

ORIGINAL



TAMPA ELECTRIC COMPANY
BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 992014-EI

TESTIMONY
AND EXHIBIT OF

MARK J. HORNICK

DOCUMENT NUMBER-DATE

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FPSC-RECORDS/REPORTING

1 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

2 PREPARED DIRECT TESTIMONY

3 OF

4 MARK J. HORNICK

5
6 Q. Please state your name, address, occupation and employer.

7
8 A. My name is Mark J. Hornick. My business address is 702
9 North Franklin Street, Tampa, Florida 33602. I am the
10 Director, Fuels in Tampa Electric Company's ("Tampa
11 Electric" or "company") Environmental and Fuels
12 Department.

13
14 Q. Please provide a brief outline of your educational
15 background and business experience.

16
17 A. I received a Bachelor of Science Degree in Mechanical
18 Engineering in 1981 from the University of South Florida.
19 I began my career with Tampa Electric in 1981 as an
20 Engineer Associate in the Production Department. I have
21 held a number of different engineering positions at Tampa
22 Electric's power generating stations and in 1990, I was
23 promoted to Manager, Operations at Hookers Point Station.
24 In 1991, I was named Manager, Support at Big Bend
25 Station. My managerial responsibilities at Big Bend

1 have included Electrical Maintenance, Instrument and
2 Control Maintenance, Coal Field Operations, Engineering,
3 Water and Fuels Analysis, Engineering and Plant
4 Operations. In July 1998, I was promoted to my current
5 position as Director, Fuels. I am responsible for
6 managing Tampa Electric's fuel-related activities
7 including planning, procurement, inventory, usage and
8 combustion by-product management.

9
10 Q. Have you previously testified before the Florida Public
11 Service Commission ("Commission")?

12
13 A. Yes. I have filed testimony in support of Tampa
14 Electric's benchmark filings related to coal purchases
15 and coal transportation in Docket No. 990001-EI.

16
17 Q. What is the purpose of your testimony in this proceeding?

18
19 A. The purpose of my testimony is to support the various
20 fuel prices and sulfur dioxide ("SO₂") price and
21 availability projections used in comparing various
22 options for Clean Air Act ("CAA") compliance. I will
23 also discuss the availability of natural gas to serve the
24 repowering of Gannon Station ("Gannon Repowering
25 Project").

1 Q. Have you prepared an exhibit to support your testimony?

2

3 A. Yes I have. My Exhibit No. ____ (MJH-1), prepared under
4 my direction and supervision, consists of one document.

5

6 **Fuel and SO₂ Forecasts**

7 Q. How did Tampa Electric develop and utilize the fuel and
8 SO₂ allowance price forecasts it relied upon in the Gannon
9 Repowering Project analysis?

10

11 A. Tampa Electric monitors the prices of all fuels and SO₂
12 allowances on a regular basis. The prices are tracked
13 through numerous periodicals and by actual buying
14 experience, and through market information obtained
15 through supply representatives. A forecast of expected
16 fuel prices is developed annually to support the
17 company's planning process.

18

19 The development of the forecast includes a review of
20 historical fuel prices compared with new projections
21 obtained from various consultants and agencies including
22 Energy Information Administration, American Gas
23 Association, Cambridge Energy Research Associates,
24 Resource Data International, and Energy Ventures
25 Analysis. Fuel pricing publications include Coal

1 Outlook, Coal Daily, Natural Gas Week, Platt's Oilgram,
2 Oil and Gas Journal, and Pace Petroleum Coke Quarterly.
3 From these publications, fuel and SO₂ allowance price
4 projections were developed by reviewing published
5 forecasts from several industry and government sources
6 for regional markets and transportation costs.
7

8 Q. Please describe the fuel and SO₂ price forecasts shown in
9 Document No. 1 of your Exhibit.
10

11 A. Document No. 1 shows fuel price forecasts for No. 2 oil,
12 No. 6 oil, natural gas and three different coal types for
13 2000 through 2020 in five-year increments. They show
14 Tampa Electric's price forecasts compare favorably to
15 those of various independent sources.
16

17 Tampa Electric's fuel price forecasts show moderate
18 escalations in oil and natural gas prices and, generally,
19 the company's price fell between the two reference
20 forecasts. The escalation of higher sulfur West Kentucky
21 coals is projected to be essentially flat while lower
22 sulfur coals from East Kentucky are projected to have a
23 slight escalation over the forecast period. The very low
24 sulfur coals from the Powder River Basin are expected to
25 have a moderate escalation due to increasing demand.

1 Tampa Electric's coal forecasts also compare favorably
2 with those from independent sources.

3
4 Tampa Electric's projected SO₂ allowance prices were
5 forecasted to escalate in the near term and decline for
6 the remainder of the forecast period. This forecast also
7 compares well with independent forecasts.

8
9 Q. What assumptions has Tampa Electric made regarding the
10 availability of SO₂ allowances?

11
12 A. In the short term, the company believes that there will
13 be a high availability of SO₂ allowances. This could
14 change, however, if the federal government begins
15 retiring allowances.

16
17 Q. What other information does Tampa Electric rely upon in
18 identifying the appropriate fuel types to include in
19 price forecasts?

20
21 A. Tampa Electric relies on several other factors when
22 performing forecasts. Fuel quality parameters are
23 critically important to the operation of coal-fired
24 units. Parameters such as Btu, ash, moisture and sulfur
25 content as well as ash fusion temperatures must be

1 considered in selecting coals that will perform properly
2 in each boiler and comply with environmental emissions
3 requirements. Price forecasts were developed for a
4 variety of coals that can be successfully used in Tampa
5 Electric's generating units given the company's
6 operational and environmental requirements.

7
8 Q. What fuel supply alternatives would Tampa Electric have
9 considered as part of its Comprehensive CAA Compliance
10 Plan ("Compliance Plan"), had it not entered into the
11 agreement with the Florida Department of Environmental
12 Protection ("DEP")?

13
14 A. Several fuel supply alternatives were considered as part
15 of the analysis of alternatives for the company's
16 Compliance Plan. Additional environmental regulations
17 and permit restrictions in the future could require the
18 use of additional low sulfur coals that are expected to
19 be in high demand and thus higher priced. Under some
20 conditions, post-combustion cleanup technologies such as
21 flue gas desulfurization, selective catalytic reduction,
22 and baghouses could allow for the continued use of high
23 sulfur coals. Very stringent environmental requirements
24 could make switching to natural gas the most viable
25 option.

1 Q. How did Tampa Electric reflect these alternatives in its
2 project analysis?

3

4 A. The company's fuel forecasts encompass a mix of potential
5 fuel sources that might be required in the future. The
6 analyses performed in the Compliance Plan used these
7 forecasts along with cost estimates of post-combustion
8 cleanup technologies to select the optimum method for
9 environmental compliance.

10

11 Q. What has been the impact to the fuels and SO₂ allowance
12 markets as the result of recent Environmental Protection
13 Agency ("EPA") actions against coal-fired generation
14 companies?

15

16 A. There has been no discernible change in the coal market
17 based on the EPA's recent actions. This is primarily
18 because coal is currently priced near marginal cost.
19 However, over the past few months, the SO₂ allowance
20 market has declined significantly. In 1999, allowances
21 were trading above \$210 per ton. Since the announcement
22 of the EPA's and Department of Justice's legal actions,
23 the prices have dropped to under \$150 per ton. For
24 example, on the day Tampa Electric announced its
25 settlement with DEP, allowance prices dropped

1 approximately \$7 per ton. Document No. 1, Page 3 of 3
2 of my Exhibit shows the actual SO₂ allowance prices during
3 1999.

4
5 Q. What impact will the Gannon Repowering Project have on
6 the company's existing fuel and transportation contracts?

7
8 A. Gannon Station consumes about 2.8 million tons of coal
9 per year. Beginning in mid-2002, the company will begin
10 reducing its coal purchases due to the Gannon Repowering
11 Project. Consumption of coal will be reduced in 2003 and
12 eliminated altogether by the end of 2004.

13
14 Tampa Electric has one long-term contract with American
15 Coal Company for Gannon Station coal through 2004. This
16 contract provides the flexibility to reduce the minimum
17 quantity in 2002 and will not be an issue with the
18 repowering. All other fuel supply contracts for Gannon
19 Station are short term and will not be impacted by the
20 project.

21
22 Tampa Electric's coal transportation contract runs
23 through 2003 and has a minimum quantity provision. Tampa
24 Electric plans to renegotiate this provision of the
25 contract.

1 Natural Gas Assumptions

2 Q. How does Tampa Electric anticipate meeting the natural
3 gas requirements for the Gannon Repowering Project?

4
5 A. With respect to gas transportation services, there are
6 currently three pipeline companies seeking FERC approval
7 for entry into Florida: Buccaneer Gas Pipeline Company,
8 L.L.C.; Gulfstream Natural Gas System, L.L.C.; and
9 Sawgrass Energy Transmission System, L.L.C. Each of
10 these pipeline companies is proposing projects to bring
11 approximately one billion cubic feet of natural gas into
12 Florida each day, each of which would significantly
13 exceed the daily needs of the Gannon Repowering Project.

14
15 Based on proposed routings, any of these pipelines could
16 easily supply gas to the project. The in-service dates
17 for these new pipelines range from early 2002 to early
18 2003, all of which are prior to the scheduled completion
19 of the project. In addition, Florida Gas Transmission
20 ("FGT") is continuing to expand its system. Presently-
21 planned FGT expansions have in-service dates of early
22 2001 and mid-2002 and will provide a significant supply
23 of gas to the Florida market. The availability of
24 natural gas is described further in the direct testimony
25 of Tampa Electric's witness Stephen L. Thumb from Energy

1 Ventures Analysis, Inc.

2
3 Tampa Electric has had discussions regarding pricing and
4 services with each of the proposed pipelines and FGT.
5 The addition of competing pipelines into Florida promises
6 to bring lower transportation rates, greater flexibility,
7 additional services and increased commodity supply.
8 Given the available options, Tampa Electric believes it
9 will be able to negotiate a reliable gas transportation
10 contract for the Gannon Repowering Project. The company
11 expects to complete these negotiations by mid-2000.

12
13 Q. What projections were made for gas transportation
14 pricing?

15
16 A. Economic analyses for the Gannon Repowering Project were
17 performed using two different transportation price
18 assumptions. A base case assumption of \$0.55/Dth
19 transportation charge was utilized. This represents the
20 company's expected negotiated rate available from a new
21 Florida pipeline. A second case was assumed using a
22 \$0.80/Dth transportation charge representing the FTS-2
23 rate from the existing FGT pipeline.

24
25 Q. How will Tampa Electric contract for the commodity?

1 A. Historically, the supply of natural gas to Florida
2 through the FGT system has been adequate to meet market
3 demands. With the availability of additional
4 transportation opportunities, the commodity supply
5 opportunities are expected to improve. New pipelines, or
6 expansion of the existing system, provide access to the
7 Gulf of Mexico producing region. This area has
8 significant production capacity and numerous producers.

9

10 Suppliers will be selected from responses to a standard
11 bid solicitation, in a manner similar to how the company
12 currently fulfills its other fuel needs. Tampa Electric
13 expects to execute both long-term and spot contracts to
14 meet its needs. Due to the level of natural gas
15 production in the supply areas serving the proposed
16 pipelines and FGT, commodity supply is not expected to be
17 an issue of great concern.

18

19 Q. What backup plan does Tampa Electric have in place to
20 deal with an interruption of natural gas?

21

22 A. The Gannon Repowering Project will include No. 2 oil
23 firing capability as a backup fuel. This provides an
24 additional level of reliability for this critical
25 facility.

1 Q. Please summarize your testimony.

2

3 A. My testimony supports the fuel and SO₂ allowance price
4 forecasts used in the evaluation of various CAA
5 compliance options and addresses natural gas availability
6 for the Gannon repowering project. I explain that the
7 fuel price forecasts used in the company's economic
8 evaluations are consistent with government agency and
9 energy industry consultants. They provide a solid basis
10 for economic analysis. My testimony also explains that
11 the proposed expansions and additions to the natural gas
12 transportation system in Florida will allow Tampa
13 Electric to secure a reliable gas supply for its Gannon
14 Repowering Project.

15

16 Q. Does this conclude your testimony?

17

18 A. Yes, it does.

19

20

21

22

23

24

25

TAMPA ELECTRIC COMPANY
DOCKET NO. 992014-EI
WITNESS: MARK J. HORNICK
EXHIBIT NO. _____ (MJH-1)

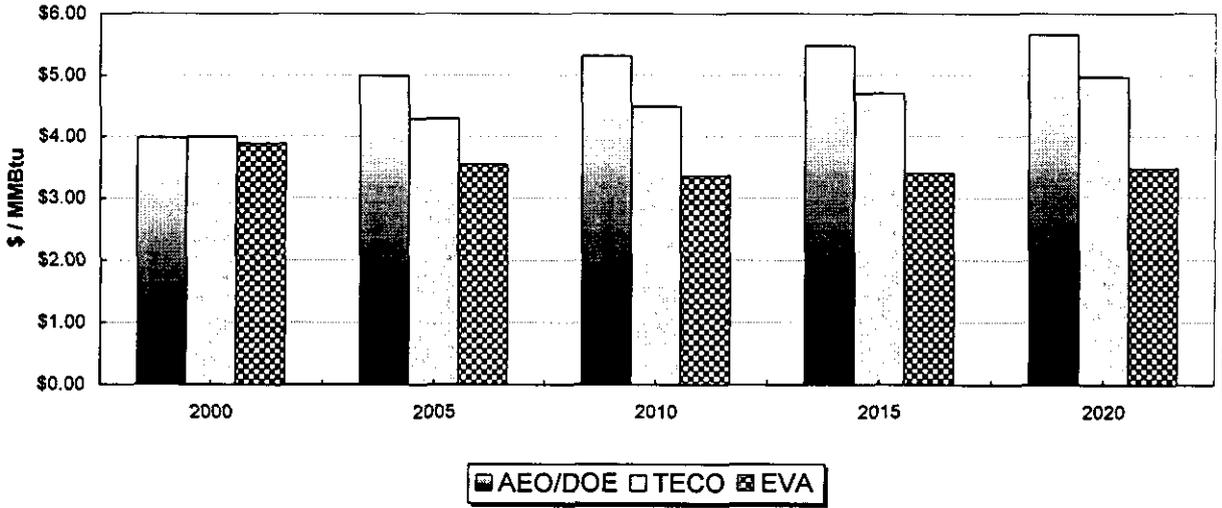
TAMPA ELECTRIC COMPANY
EXHIBIT OF MARK J. HORNICK

INDEX

DOCUMENT NO.	TITLE	PAGE
1	Fuel Price Forecasts for No. 2 Oil, No. 6 Oil, Natural Gas and Three Coal Types for 2000 through 2020 in 5 Year Increments	1
	W. Kentucky, E. Kentucky, and Powder River Basin - Coal Price Forecast Comparison - 2000 through 2020	2
	SO ₂ Allowance Forecast Comparison 2000 through 2020 and Actual 1999 SO ₂ Allowance Pricing	3

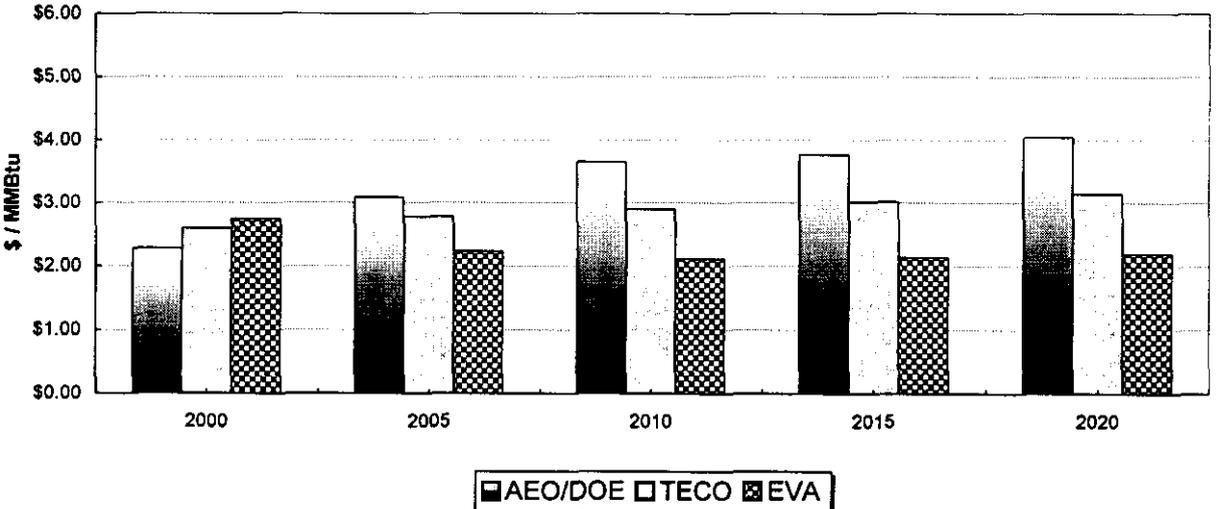
#2 Oil Price Forecast Comparison

Gulf Coast - Constant 1999 Dollars



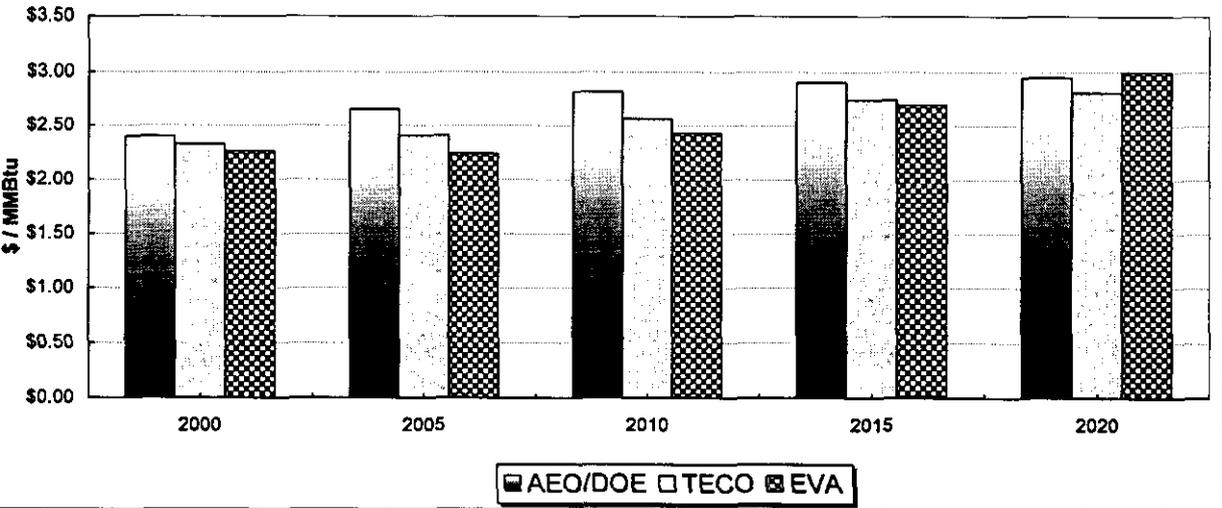
#6 Oil Price Forecast Comparison

Gulf Coast - Constant 1999 Dollars



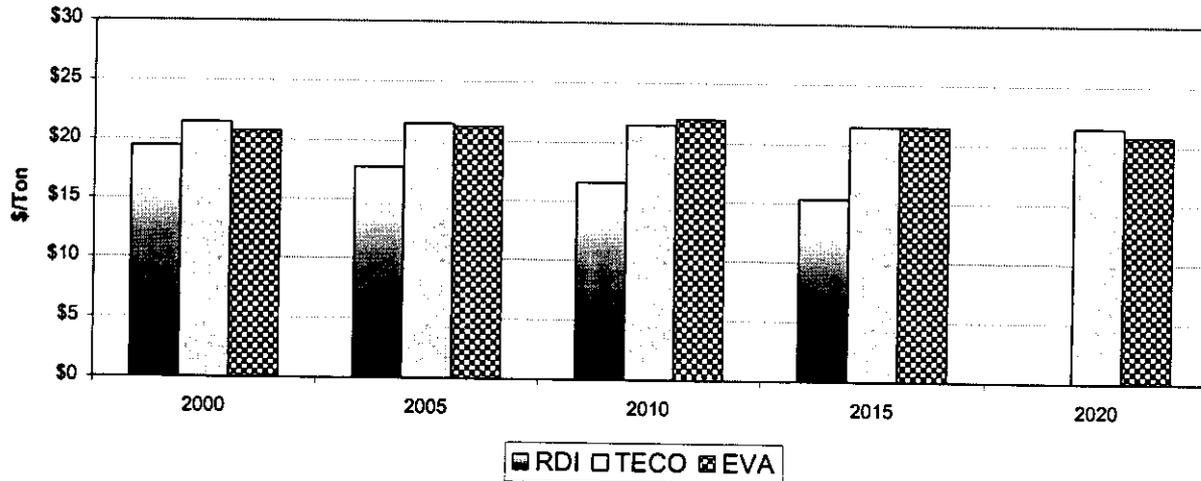
Natural Gas Price Forecast Comparison

Henry Hub - Constant 1999 Dollars



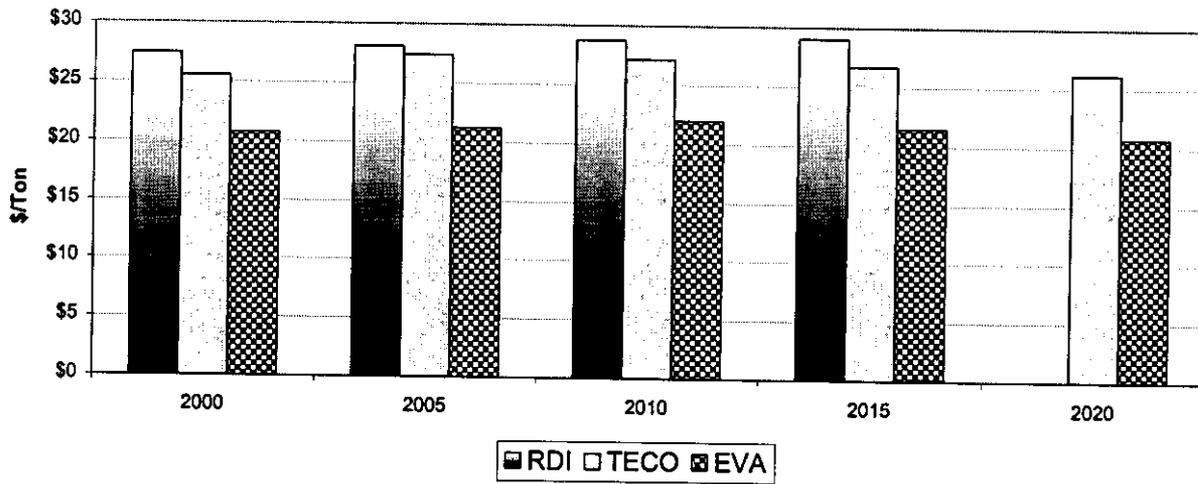
W. Ky Coal Price Forecast Comparison

FOB Mine - Constant 1999 Dollars



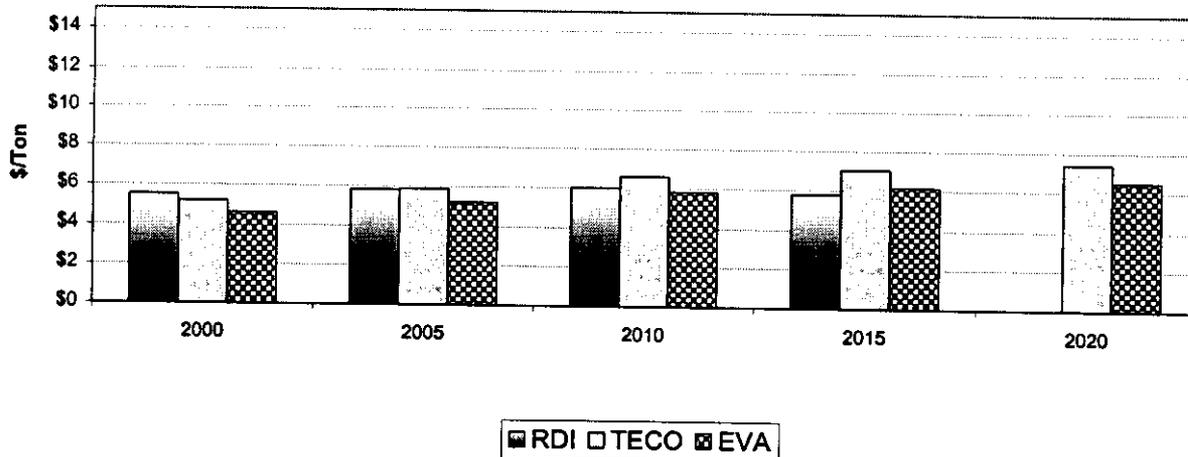
E. Ky Coal Price Forecast Comparison

FOB Mine - Constant 1999 Dollars



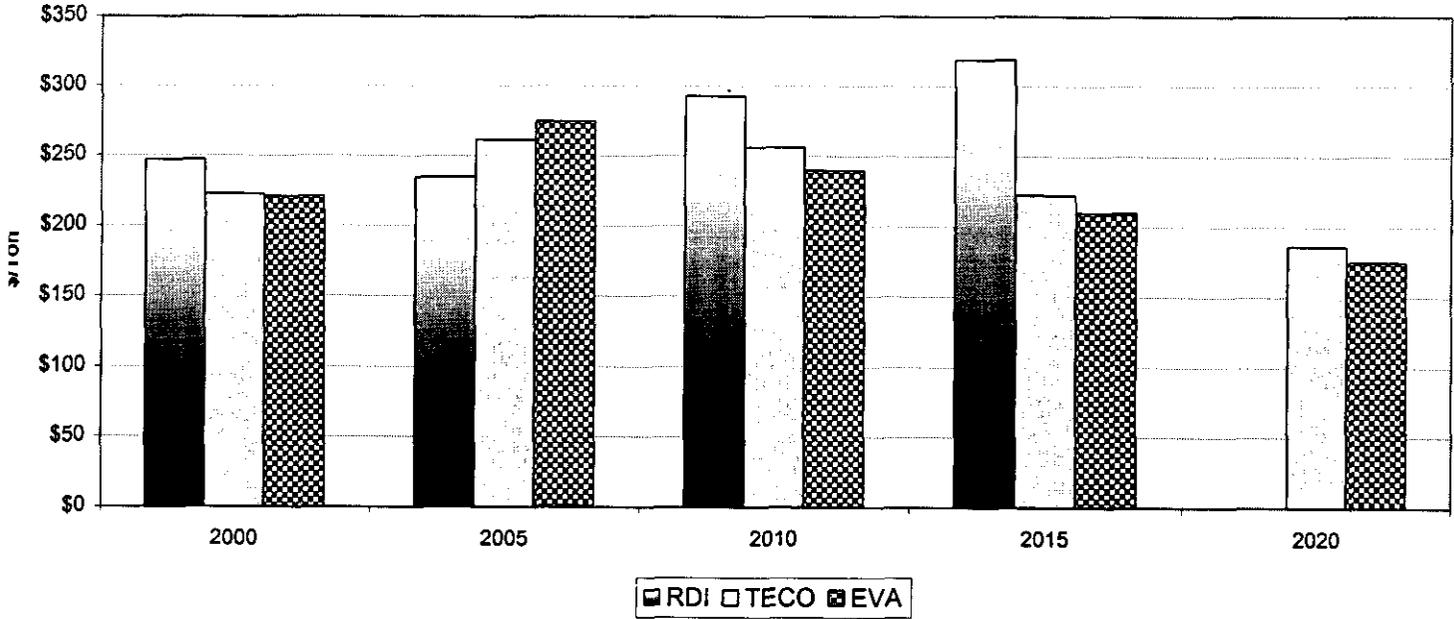
PRB Coal Price Forecast Comparison

FOB Mine - Constant 1999 Dollars

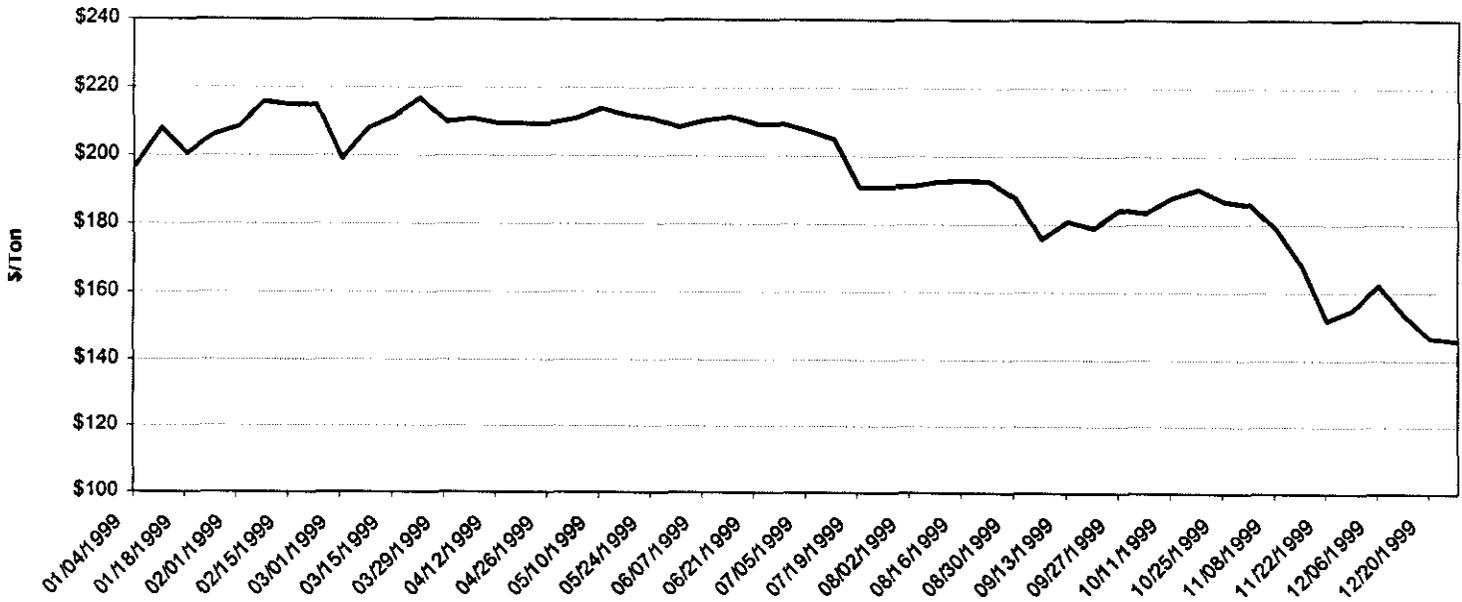


SO2 Allowance Forecast Comparison

Constant 1999 Dollars



Actual 1999 SO2 Allowance Pricing



Source Data: COAL Daily