



Kent W. Blake
Director
State Regulation and Rates

LG&E Energy LLC
220 West Main Street
Louisville, Kentucky 40202
502-627-2573
502-217-2442 FAX
kent.blake@lgeenergy.com

February 1, 2005

RECEIVED

FEB 01 2005

PUBLIC SERVICE
COMMISSION

Elizabeth O'Donnell
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40602-0615

RE: *Investigation into the Membership of Louisville Gas and Electric Company and Kentucky Utilities Company in the Midwest Independent Transmission System Operator, Inc. – Case No. 2003-00266*

Dear Ms. O'Donnell:

Enclosed please find an original and five (5) copies of Louisville Gas and Electric Company's and Kentucky Utilities Company's responses to the Midwest Independent Transmission System Operator, Inc.'s supplemental data requests dated January 20, 2005, in the above-referenced docket.

Should you have any questions concerning the enclosed, please do not hesitate to contact me directly at 502-627-2573.

Sincerely,

Kent W. Blake

cc: Parties of Record

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

FEB 01 2005

PUBLIC SERVICE
COMMISSION

In the Matter of:

INVESTIGATION INTO THE MEMBERSHIP OF)
LOUISVILLE GAS AND ELECTRIC COMPANY)
AND KENTUCKY UTILITIES COMPANY IN THE) CASE NO. 2003-00266
MIDWEST INDEPENDENT TRANSMISSION)
SYSTEM OPERATOR, INC.)

RESPONSE OF
LOUISVILLE GAS AND ELECTRIC COMPANY
AND
KENTUCKY UTILITIES COMPANY
TO THE
MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR, INC.
SUPPLEMENTAL DATA REQUEST
DATED JANUARY 20, 2005

FILED: FEBRUARY 1, 2005

**LOUISVILLE GAS AND ELECTRIC COMPANY
AND
KENTUCKY UTILITIES COMPANY**

CASE NO. 2003-00266

**Response to the Midwest Independent Transmission System Operator Inc.
Supplemental Data Request Dated January 20, 2005**

Question No. 1

Responding Witnesses: Mathew J. Morey / David S. Sinclair

Q-1. Provide all supporting studies, derivations, or workpapers for the supplemental rebuttal testimony and any analyses presented.

A-1. For testimony of David S. Sinclair:

- The attached CD contains .CSV files sourced from the MISO data request response, Access Databases used to format and filter the .CSV files, and excel spreadsheet that calculated the adjustments to the MISO cost/benefit study for generation, off-system sales, and off-system purchases volumes and dollars.

For testimony of Mathew J. Morey:

- Support for Table 1 comes from the following sources. Column 2 - Unit Type information is supplied by LG&E/KU staff. Column 3 - Capacity (in MW) taken from the table supplied with MISO's response to LG&E/KU Data Request No. 28 dated December 20, 2004. Column 4 - Reported capacity factors in the Table 1 are taken from Exhibit RRM-Table 5. Column 5 - MWh Implied by CF (i.e., Capacity Factor) are obtained by multiplying the capacity factor in column 4 by the Capacity listed in Column 3 and multiplying that result by 8,760 hours. Column 6 - Actual MWh from MISO Study is contained on the disk supplied with this response under the file name "testfile.xls." This spreadsheet contains the data extracted from the file "In MISO Total Cost.unt" supplied with the responses from MISO delivered on December 7, 2004 in response to LG&E/KU Data Request No. 54. The values for EEI and OVEC appearing in Column 6 were obtained from

LG&E/KU staff who extracted them from the data contained in the file In MISO Total Cost.unt.

- Support for Table 2B comes from two sources: MISO Exhibit RRM-Table 2 and Table A.3 (at page 48) of the Supplemental Investigation Into the Costs and Benefits to Louisville Gas and Electric Company and Kentucky Utilities Company of RTO Participation Options submitted on September 29, 2004; the latter table was used as the basis for computing simple arithmetic averages across the study period years.
- Support for Table 2C comes from two sources: MISO Exhibit RRM-Table 3 and Table A.6 (at page 54) of the Supplemental Investigation Into the Costs and Benefits to Louisville Gas and Electric Company and Kentucky Utilities Company of RTO Participation Options submitted on September 29, 2004. With the latter table used as the basis for computing simple arithmetic averages across the study period years.
- Support for Table 3 is found in the attached CD under two files: Confidential In MISO Total Cost corrected.xls and a pdf file named 1-5-2005 MISO Adjusted Analysis.pdf.
- Support for Figure 1 (at page 24) is contained on the attached CD under the file named RRM_Exh_Tbl5.xls.
- The claim made on page 26 of the Morey supplemental rebuttal testimony about the \$11.3 million of FTR revenue is based on the file entitled Confidential In MISO Total Cost.xls under the tab labeled FTRs initially filed by MISO on December 7, 2004 in response to LG&E/KU Data Request No. 54.
- Support for Table 5, page 33, draws upon the various numbers throughout the rebuttal testimony including the assumption that the \$21 million surplus FTR revenue is an overstatement that cannot be counted as a benefit.

Adjustments to MISO Cost Benefit Study Results

Volumes - GWH

	<u>MISO-In</u>	<u>MISO-In-Adj</u>	<u>MISO-Out</u>	<u>MISO-Out-Adj</u>
Sales	14,177	5,705	9,127	2,285
Purch	35	555	24	1,239
Gen	46,037	37,044	41,006	32,949
Load	31,894	31,894	31,903	31,903

\$,000 Revenues and Costs (millions \$)

	<u>MISO-In</u>	<u>MISO-In-Adj</u>	<u>MISO-Out</u>	<u>MISO-Out-Adj</u>
Sales	\$ 265,464	\$ 105,916	\$ 164,572	\$ 44,475
Purch	1,047	13,856	883	25,170
Var Gen Cost	<u>669,779</u>	<u>561,079</u>	<u>599,726</u>	<u>502,868</u>
net cost contribution	405,362	469,019	436,037	483,563
			30,675	14,544
				16,131

	<u>Diff</u>	<u>MISO-In Delta</u>	<u>MISO-Out Delta</u>
	\$ (61,441)	\$ (159,548)	\$ (120,097)
	(11,314)	\$ (12,809)	\$ (24,287)
	<u>58,211</u>	\$ 108,700	\$ 96,858
	\$ (14,544)	\$ (63,657)	\$ (47,526)
			\$ (16,131)

**LOUISVILLE GAS AND ELECTRIC COMPANY
AND
KENTUCKY UTILITIES COMPANY**

CASE NO. 2003-00266

**Response to the Midwest Independent Transmission System Operator Inc.
Supplemental Data Request Dated January 20, 2005**

Question No. 2

Responding Witnesses: Mathew J. Morey / David S. Sinclair

- Q-2. Provide all data, input files, intermediate results, or other information necessary to replicate the analyses presented.
- A-2. See response to Question No. 1.

**LOUISVILLE GAS AND ELECTRIC COMPANY
AND
KENTUCKY UTILITIES COMPANY**

CASE NO. 2003-00266

**Response to the Midwest Independent Transmission System Operator Inc.
Supplemental Data Request Dated January 20, 2005**

Question No. 3

Responding Witnesses: Mathew J. Morey / David S. Sinclair

Q-3. To the extent not already identified in response to Data Requests 1 and 2, identify the source of any numerical data (historical, projected, or estimated) used in the analyses presented.

A-3. For the testimony of David S. Sinclair:

For Table 1 on page 9, the "Into Cinergy" historical prices were derived from Platts Megawatt Daily indices. All other sources were cited in the testimony.

For the testimony of Mathew J. Morey:

See response to Question No. 1.

**LOUISVILLE GAS AND ELECTRIC COMPANY
AND
KENTUCKY UTILITIES COMPANY**

CASE NO. 2003-00266

**Response to the Midwest Independent Transmission System Operator Inc.
Supplemental Data Request Dated January 20, 2005**

Question No. 4

Responding Witness: Mathew J. Morey

Q-4. Provide all supporting studies, derivations, or workpapers for each numerical data or assumption used in the analyses presented by Mathew J. Morey for which LG&E/KU was the source.

A-4. See response to Question No. 1.

**LOUISVILLE GAS AND ELECTRIC COMPANY
AND
KENTUCKY UTILITIES COMPANY**

CASE NO. 2003-00266

**Response to the Midwest Independent Transmission System Operator Inc.
Supplemental Data Request Dated January 20, 2005**

Question No. 5

Responding Witnesses: Mathew J. Morey / Susan F. Tierney

Q-5. Provide a copy of, or make available for inspection and copying, each and every document relied upon by Mathew J. Morey and Susan F. Tierney in the preparation of their respective supplemental rebuttal testimony.

A-5. For the testimony of Mathew J. Morey:

See response to Question No. 1.

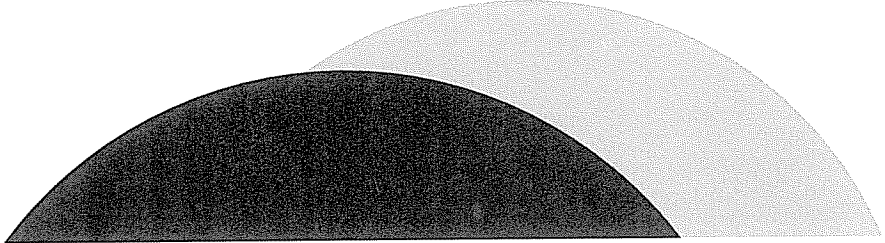
For the testimony of Susan F. Tierney:

In preparing her supplemental rebuttal testimony, Dr. Tierney relied principally upon her extensive experience in and knowledge of the electric industry and its regulation, her understanding of principles and policy issues relating to state and federal rate regulation, and her familiarity with state regulators' interactions with FERC-regulated power pools, ISO, and RTOs. She reviewed publicly-available information on the MISO website. Also, she specifically reviewed several documents in preparing her supplemental rebuttal testimony. These documents are:

1. Margot Lutzenhiser, Public Power Council, "Analysis of RTO/ISO Operating Costs," August 17, 2004 (margotl@ppcpdx.org). Please see the attached.
2. The Public Power Council's Response to FERC's "Staff Report on Cost Ranges for the Development and Operation of a Day One Regional Transmission Organization," filed before the Federal Energy Regulatory Commission, in the Matter of Cost Ranges for the Development and Operation of a Day One Regional Transmission Organization, Docket No. PL04-16-000. Please see http://elibrary.ferc.gov/idmws/docket_search.asp

3. The FERC Staff, Report on "Cost Ranges for the Development and Operation of a Day One Regional Transmission Organization," Docket No. PL04-16-000, October 2004. Please see http://elibrary.ferc.gov/idmws/docket_search.asp

**Attachment to Question No. 5 – Susan F. Tierney
Margot Lutzenhiser, Public Power Council, “Analysis of RTO/ISO
Operating Costs.” August 17, 2004 (margotl@ppcpdx.org)**

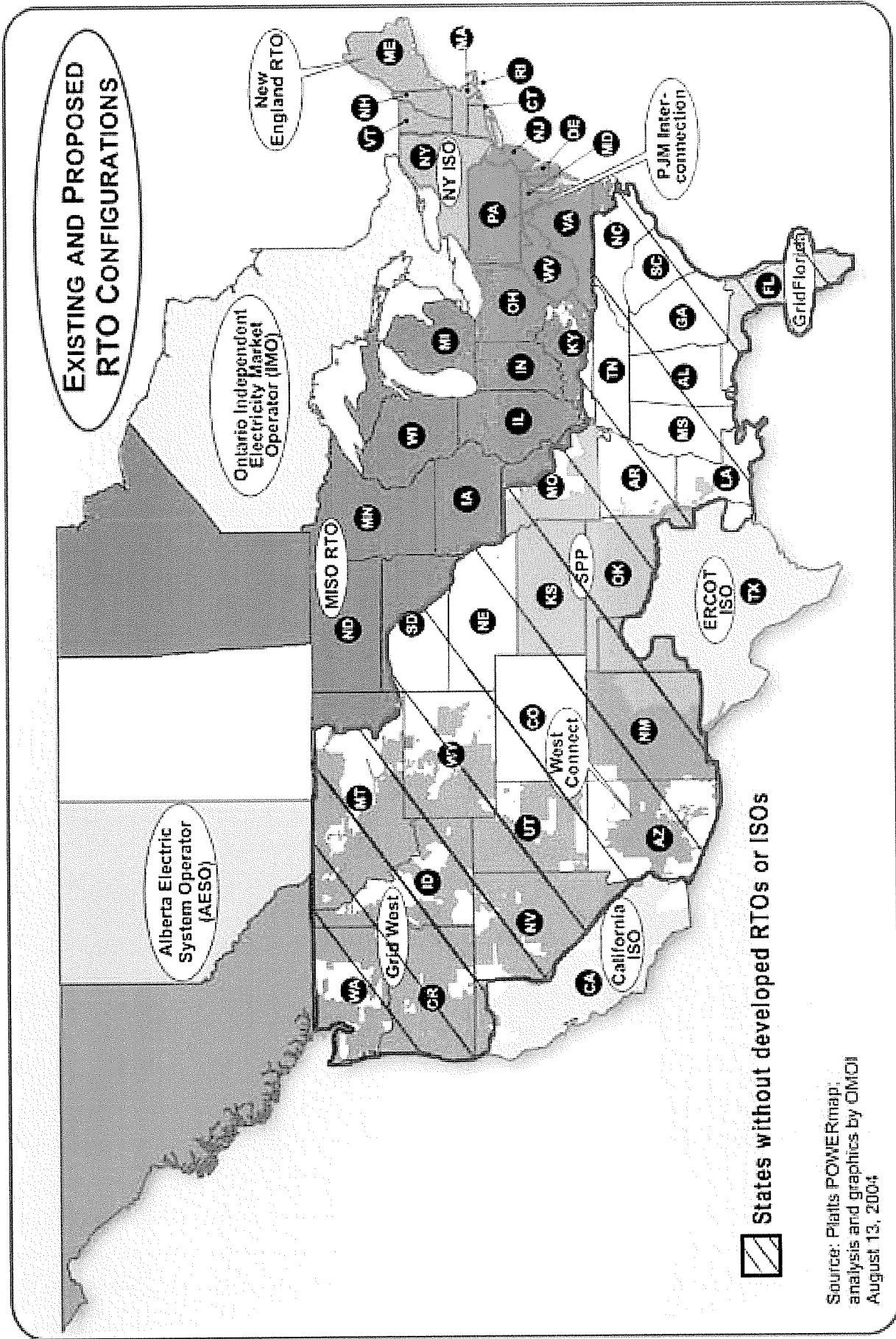


Comparative Analysis of RTO/ISO Operating Costs

August 17, 2004

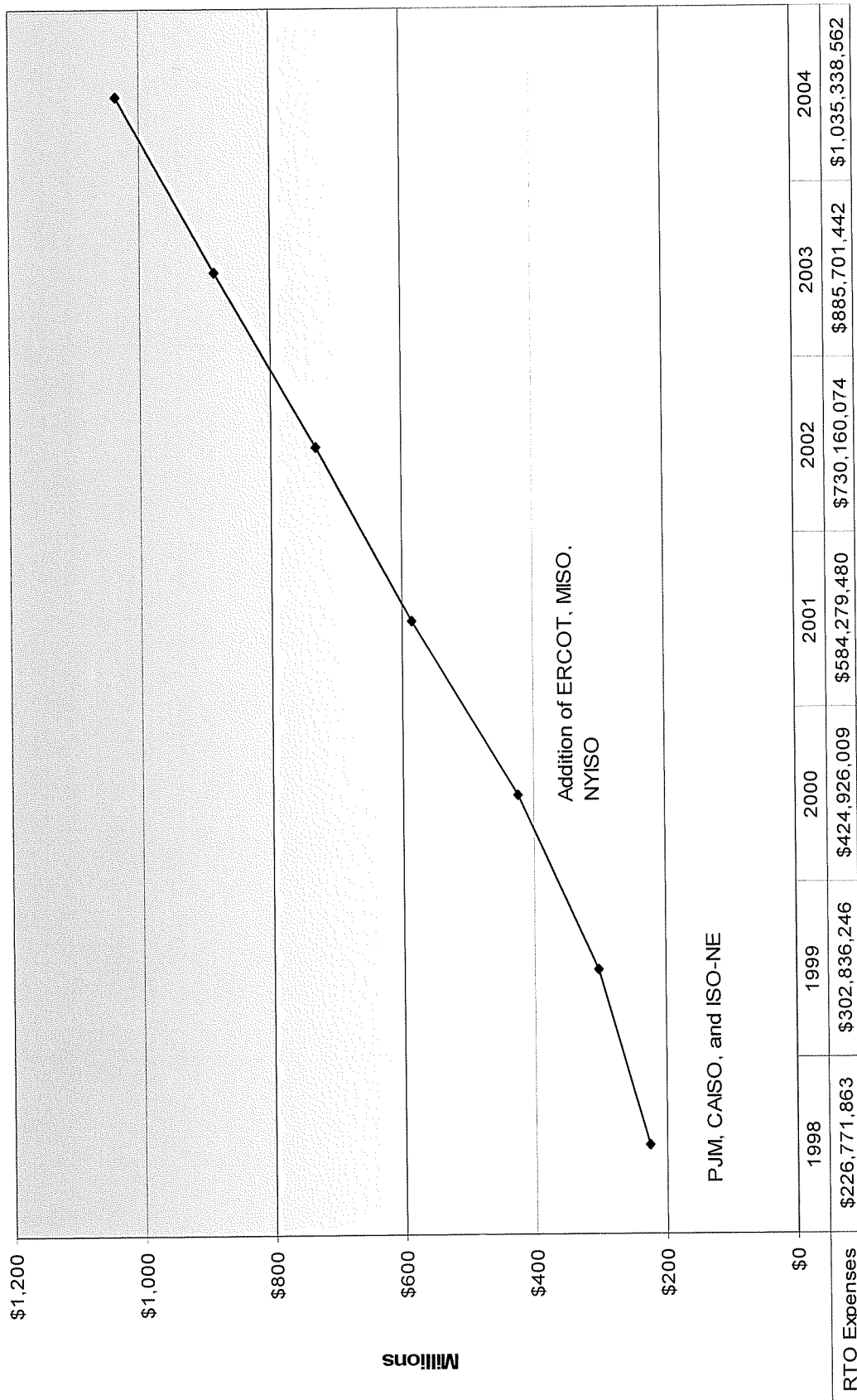
Margot Lutzenhiser
Associate Economist
Public Power Council

Margotl@ppcpdx.org

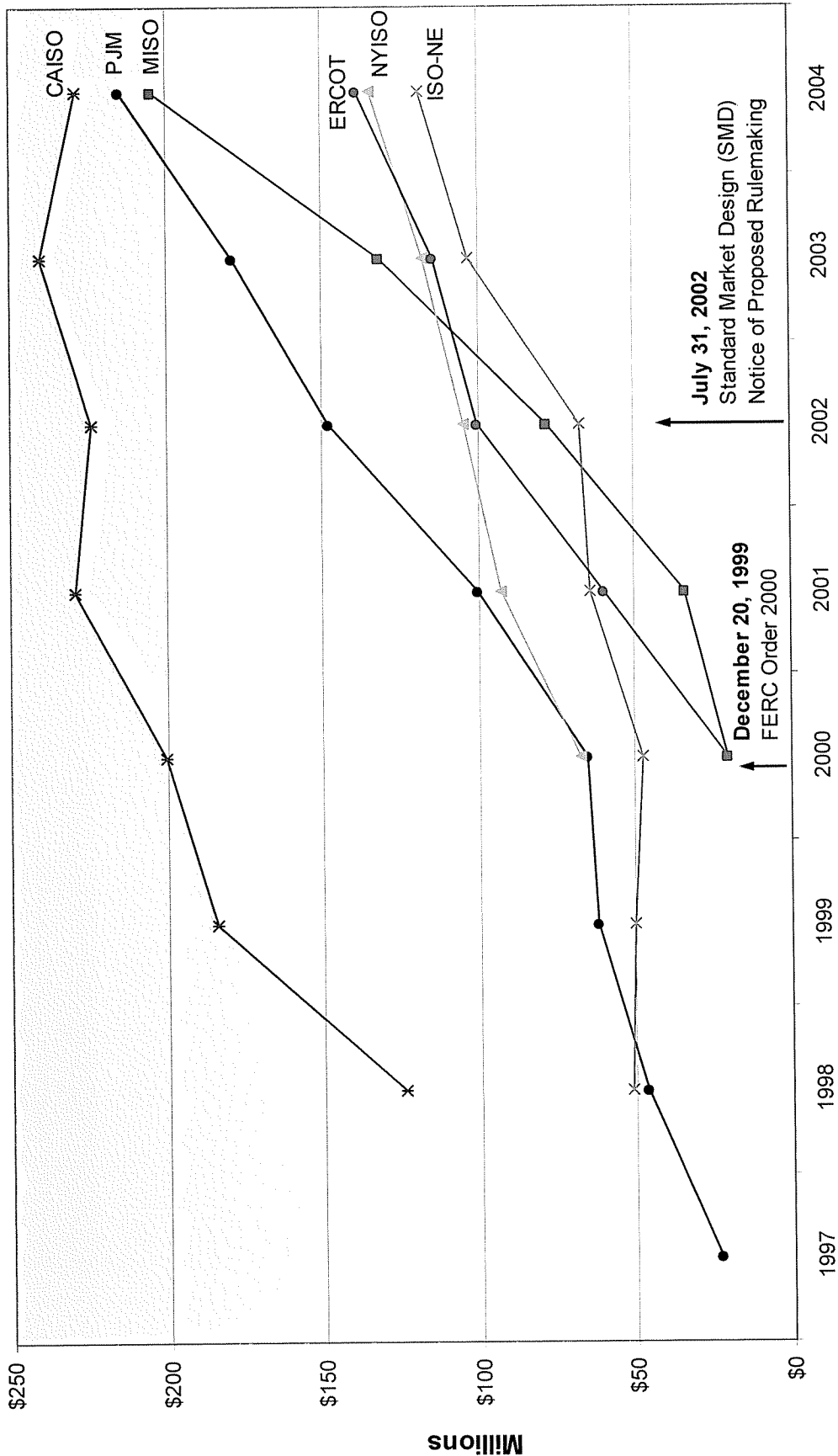


Source: <http://www.ferc.gov/industries/electric/indus-act/rto/rto-map.asp>

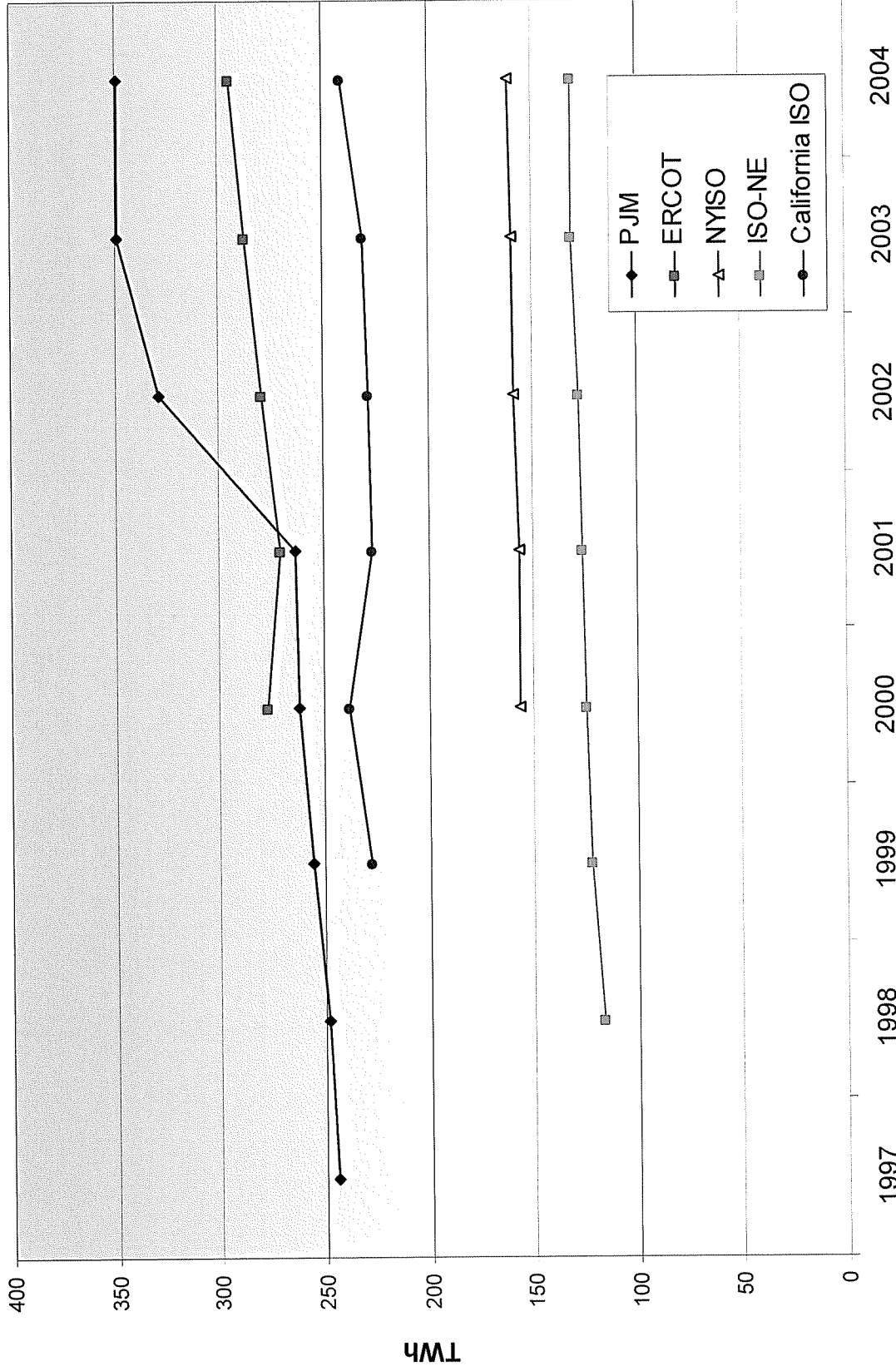
Annual U.S. RTO/ISO Operating Costs (2003 dollars)



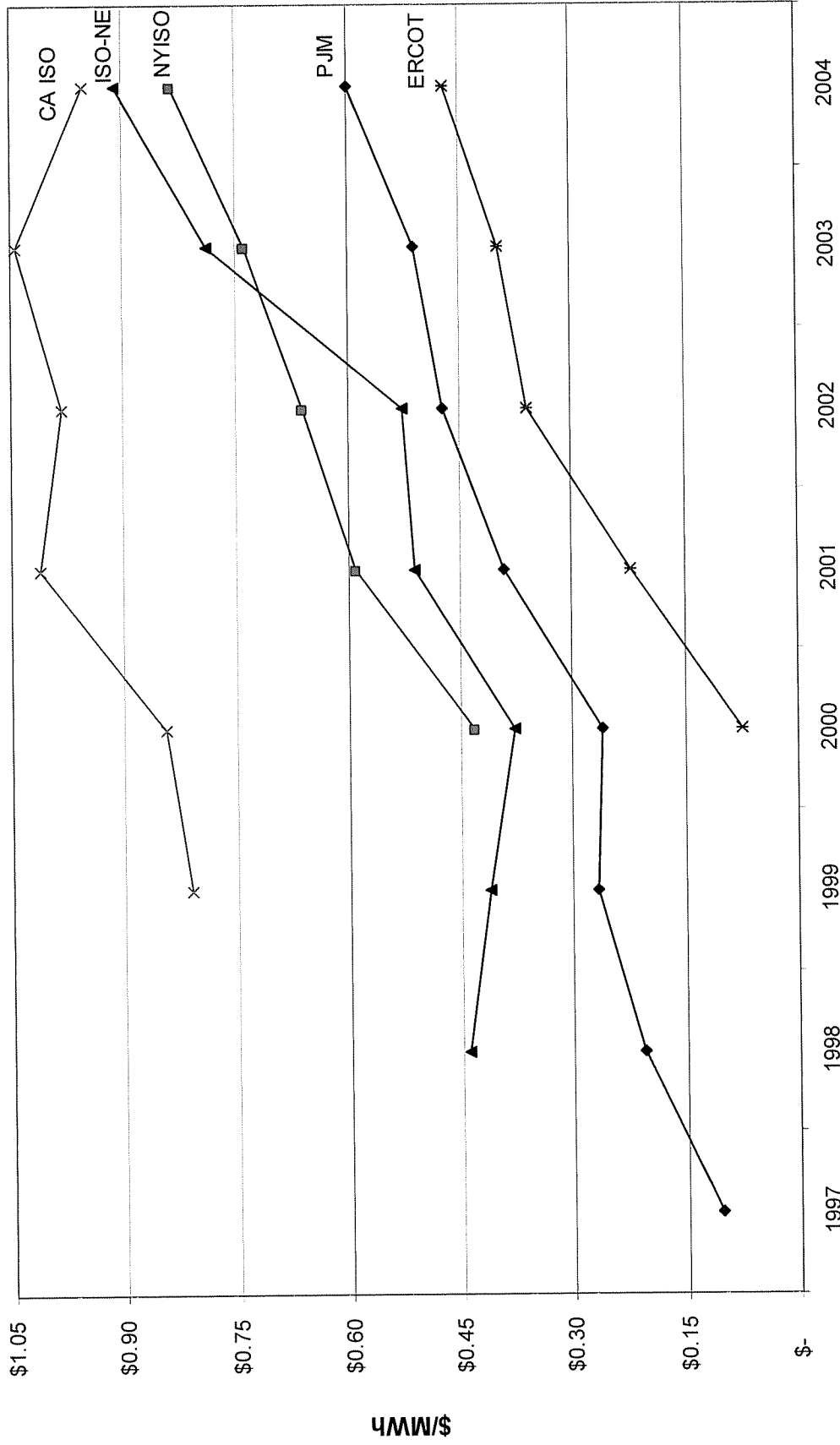
ISO/RTO Annual Operating Costs (Including Amortization, Depreciation and Interest Expenses in 2003 dollars)



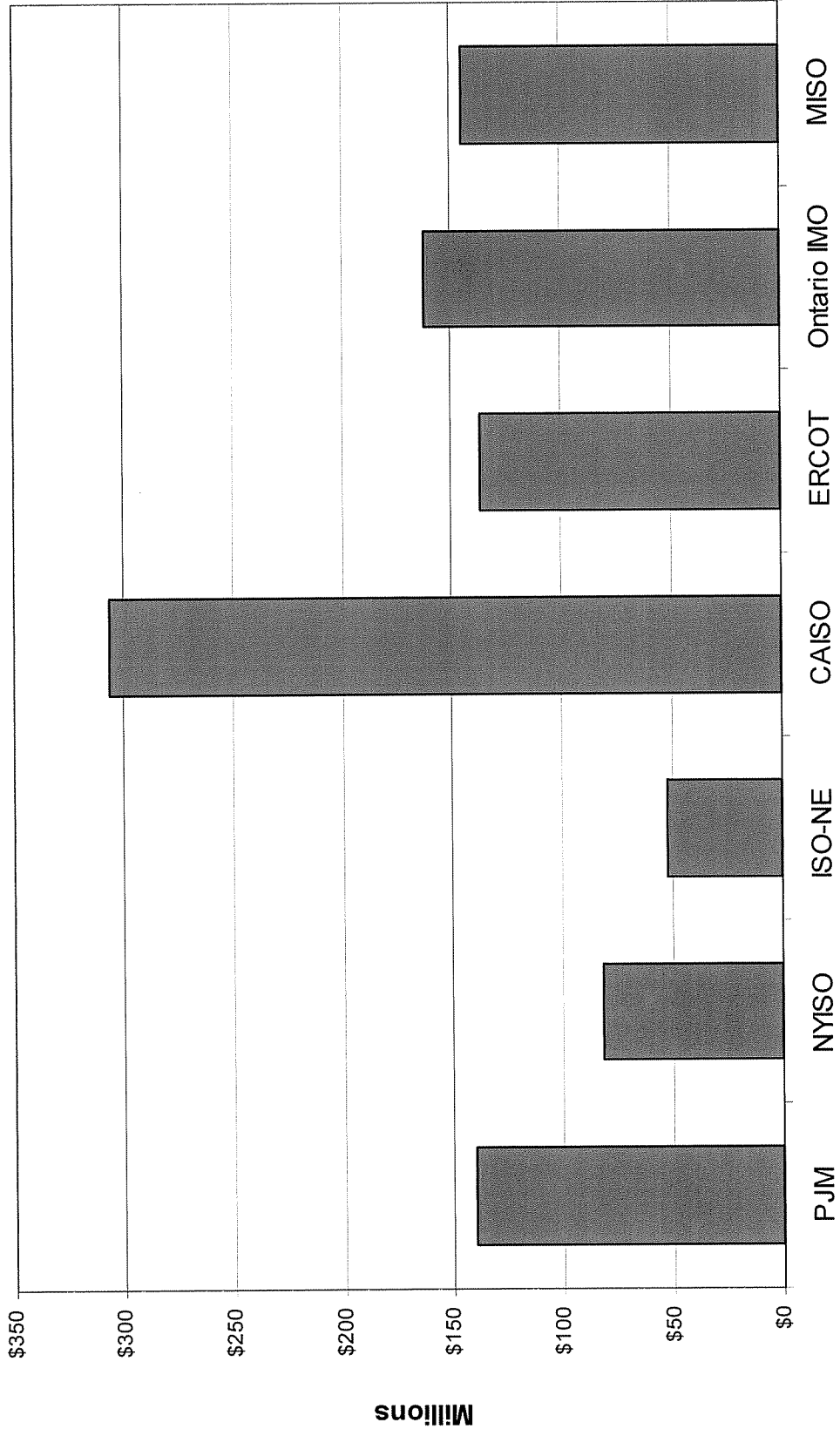
ISO/RTO Net Annual Energy Demand (Load)



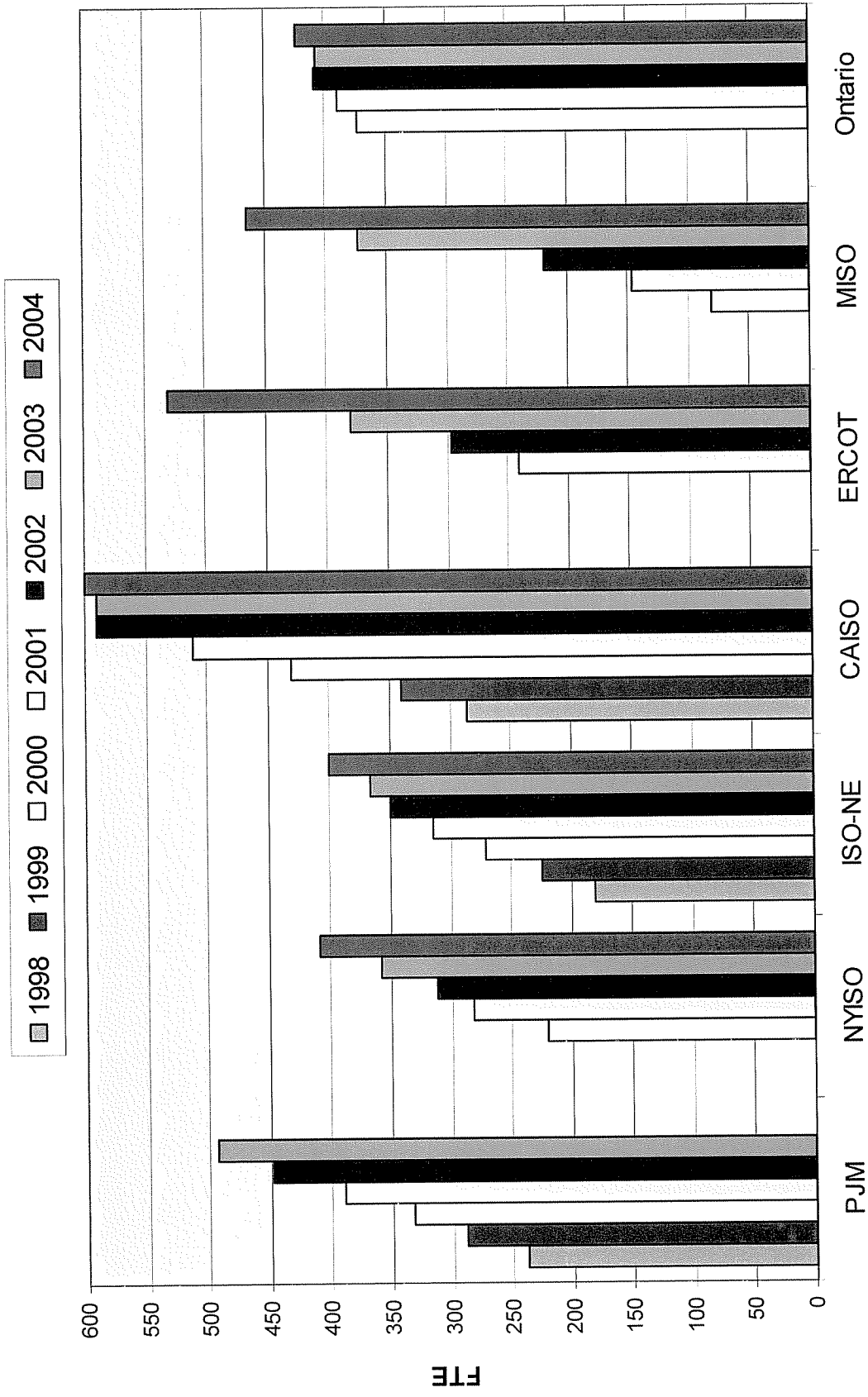
RTO/ISO \$/MWh Annual Operating Costs (2003 Dollars)



RTO/ISO Start-Up Costs

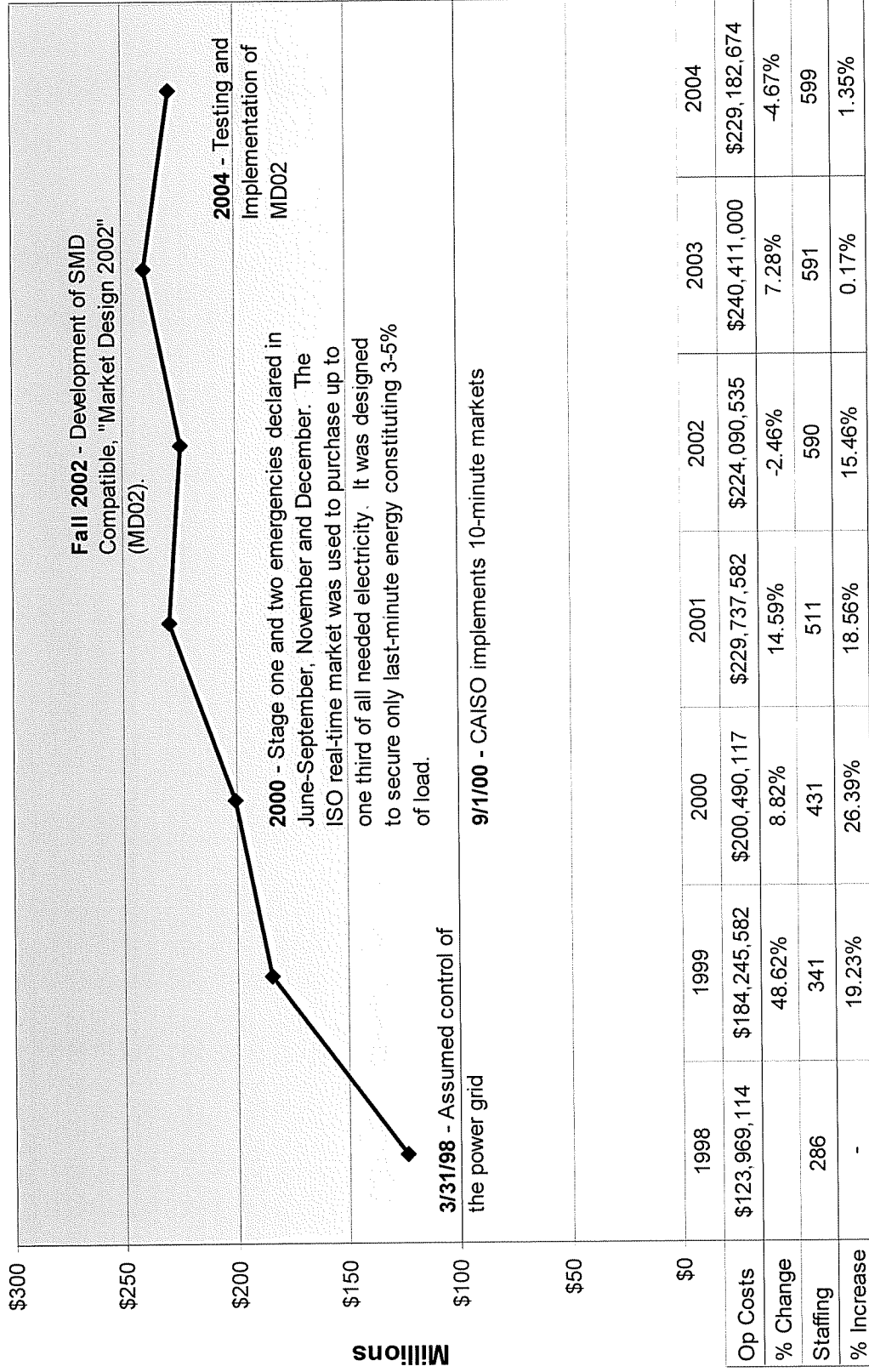


ISO/RTO Staffing Levels

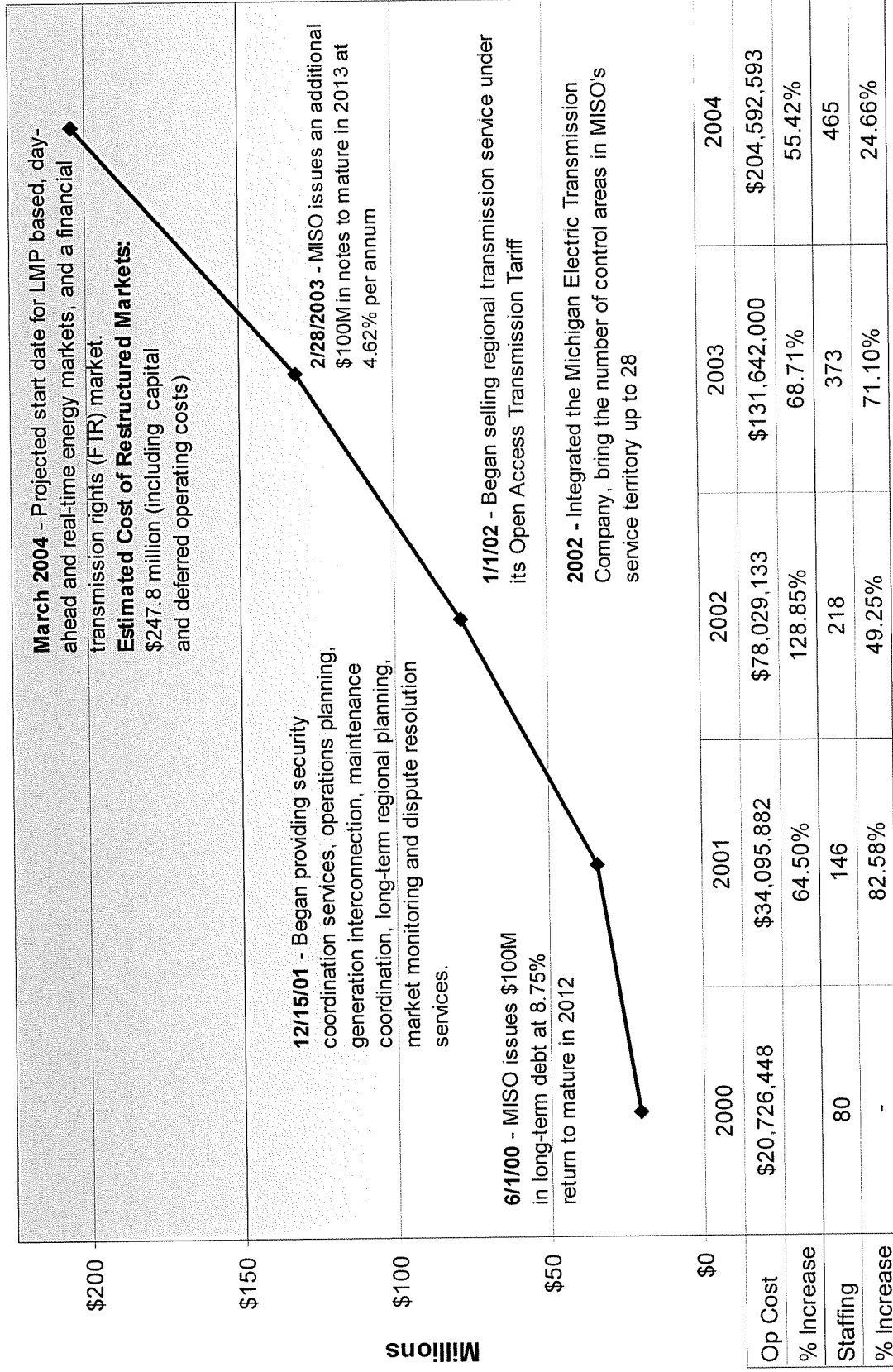


* It is unclear whether contractors are included in some data points. FERC Form 1 data do not include contractors. For consistency, contractors have been excluded whenever possible. (Sources provided on slides 16-18.)

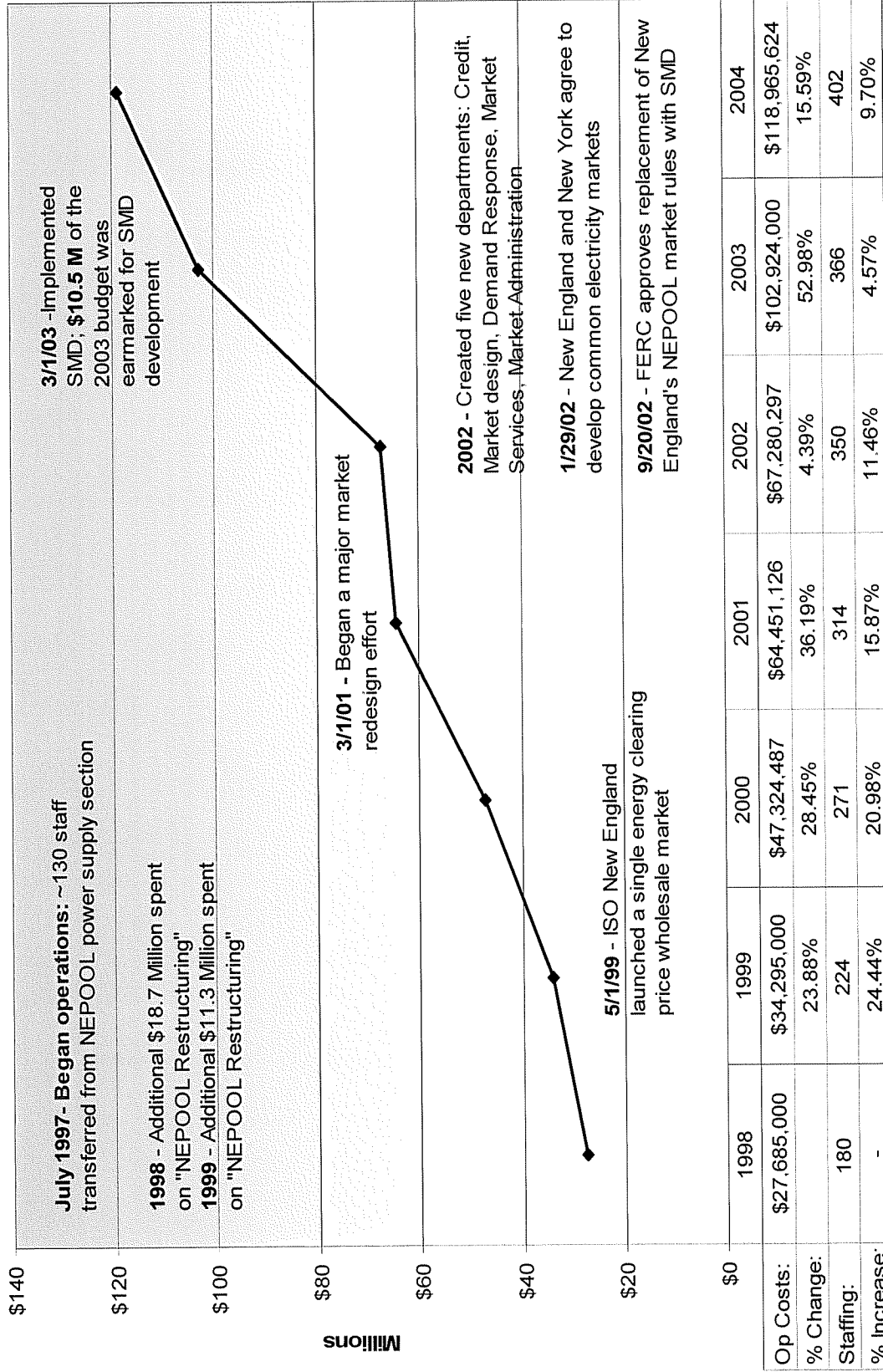
California ISO Annual Operational Costs (2003 dollars)



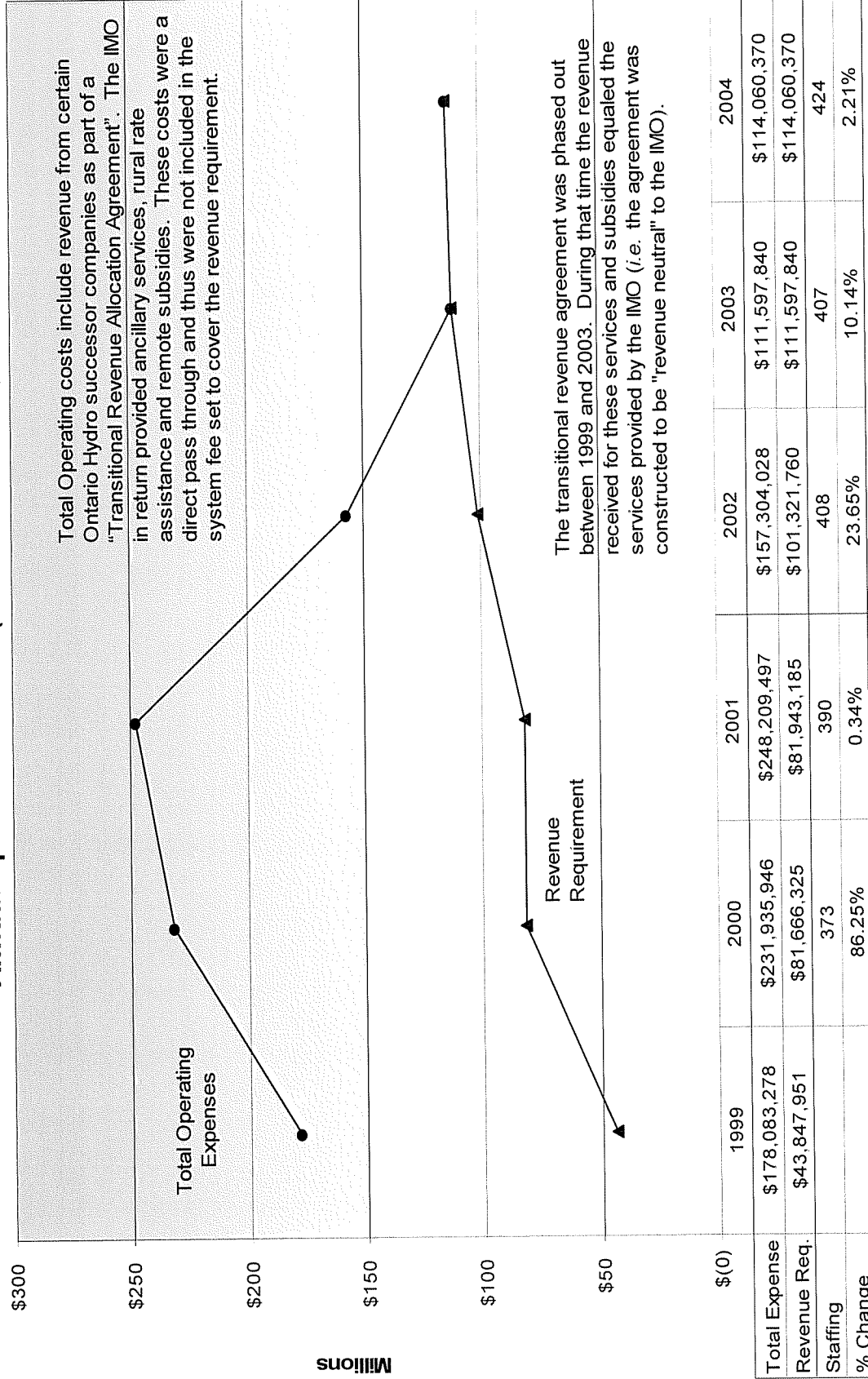
Midwest ISO Annual Operating Costs (2003 Dollars)



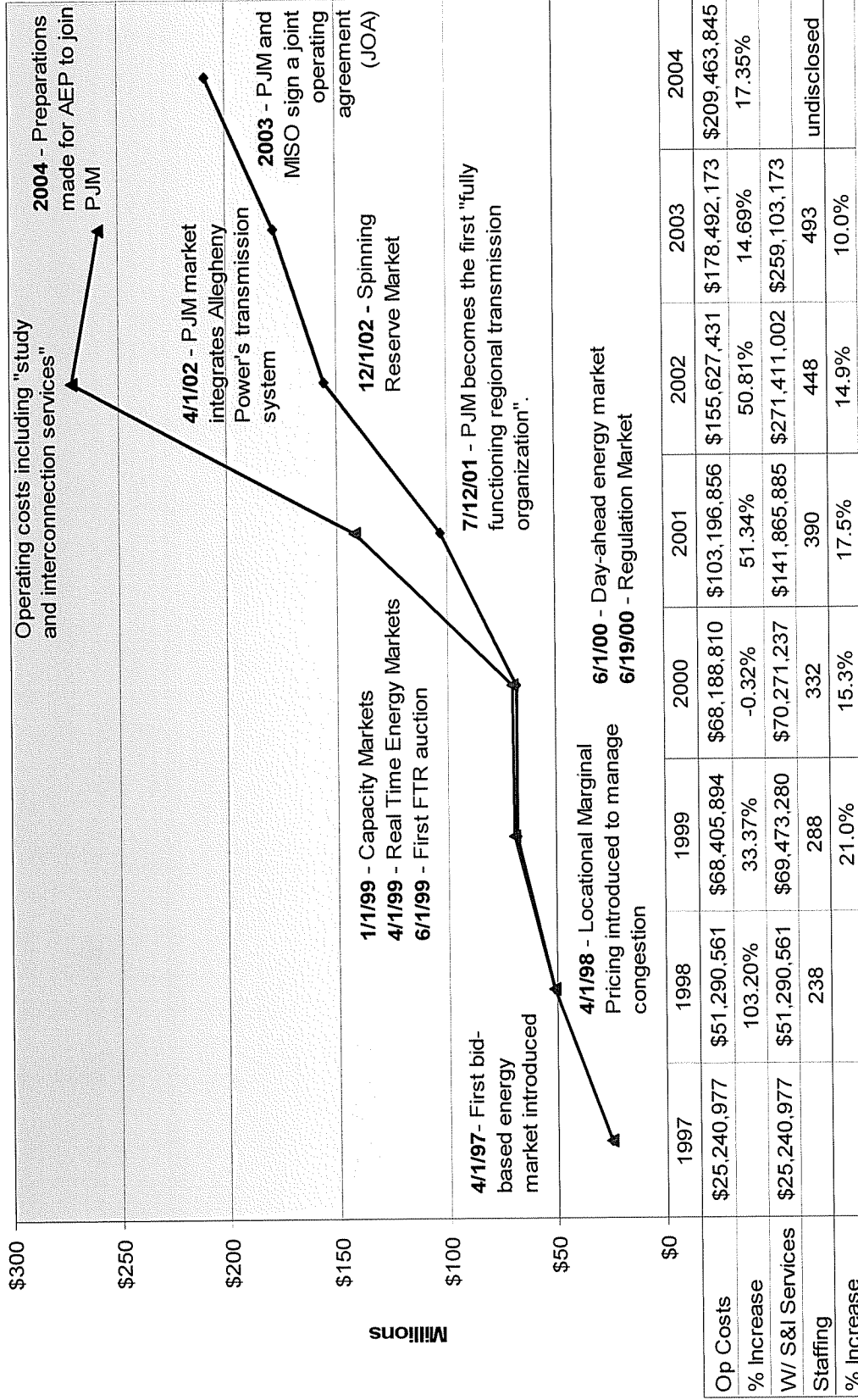
ISO New England Annual Operational Costs (2003 Dollars)



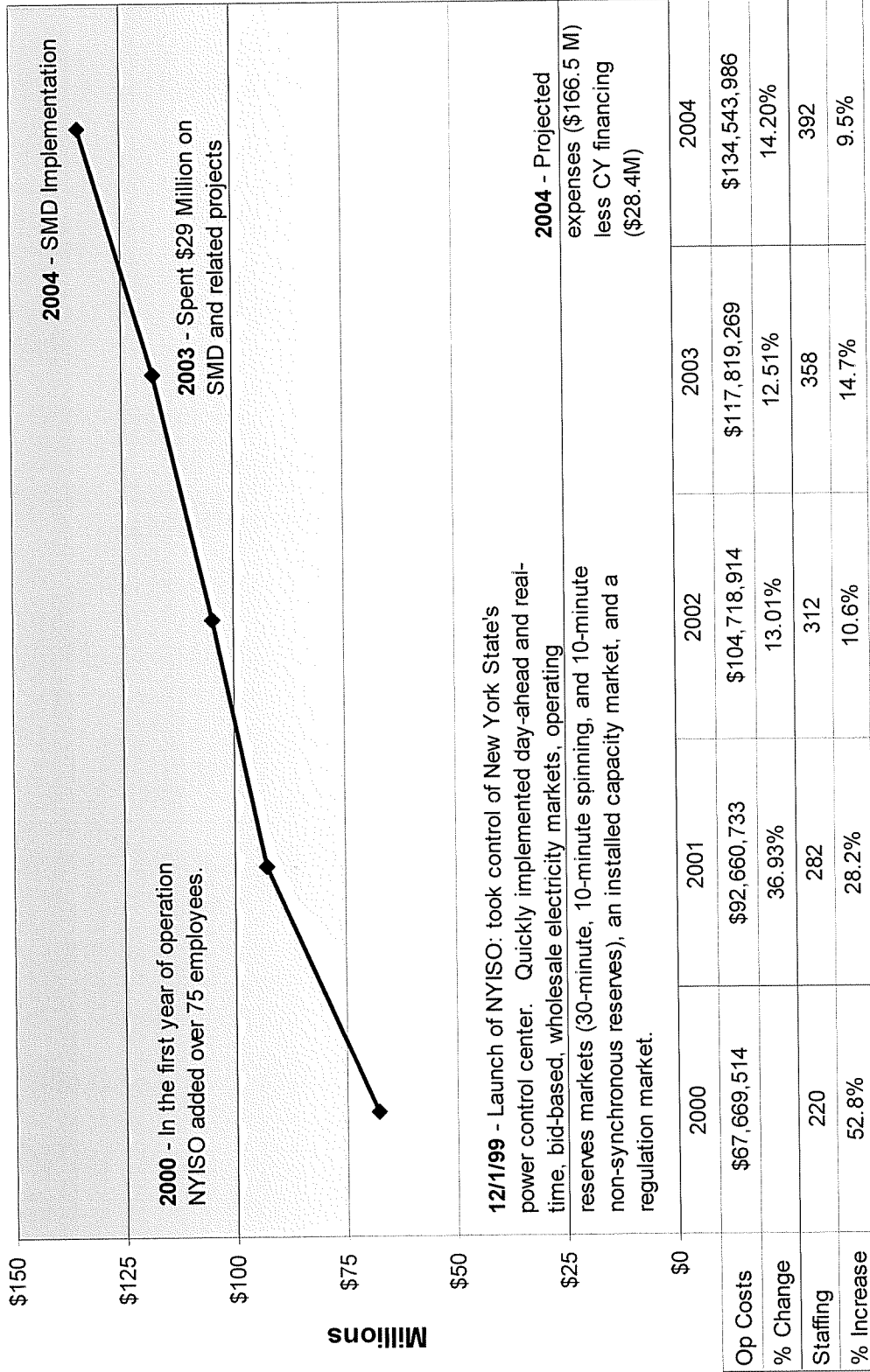
Ontario Independent Market Operator (IMO) Annual Operational Costs (2003 U.S. Dollars)



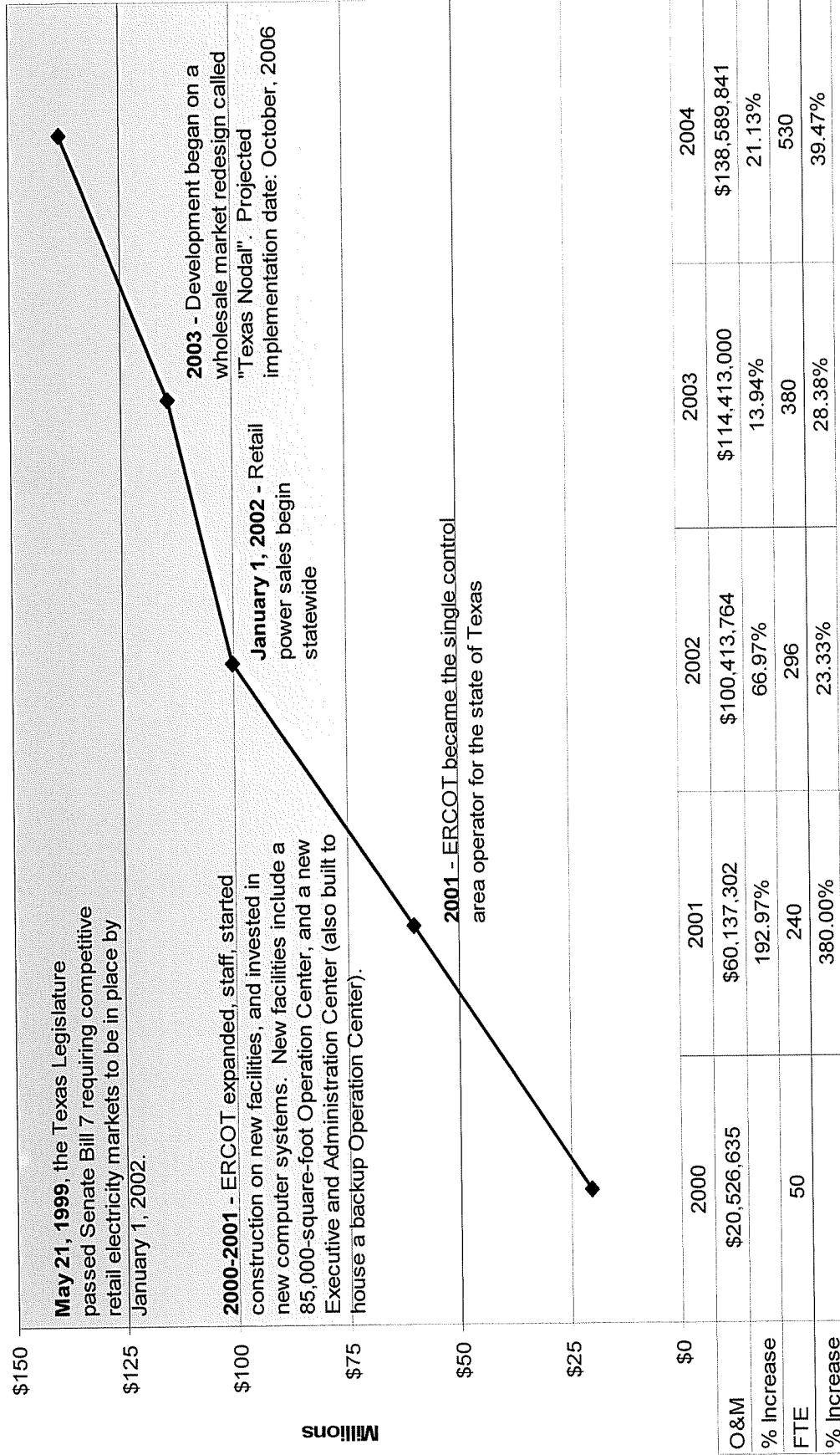
PJM Annual Operating Costs (2003 Dollars)



New York ISO Annual Operating Costs (2003 dollars)



ERCOT Annual Operating Expense



Data Sources:

PJM:

O&M, Amortization, Depreciation, and Interest Expense: 1997-2003 (FERC Form 1 submissions); 2004 (Approved 2004 Budget and Service Category Rates, 10/28/2003).
Annual Energy: 1997-1999 (1999 Annual Report on Operations); 2000 (2000 Annual Report on Operations); 2001 (2001 Annual Report on Operations); 2002-2003 (Corresponding Annual Reports); 2004 (Approved 2004 Budget and Service Category Rates, 10/28/2003).
Staffing Levels: 1998-2001 (FERC Form 1 submissions); 2002 (448 employees as of 9/30/2002 noted in PJM's 2002 3rd Quarter Financial Statement); 2003 (NYISO 2003 Budget Review for the Budget, Performance, and Standards Committee, 9/30/2002).
Start-up Costs: PJM staffers indicated that they have not calculated their overall start-up costs. Estimate provided by the Ontario IMO 2001-2003 Business Plan, 11/13/2000, pg. 41.

New York ISO:

O&M, Amortization, Depreciation, and Interest Expense: 2000-2003 (FERC Form 1 submissions); 2004 (NYISO 2004 Budget Report for the Budget, Standards and Performance Subcommittee, 11/12/2003).
Annual Energy: 2000-2002 (NYISO 2003 Gold Book - Load and Capacity Data); 2003-2004 (Backed into using revenue requirements and \$/MWh rates in NYISO 2004 Budget Report, 11/12/2003).
Staffing Levels: 2000 (Annual Report); 2001 (NYISO Budget vs. Actual Results, February 2002); 2002 (2003 Budget Review, 9/30/2002); 2003-2004 (2004 Budget Overview, 9/26/2003).
Start-up Costs: Tabors Caramanis RTO West Cost Benefit Study, 3/11/2002.

ISO New England:

O&M, Amortization, Depreciation, and Interest Expense: 1998-2002 (Corresponding Annual Reports); 2003 (2003 Final Audited Financial Statement, 3/3/2004); 2004 (ISO-NE March Forecast for End of Year 2004, March 2004).
Annual Energy: 1998-2004 (1999-2004 Annual Capacity, Energy, Loads, and Transmission (CELT) Reports, Note: 2004 is a forecast).

ISO New England Cont.

Staffing Levels: 1998-2001 (FERC Form 1 Submissions); 2002 (*Annual Report*); 2003 (NYISO 2003 *Budget Review*, 9/30/2002); 2004 (*ISO-NE March Forecast for End of Year 2004*, March 2004, Note: Projected FTE).
Start-up Costs: FERC order "Accepting for Filing and Suspending Cost Recovery Proposal, Subject to Refund and Establishing Hearing", Docket No. ER99-4235-000, 10/13/1999.

California ISO:

O&M, Amortization, Depreciation, and Interest Expense: 1998-2002 (FERC Form 1 submissions); 2003 (*December Monthly Financial Report*, 12/31/2003 Note: Actual 2003 numbers - unaudited); 2004 (*Proposed FY2004 Operating & Maintenance Budget and Capital Budget*, 9/18/03).

Annual Energy: 1998 (*2000 Annual Report on Market Issues and Performance*, November 2001); 1999-2001 (*2002 Annual Report on Market Issues and Performance*, April 2003); 2002-2003 (*2003 Market Performance Review* from the Office of Market Analysis, April 2004); 2004 (*Proposed FY2004 Operating & Maintenance Budget and Capital Budget*, 9/18/03).

Staffing Levels: 2000-2001 (FERC Form 1 submissions); 2002 (*Proposed FY 2003 Budget*, 10/16/2002, Note: "revised and approved staffing" level); 2003 (*December Monthly Financial Report*, 12/31/2003); 2004 (*Proposed FY2004 Operating & Maintenance Budget and Capital Budget*, 9/18/2003 Note: projected FTE).

Start-up Costs: *Financing Plan Execution*, 4/23/1998.

ERCOT:

O&M, Amortization, Depreciation, and Interest Expense: 2000-2003 (*2003 Annual Report*); 2004 (2004 Texas PUC rate filing (Docket # 28832)).

Annual Energy: 2000-2004 (2004 Texas PUC rate filing - Docket # 28832, Note: 2001-2002 are actuals, 2003 is part actual and part budgeted and 2004 is budgeted).

Staffing Levels: 2000, 2001, 2003 (*2003 Annual Report*); 2002 (Estimate based on rate filing information); 2004 (2004 Texas PUC rate filing (Docket # 28832)).

Start-up costs: Start-up Costs: *Tabor's Caramanis RTO West Cost Benefit Study*, March 11, 2002.

Midwest ISO:

O&M costs, Amortization, Depreciation, and Interest: 2000-2003 (Corresponding *Annual Reports*); 2004 (*Updated 2004 Budget Presentation*, 3/18/2004, Note: original budget from MISO Budget Advisory Committee Presentation, 12/10/03).
Annual Energy: MISO does not collect or compute annual energy demand at this time. Estimates of MISO annual demand calculated using FERC Form 1 submissions of MISO membership.
Staffing Levels: 2000 (*MISO Order 2000 Compliance Filing (RT01-87-000)*); 1/16/2001); 2001, 2002, 2004 (*2004 Budget Advisory Committee Presentation*, 12/10/2003.); 2003 (*2003 Annual Report*).
Start-up Costs: MISO 2000 *Annual Report*.

Ontario IMO:

O&M, Amortization, Depreciation, and Interest Expense: 1999-2002 (Corresponding *Annual Reports*); 2003 (*2003 Final Audited Financial Statement*, 1/12/04); 2004 (*IMO Business Plan 2004-2006 Financial Overview*, 9/30/2003).
Annual Energy: Demand Overview section of Ontario IMO's webpage: http://www.theimo.com/imoweb/media/md_demand.asp
Staffing Levels: 2000, 2002 (*IMO Business Plan 2001-2003*, 11/13/2000); 2002 (*Annual Report*); 2003-2004 (*IMO Business Plan 2004-2006 Financial Overview*, 9/30/2003 Note: 2003 is projected, 2004 is budgeted).
Start-up Costs: *Ontario IMO 2001-2003 Business Plan*, 11/13/2000.

LOUISVILLE GAS AND ELECTRIC COMPANY
AND
KENTUCKY UTILITIES COMPANY

CASE NO. 2003-00266

Response to the Midwest Independent Transmission System Operator Inc.
Supplemental Data Request Dated January 20, 2005

Question No. 6

Responding Witnesses: Michael S. Beer / Counsel

- Q-6. Does LG&E/KU contend that the generating units operated by WKE cannot or should not be jointly dispatched and, if necessary, dynamically scheduled with LG&E/KU units? If so, provide the basis for that contention.
- A-6. Questions related to units operated by WKE are irrelevant to the issues before the Commission in Case No. 2003-00266, which is an investigation of LG&E's and KU's MISO membership. Without waiving this objection, LG&E and KU provide the following response:

The Coleman, Green, Henderson II, Reid and Wilson generating stations ("WKE units") are not owned, controlled or dispatched by LG&E/KU. These units are leased from Big Rivers Electric Cooperative ("BREC") by WKE. WKE is an Exempt Wholesale Generator, owns no transmission and has no obligation to be a part of an RTO dispatch (although such units are subject, of course, to applicable reliability rules and standards). The WKE units operate within the BREC's control area primarily to serve the native load of Big Rivers (an obligation assumed by WKE under the contractual arrangements between WKE and BREC) and, to date, BREC is not a member of MISO. There are no contractual arrangements for power sales or purchases between WKE and the Companies, nor are there any such contracts between WKE and the parent of the Companies to which the Companies are the beneficiary.

It is not legally permissible to jointly dispatch WKE units with LG&E/KU units pursuant to FERC's order granting LG&E/KU market-based rate authority.

LG&E/KU make market-based sales of energy and capacity under their FERC approved joint market-based sales service rate schedule ("Joint Rate MBSS") and subject to their Joint Code of Conduct. Section 1.3 of the Joint Rate MBSS states

that “No entity affiliated with the Companies shall be eligible for service under this rate schedule, except that the Companies’ affiliates LG&E Energy Marketing Inc. and Western Kentucky Energy Company shall be eligible for service under this Rate Schedule subject to the Joint Code of Conduct (Supplement No.1 hereto) that is intended to guide the relationship between the Companies and those affiliates.”

Further, section 3 of The Joint Code of Conduct states that “To the maximum extent possible, employees of the utilities who operate the Utilities systems or engage in power purchasing or selling on behalf of the Utilities will be physically, operationally, and functionally separate from employees of the Marketers performing power marketing activities.”

Therefore, the utilities are prohibited from purchasing energy from affiliates.

**LOUISVILLE GAS AND ELECTRIC COMPANY
AND
KENTUCKY UTILITIES COMPANY**

CASE NO. 2003-00266

**Response to the Midwest Independent Transmission System Operator Inc.
Supplemental Data Request Dated January 20, 2005**

Question No. 7

Responding Witness: Michael S. Beer / Martyn Gallus / Counsel

- Q-7. Describe the relationship between WKE and LG&E or KU with respect to the control and dispatch of the western Kentucky units operated by WKE.
- A-7. The information sought in this request for information is irrelevant to the issues before the Commission in this investigation and requires speculation. Without waiving this objection, please see the response to Question No. 6 of MISO's Supplemental Data Request dated January 20, 2005.

**LOUISVILLE GAS AND ELECTRIC COMPANY
AND
KENTUCKY UTILITIES COMPANY**

CASE NO. 2003-00266

**Response to the Midwest Independent Transmission System Operator Inc.
Supplemental Data Request Dated January 20, 2005**

Question No. 8

Responding Witness: Mathew J. Morey

- Q-8. Dr. Morey attributes the difference in exit fee costs for the Midwest ISO and LG&E/KU analyses to "differences in assumptions about the billing determinants that are the basis for calculating the Companies' share of the unamortized capital costs under Schedules 10, 16 and 17." (MJM Supp. Rebuttal at 15 *ll.* 3-5). State each difference in assumptions, and for each difference stated provide the basis for the assumption(s) used in the LG&E/KU analysis.
- A-8. The billing determinant used for estimating the exit fee was the ratio of the total peak energy for the combined companies in 2005 to the peak energy for MISO for 2005. This ratio was applied to the estimated total unamortized capital costs for Schedules 10, 16 and 17. The calculation was contained in the workpaper entitled "MISO Exit Fee.pdf." This workpaper was supplied in response to Question No. 1 of MISO's Data Request dated October 6, 2004, filed October 20, 2004.