	Without TEC	Differential CPWC Savings with TEC
Base Case	$9,209.0	$9,624.7	$415.6
High Fuel Prices	$10,273.1	$10,640.3	$367.2
Low Fuel Prices	$8,088.4	$8,467.3	$378.8
High Load and Energy Growth	$10,763.0	$11,246.5	$483.4
Low Load and Energy Growth	$7,734.1	$8,170.1	$435.9
High Capital Cost	$9,500.3	$9,965.5	$465.2
Low Capital Cost	$8,861.1	$9,263.3	$402.3
High Emissions Allowances Costs	$9,328.3	$9,750.1	$421.8
Low Emissions Allowances Costs	$9,088.7	$9,499.7	$411.0
Regulated CO_2	$9,705.4	$10,092.7	$387.3

Table 2
Summary of FMPA's Sensitivity Analyses
(Varying External Parameters)

Sensitivity Case	Expansion Plan CPWC Cost ($ million)		
	Sensitivity Scenario	Base Case TEC in 2012	Differential CPWC Savings of Base Case
3x1 Combined Cycle Joint Development	$9,772.0	$9,209.0	$563.0
Three-Train 1x1 IGCC Joint Development	$9,448.7	$9,209.0	$239.7
Second Jointly Owned Pulverized Coal Unit	$8,842.2	$9,209.0	($366.8)
All Natural Gas Capacity Expansion Plan	$10,080.9	$9,209.0	$871.8
Biomass Supply-Side Addition with TEC	$9,287.2	$9,209.0	$78.2
Biomass Supply-Side Addition without TEC	$9,722.1	$9,209.0	$513.1
PRB Coal for TEC	$9,234.1	$9,209.0	$25.1

Table 3
Summary of FMPA's Share of Southern's Bids

Sensitivity Case	Expansion Plan CPWC Cost ($ million)		
	Sensitivity Scenario	Base Case TEC in 2012	Differential CPWC Savings of Base Case
Southern's Pulverized Coal Unit	$9,679.8	$9,209.0	$470.7
Southern's 2x1 Combined Cycle Unit	$9,796.0	$9,209.0	$587.0

Table 4
Summary of JEA's Sensitivity Analyses
(Varying Base Case Input Parameters)

Sensitivity Case	Expansion Plan CPWC Cost ($ million)		
	With TEC	Without TEC	Differential CPWC Savings with TEC
Base Case	$14,448.1	$14,475.6	$27.5
High Fuel Prices	$15,879.9	$15,894.1	$14.2
Low Fuel Prices	$12,923.6	$12,905.5	($18.1)
High Load and Energy Growth	$17,921.7	$17,931.0	$9.3
Low Load and Energy Growth	$13,561.6	$13,635.3	$73.7
High Capital Cost	$14,811.1	$14,850.6	$39.5
Low Capital Cost	$14,057.8	$14,093.5	$35.8
High Emissions Allowance Costs	$14,754.4	$14,781.7	$27.3
Low Emissions Allowance Costs	$14,192.7	$14,194.0	$1.3
Regulated CO_2	$15,950.7	$16,000.3	$49.6

Table 5
Summary of JEA's Sensitivity Analyses
(Varying External Parameters)

Sensitivity Case	Expansion Plan CPWC Cost ($ million)		
	Sensitivity Scenario	Base Case TEC in 2012	Differential CPWC Savings of Base Case
3x1 Combined Cycle Joint Development	$14,712.7	$14,448.1	$264.6
Three-Train 1x1 IGCC Joint Development	$14,477.8	$14,448.1	$29.7
Second Jointly Owned Pulverized Coal Unit	$14,448.1	$14,448.1	$0.0
All Natural Gas Capacity Expansion Plan	$15,152.6	$14,448.1	$704.6
Biomass Supply-Side Addition with TEC	$14,527.0	$14,448.1	$78.9
Biomass Supply-Side Addition without TEC	$14,527.1	$14,448.1	$79.0
PRB Coal for TEC	$14,469.6	$14,448.1	$21.5

Table 6
Summary of JEA's Share of Southern's Bids

Sensitivity Case	Expansion Plan CPWC Cost ($ million)		
	Sensitivity Scenario	Base Case TEC in 2012	Differential CPWC Savings of Base Case
Southern's Pulverized Coal Unit	$14,838.7	$14,448.1	$390.6
Southern's 2x1 Combined Cycle Unit	$14,717.8	$14,448.1	$269.7

Table 7
Summary of RCID's Sensitivity Analyses
(Varying Base Case Input Parameters)

Sensitivity Case	Expansion Plan CPWC Cost ($ million)		
	With TEC	Without TEC	Differential CPWC Savings with TEC
Base Case	$1,816.4	$2,072.0	$255.6
High Fuel Prices	$1,968.7	$2,252.0	$283.3
Low Fuel Prices	$1,629.6	$1,804.1	$174.5
High Load and Energy Growth	$1,899.1	$2,142.6	$243.5
Low Load and Energy Growth	$1,757.5	$2,015.0	$257.5
High Capital Cost	$1,886.5	$2,127.8	$241.3
Low Capital Cost	$1,746.4	$2,016.1	$269.8
High Emissions Allowances Costs	$1,817.1	$2,073.3	$256.3
Low Emissions Allowances Costs	$1,807.2	$2,070.6	$263.4
Regulated CO_2	$1,870.4	$2,097.0	$226.5

Table 8
Summary of RCID's Sensitivity Analyses
(Varying External Parameters)

Sensitivity Case	Expansion Plan CPWC Cost ($ million)		
	Sensitivity Scenario	Base Case TEC in 2012	Differential CPWC Savings of Base Case
3x1 Combined Cycle Joint Development	$1,940.4	$1,816.4	$124.0
Three-Train 1x1 IGCC Joint Development	$1,870.8	$1,816.4	$54.4
Second Jointly Owned Pulverized Coal Unit	$1,589.2	$1,816.4	($227.2)
Biomass Supply-Side Addition with TEC	$1,772.7	$1,816.4	($43.7)
Biomass Supply-Side Addition without TEC	$2,009.9	$1,816.4	$193.4
PRB Coal for TEC	$1,825.7	$1,816.4	$9.3

Table 9
Summary of RCID's Share of Southern's Bids

Sensitivity Case	Expansion Plan CPWC Cost ($ million)		
	Sensitivity Scenario	Base Case TEC in 2012	Differential CPWC Savings of Base Case
Southern's Pulverized Coal Unit	$1,908.9	$1,816.4	$92.5
Southern's 2x1 Combined Cycle Unit	$2,010.4	$1,816.4	$193.9

Table 10
Summary of the City's Sensitivity Analyses
(Varying Base Case Input Parameters)

Sensitivity Case	Expansion Plan CPWC Cost ($ million)		
	With TEC	Without TEC	Differential CPWC Savings with TEC
Base Case	$4,441.4	$4,576.1	$134.7
High Fuel Prices	$5,018.4	$5,074.3	$55.9
Low Fuel Prices	$3,629.1	$3,733.4	$104.3
High Load and Energy Growth	$4,769.8	$4,876.0	$106.2
Low Load and Energy Growth	$4,166.7	$4,309.4	$142.7
High Capital Cost	$4,528.6	$4,698.4	$169.8
Low Capital Cost	$4,358.0	$4,453.7	$95.7
High Emissions Allowance Costs	$4,467.2	$4,615.8	$148.6
Low Emissions Allowance Costs	$4,416.3	$4,536.4	$120.1
Regulated CO_2	$4,525.0	$4,629.4	$104.4

Table 11
Summary of the City's Sensitivity Analyses
(Varying External Parameters)

Sensitivity Case	Expansion Plan CPWC Cost ($ million)		
	Sensitivity Scenario	Base Case TEC in 2012	Differential CPWC Savings of Base Case
3x1 Combined Cycle Joint Development	$4,737.8	$4,441.4	$296.4
Three-Train 1x1 IGCC Joint Development	$4,577.2	$4,441.4	$135.8
Second Jointly Owned Pulverized Coal Unit	$4,468.2	$4,441.4	$26.8
All Natural Gas Capacity Expansion Plan	$4,715.8	$4,441.4	$274.4
Biomass Supply-Side Addition with TEC	$4,456.9	$4,441.4	$15.5
Biomass Supply-Side Addition without TEC	$4,601.1	$4,441.4	$159.7
PRB Coal for TEC	$4,456.3	$4,441.4	$14.9

Table 12
Summary of the City's Share of Southern's Bids

Sensitivity Case	Expansion Plan CPWC Cost ($ million)		
	Sensitivity Scenario	Base Case TEC in 2012	Differential CPWC Savings of Base Case
Southern's Pulverized Coal Unit	$4,653.0	$4,441.4	$211.6
Southern's 2x1 Combined Cycle Unit	$4,813.2	$4,441.4	$371.8