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March 1, 2004

**HAND DELIVERED**

Thomas M. Dorman  
Executive Director  
Public Service Commission of Kentucky  
211 Sower Boulevard  
P.O. Box 615  
Frankfort, Kentucky 40602-0615

Mark R. Overstreet  
(502) 209-1219  
(502) 223-4387 FAX  
moverstreet@stites.com

**RECEIVED**

MAR 01 2004

**PUBLIC SERVICE  
COMMISSION**

RE: Administrative Case No. 387

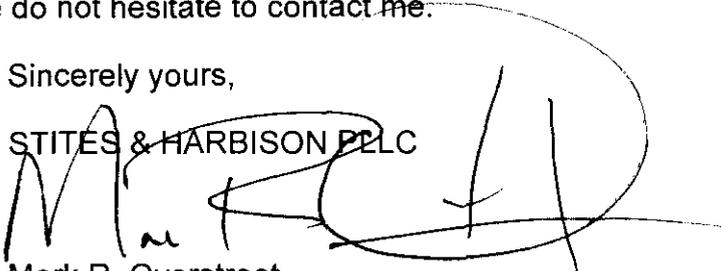
Dear Mr. Dorman:

Please find enclosed and accept for filing Kentucky Power Company d/b/a American Electric Company's Responses to the Commission's December 20, 2001 Order.

If you have any questions, please do not hesitate to contact me.

Sincerely yours,

STITES & HARBISON PLLC

  
Mark R. Overstreet

KE057:KE148:10623:1:FRANKFORT

**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

**RECEIVED**

MAR 0 1 2004

**PUBLIC SERVICE  
COMMISSION**

**IN THE MATTER OF :**

**A REVIEW OF THE ADEQUACY OF )  
KENTUCKY'S GENERATION )  
CAPACITY AND TRANSMISSION )  
SYSTEM )**

**ADMINISTRATIVE  
CASE NO. 387**

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**RESPONSE OF KENTUCKY POWER COMPANY  
D/B/A  
AMERICAN ELECTRIC POWER  
  
TO  
  
COMMISSION ORDER DATED DECEMBER 20, 2001**

**March 1, 2004**

**Kentucky Power**  
**d/b/a**  
**American Electric Power**

**REQUEST**

Actual and weather-normalized energy sales for the just completed calendar year. Sales should be disaggregated into native load sales and off-system sales. Off-system sales should be further disaggregated into full requirements sales, firm capacity sales, and non-firm or economy energy sales. Off-system sales should be further disaggregated to identify separately all sales where the utility acts as a reseller, or transporter, in a power transaction between two or more other parties.

**RESPONSE**

Page 2 of this response provides the 2003 monthly energy sales and normalized energy sales for Kentucky Power Company.

Energy sales to full requirements sales-for-resale (municipals) customers are provided on page 2 of this response. Page 3 of this response provides off-system (non-firm energy and firm capacity) sales for Kentucky Power Company. The off-system sales have not been normalized; therefore, the requested information is not available.

Kentucky Power Company did not act as a reseller on any transactions during 2003.

**WITNESS:** Errol K Wagner

**Kentucky Power Company  
 Actual and Normalized Internal Energy Sales (MWh)  
 2003**

<b>Actual</b>					
<u>Month</u>	<u>Residential</u>	<u>Commercial</u>	<u>Industrial</u>	<u>Other Retail</u>	<u>Sales-for-Resale</u>
January	352,133	131,070	270,068	1,836	10,310
February	286,404	115,622	230,845	699	7,294
March	199,684	98,434	258,452	-98	7,424
April	125,078	100,401	246,757	899	6,073
May	125,951	109,682	238,713	825	5,974
June	137,963	110,040	240,595	758	6,502
July	204,701	117,185	221,737	733	8,043
August	187,228	113,095	246,455	819	8,163
September	148,684	104,155	220,259	868	6,512
October	106,387	88,151	259,177	1,009	6,515
November	172,523	98,632	256,877	1,066	7,085
December	309,779	125,474	240,274	1,145	9,247

<b>Normalized</b>					
<u>Month</u>	<u>Residential</u>	<u>Commercial</u>	<u>Industrial</u>	<u>Other Retail</u>	<u>Sales-for-Resale</u>
January	326,654	126,021	270,068	1,836	9,828
February	267,065	111,796	230,845	699	6,928
March	217,031	101,956	258,452	-98	7,758
April	137,963	102,966	246,757	899	6,318
May	136,125	112,540	238,713	825	6,219
June	147,439	113,315	240,595	758	6,770
July	212,479	119,882	221,737	733	8,263
August	187,300	113,121	246,455	819	8,165
September	154,848	106,492	220,259	868	6,693
October	107,906	88,631	259,177	1,009	6,554
November	187,223	101,684	256,877	1,066	7,364
December	311,514	125,845	240,274	1,145	9,281

**Kentucky Power Company  
2003 Off-System Energy Sales  
and Capacity Sales**

<u>Period</u>	<u>Energy Sales</u> (MWH)	<u>Capacity Sales</u> (MWH)
Jan-03	222,970	9,032
Feb-03	249,993	8,558
Mar-03	313,164	7,789
Apr-03	315,987	7,662
May-03	267,250	9,430
Jun-03	287,452	11,326
Jul-03	299,361	12,137
Aug-03	271,690	11,622
Sep-03	303,180	10,781
Oct-03	267,787	8,995
Nov-03	232,829	8,654
Dec-03	255,576	9,044
<b>2003 Total</b>	<b>3,287,239</b>	<b>115,030</b>

**Kentucky Power**  
**d/b/a**  
**American Electric Power**

**REQUEST**

A summary of monthly power purchases for the just completed calendar year. Purchases should be disaggregated into firm capacity purchases required to serve native load economy energy purchases, and purchases where the utility acts as a reseller, or transporter, in a power transaction between two or more other parties.

**RESPONSE**

Page 2 of this response provides energy and firm capacity purchases by Kentucky Power Company.

Kentucky Power Company did not act as a reseller on any transactions during 2003.

**WITNESS:** Errol K Wagner

**Kentucky Power Company  
2003 Energy and Capacity Purchases**

<u>Period</u>	<u>Energy Purchases (MWh)</u>	<u>Firm Capacity Purchases (MWh)</u>
Jan-03	92,158	267,011
Feb-03	71,229	251,876
Mar-03	112,698	236,969
Apr-03	71,221	231,577
May-03	53,431	243,337
Jun-03	61,738	230,464
Jul-03	56,367	237,692
Aug-03	85,322	248,875
Sep-03	55,460	197,440
Oct-03	48,036	117,671
Nov-03	51,529	186,609
Dec-03	66,375	247,312
<b>2003 Total</b>	<b>825,564</b>	<b>2,696,833</b>

Note: The cumulative totals above do not include Primary Economy Energy MWh.

**Kentucky Power  
d/b/a  
American Electric Power**

**REQUEST**

Actual and weather-normalized monthly coincident peak demands for the just completed calendar year. Demands should be disaggregated into (a) native load demand (firm and non-firm) and (b) off-system demand (firm and non-firm).

**RESPONSE**

Page 2 of this response provides 2003 monthly peak internal and system demands for Kentucky Power Company. The system demands include internal load and off-system sales. Kentucky Power Company's internal load had contractual interruptible capacity of 0 MW.

Weather-normalized monthly peak internal and system demands for Kentucky Power Company have not been developed and therefore, are not available. However, weather-normalized seasonal peak internal demands have been developed. The weather-normalized winter 2002/03-peak internal demand is 1,548 MW and the weather-normalized summer 2003 peak internal demand is 1,241 MW.

**WITNESS:** Errol K Wagner

Kentucky Power Company  
 Monthly Peak Internal and System Demand (MW)  
 2003

Month	Peak Internal Demand			Peak System Demand		
	Peak	Peak Day	Peak Hour*	Peak	Peak Day	Peak Hour*
January	1,564	1/27/03	9	1,916	1/24/03	9
February	1,419	2/13/03	8	1,813	2/8/03	9
March	1,290	3/4/03	8	1,819	3/4/03	8
April	986	4/7/03	13	1,590	4/9/03	20
May	953	5/19/03	16	1,507	5/19/03	16
June	1,081	6/25/03	16	1,583	6/23/03	18
July	1,151	7/8/03	14	1,639	7/3/03	16
August	1,212	8/26/03	17	1,652	8/21/03	15
September	1,030	9/4/03	15	1,594	9/11/03	17
October	1,038	10/3/03	8	1,466	10/16/03	8
November	1,210	11/25/03	8	1,509	11/29/03	12
December	1,267	12/2/03	8	1,695	12/2/03	8

Note: \*Peak hour is in Eastern Standard Time.

**Kentucky Power**  
**d/b/a**  
**American Electric Power**

**REQUEST**

Load shape curves that show actual peak demands and weather-normalized peak demands (native load demand and total demand) on a monthly basis for the just completed calendar year.

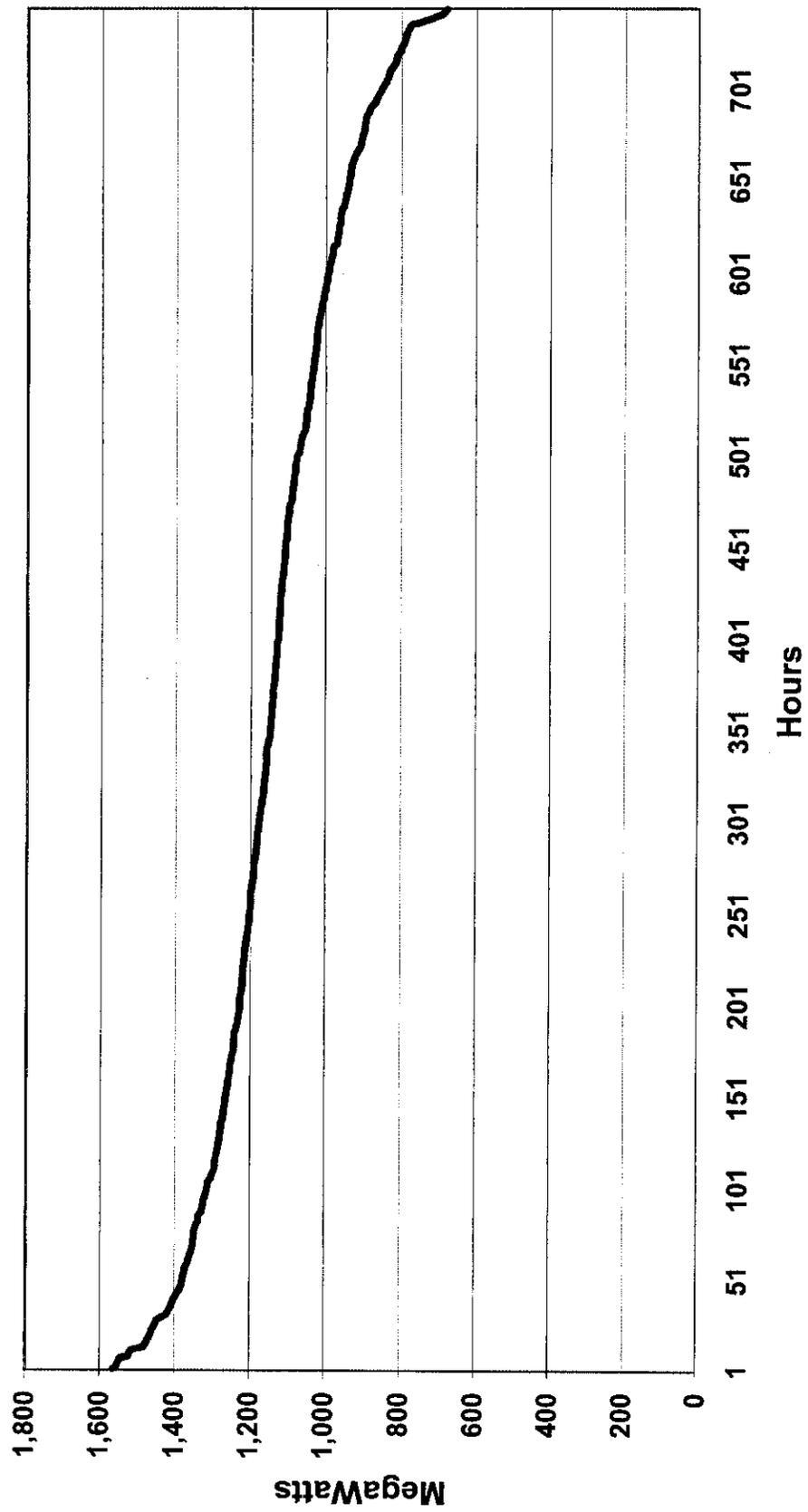
**RESPONSE**

Pages 2 through 13 provide 2003 monthly load duration curves for Kentucky Power Company's internal load. Pages 14 through 25 provide 2003 monthly load duration curves for Kentucky Power Company's system load. The system load includes internal load and off-system sales.

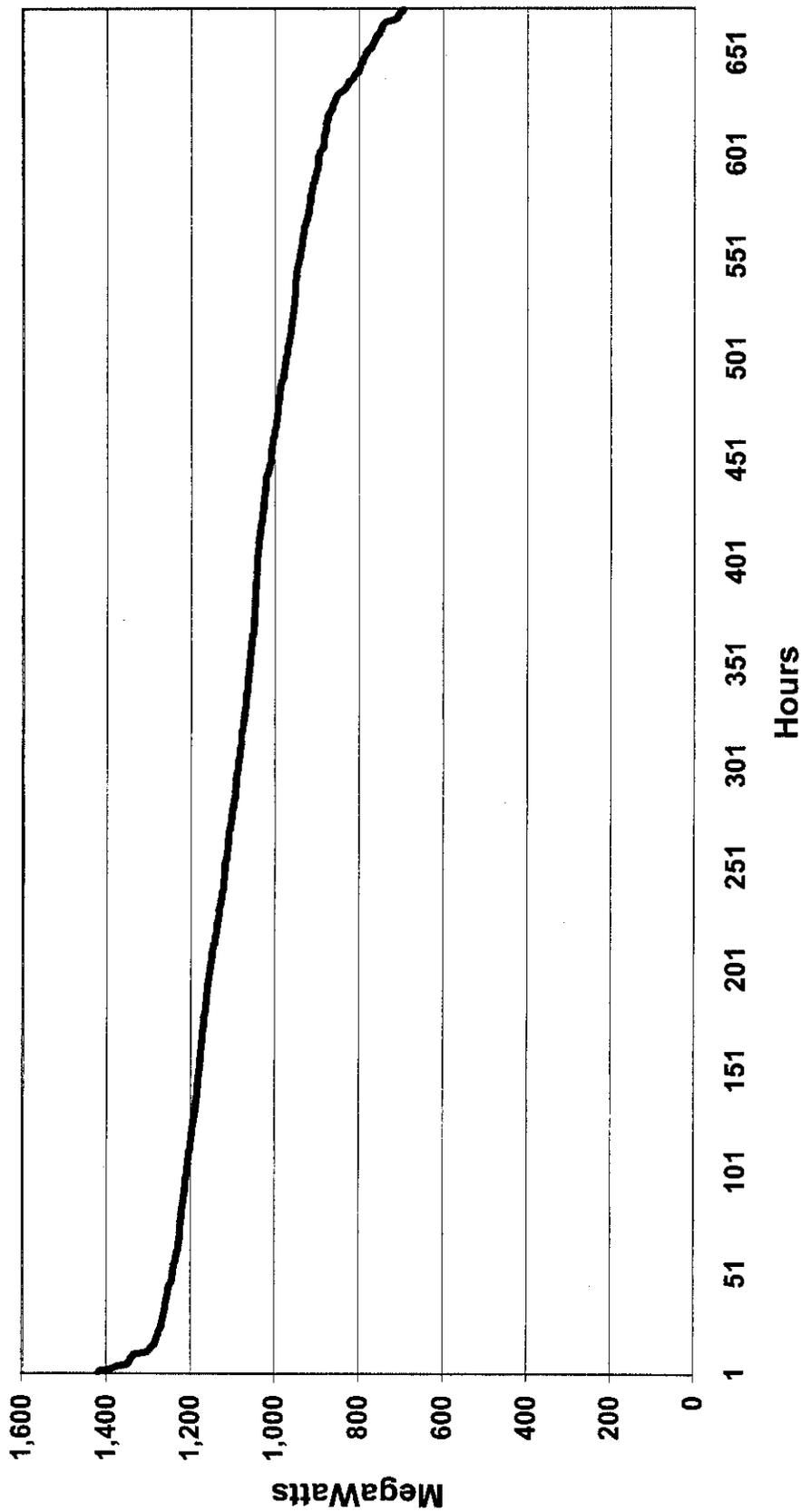
Weather-normalized monthly internal and system peaks have not been developed and therefore, are not available.

**WITNESS:** Errol K Wagner

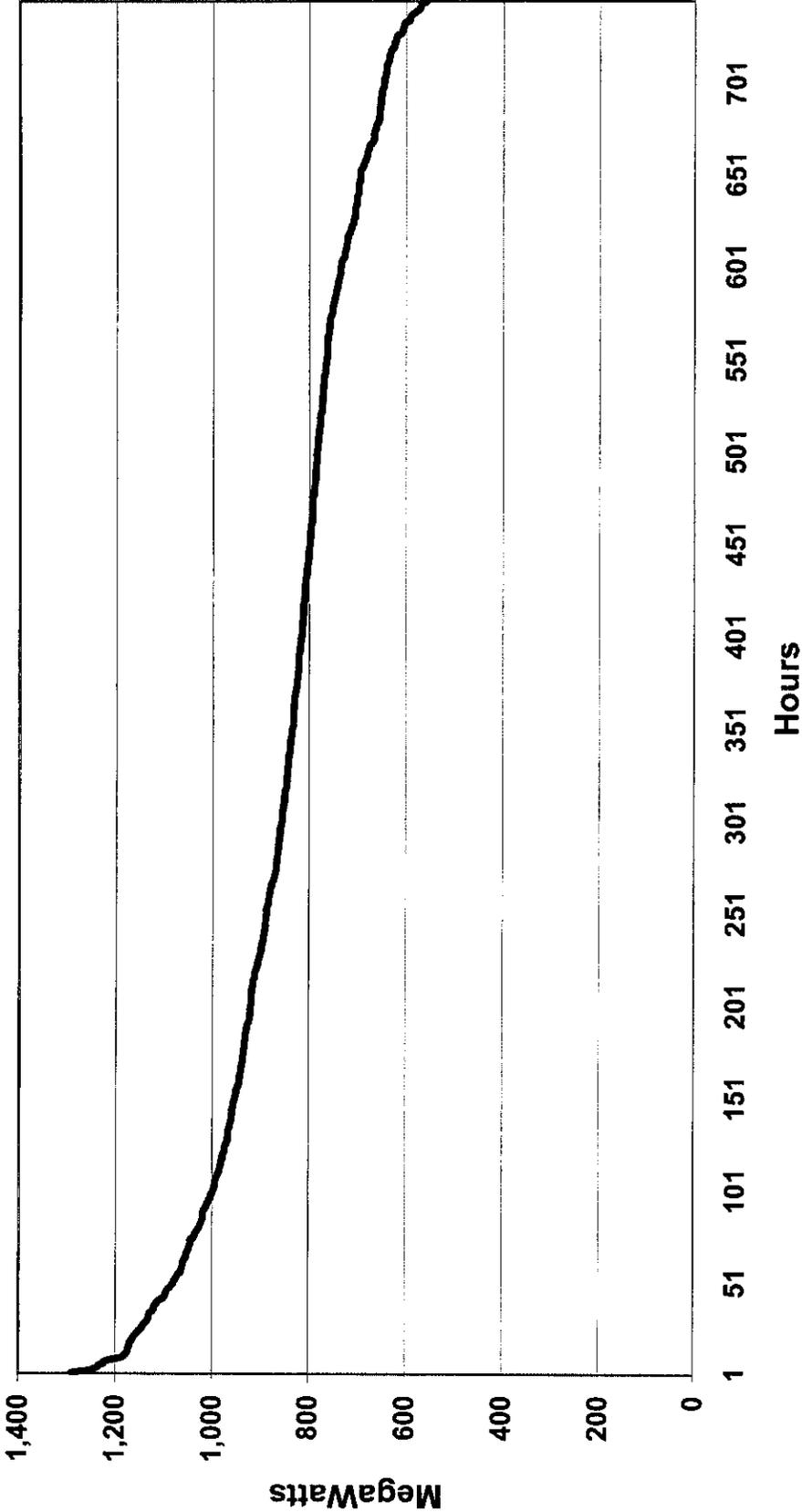
### Kentucky Power Company January 2003 Load Duration Curve (Internal Load)



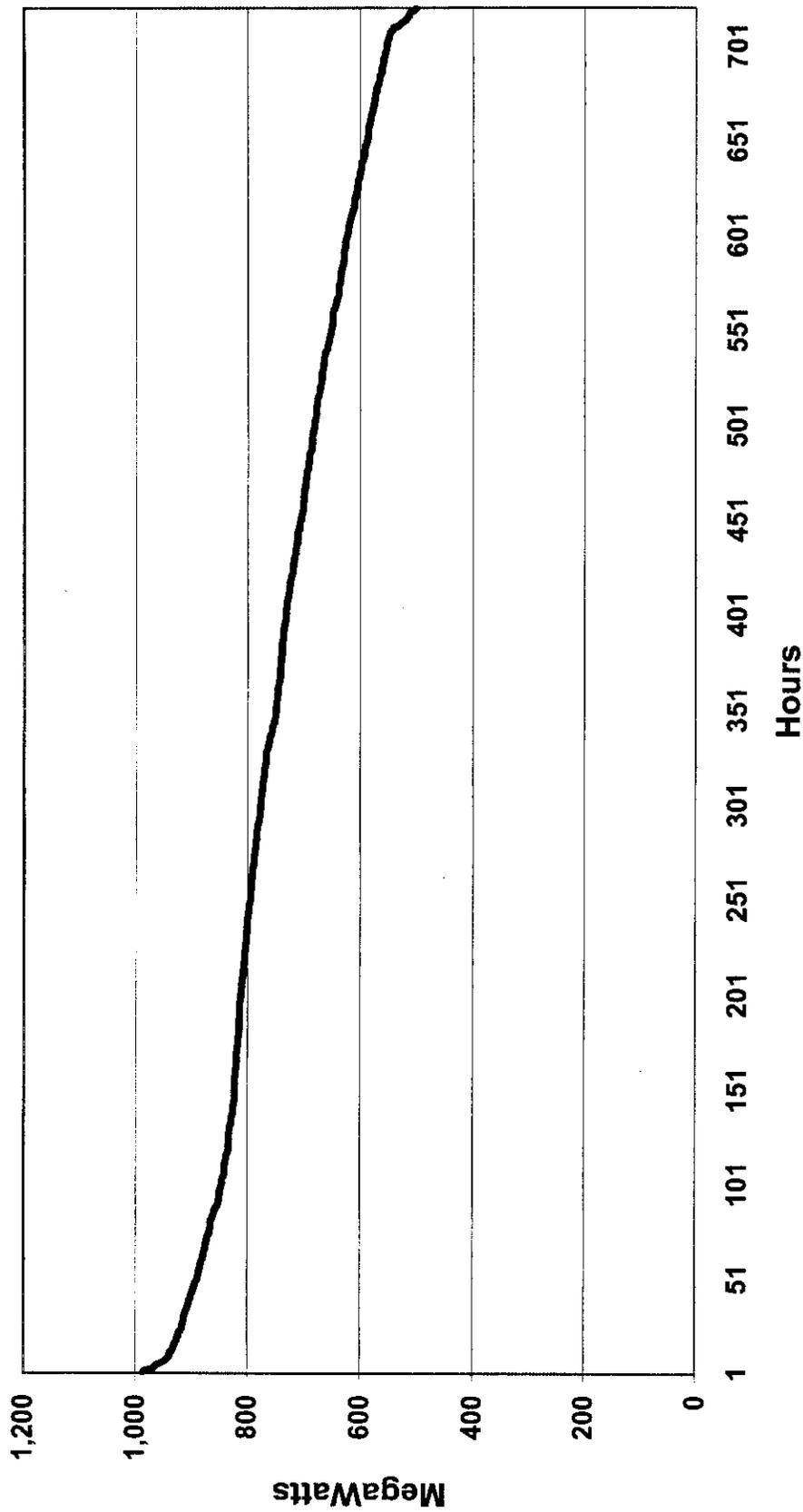
### Kentucky Power Company February 2003 Load Duration Curve (Internal Load)



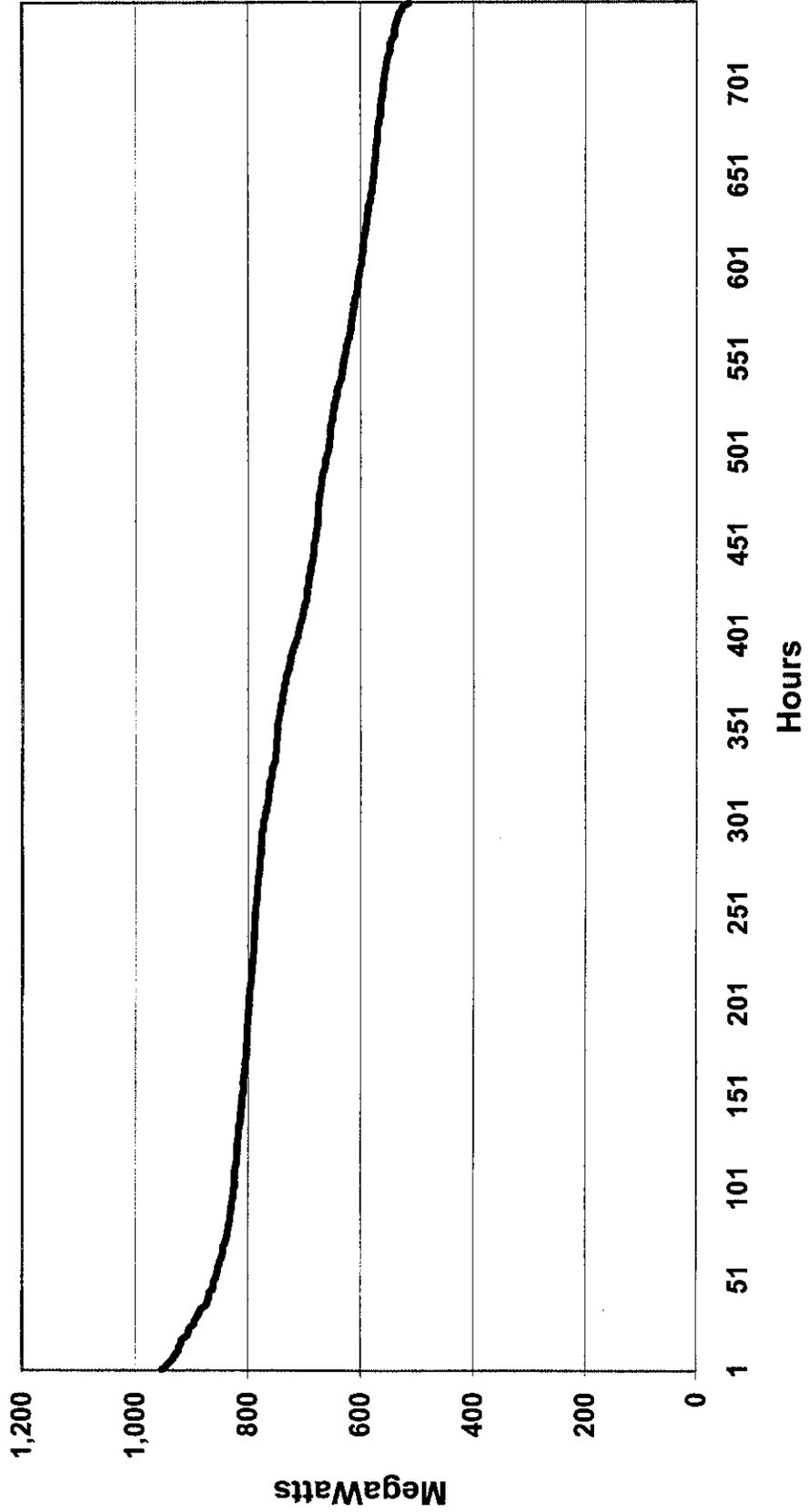
**Kentucky Power Company  
March 2003 Load Duration Curve  
(Internal Load)**



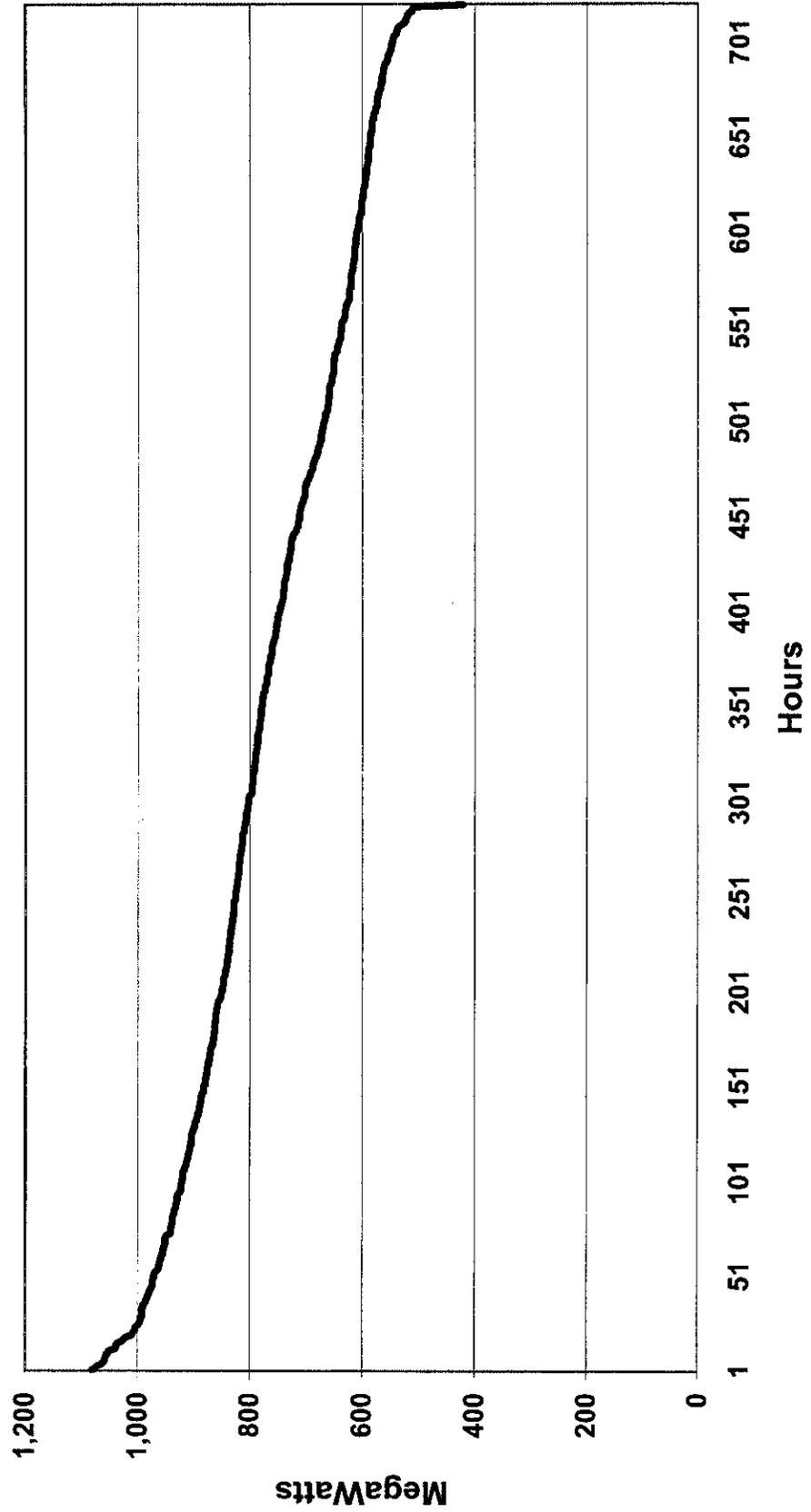
### Kentucky Power Company April 2003 Load Duration Curve (Internal Load)



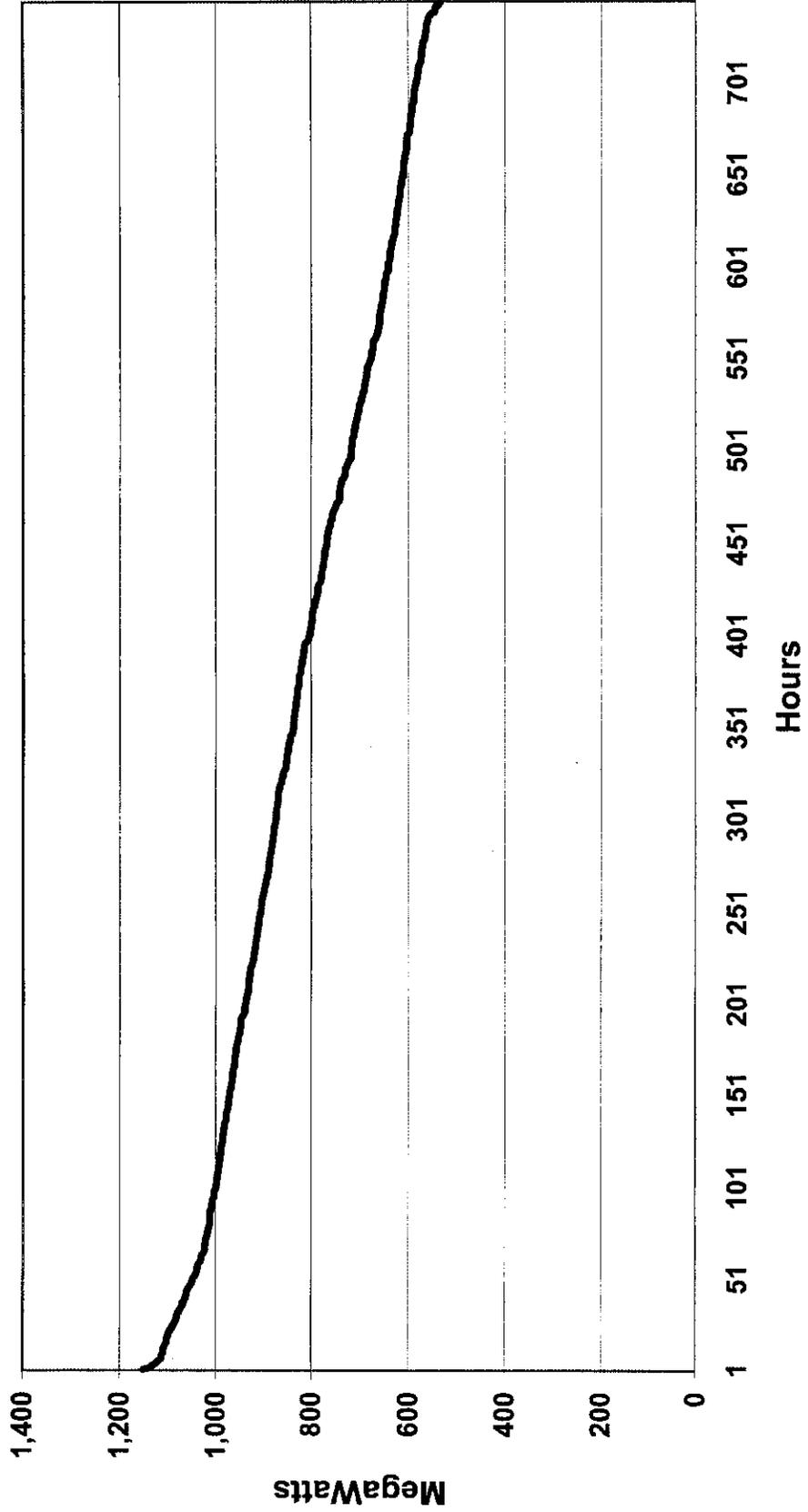
### Kentucky Power Company May 2003 Load Duration Curve (Internal Load)



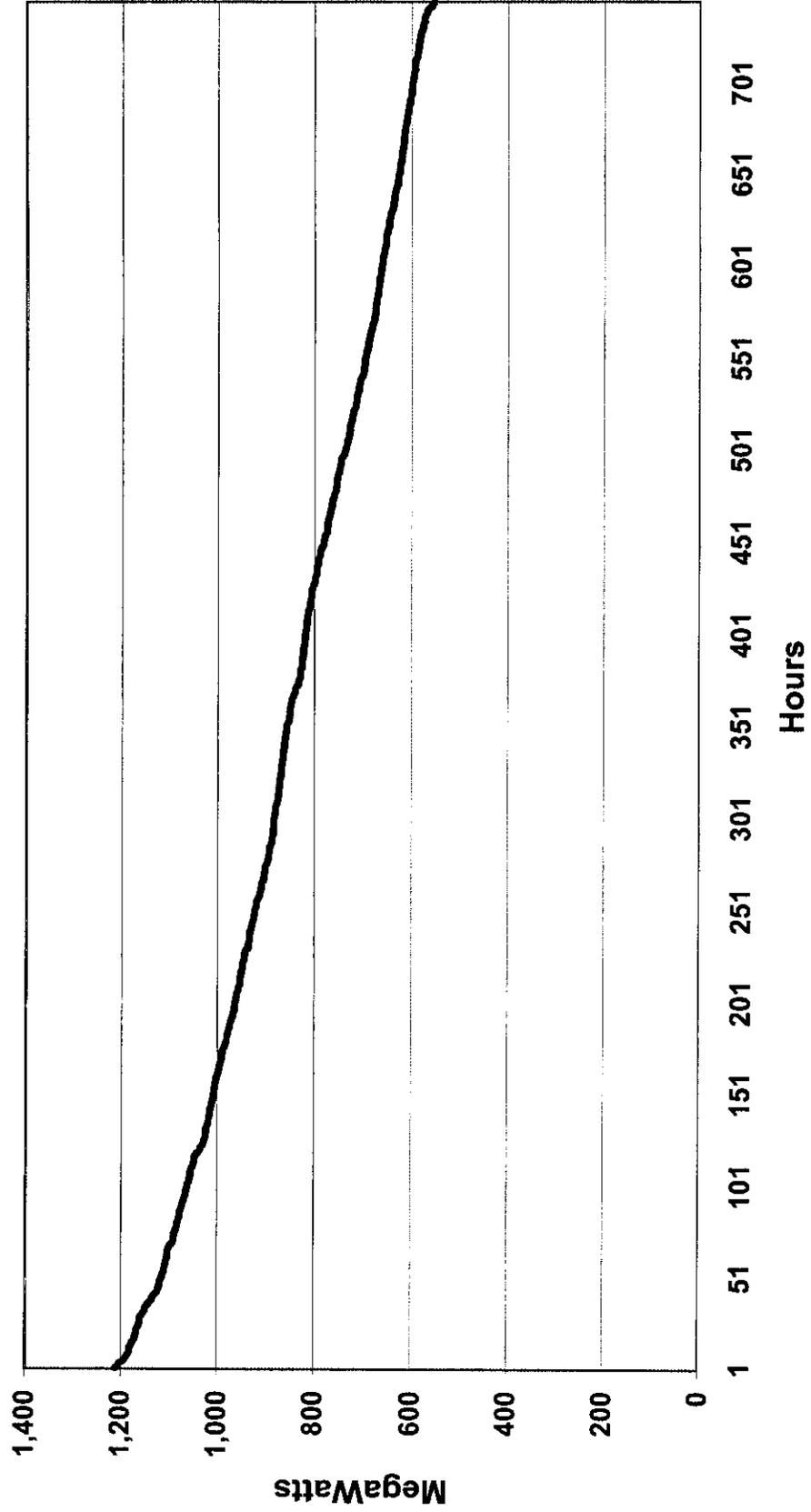
### Kentucky Power Company June 2003 Load Duration Curve (Internal Load)



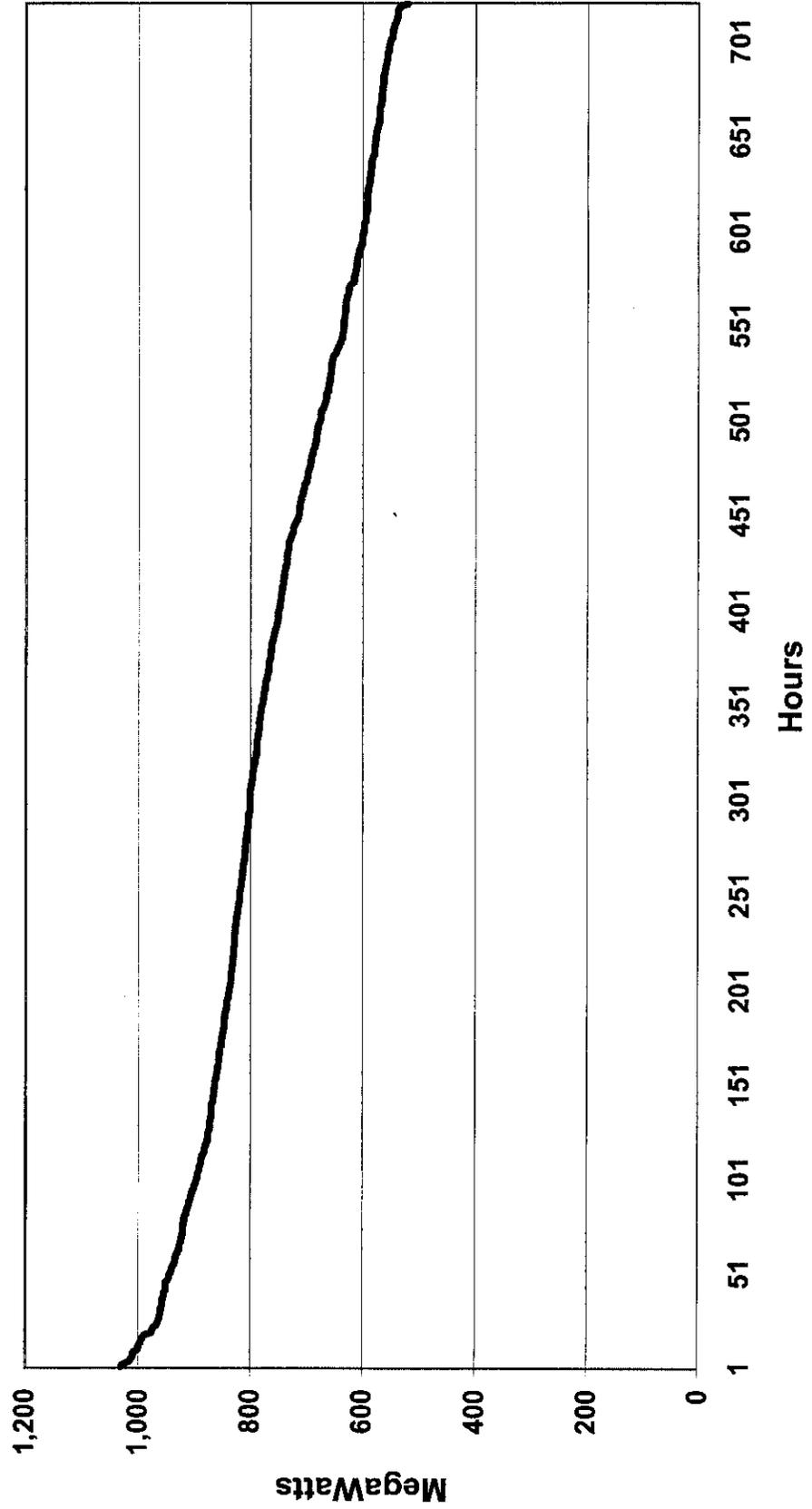
### Kentucky Power Company July 2003 Load Duration Curve (Internal Load)



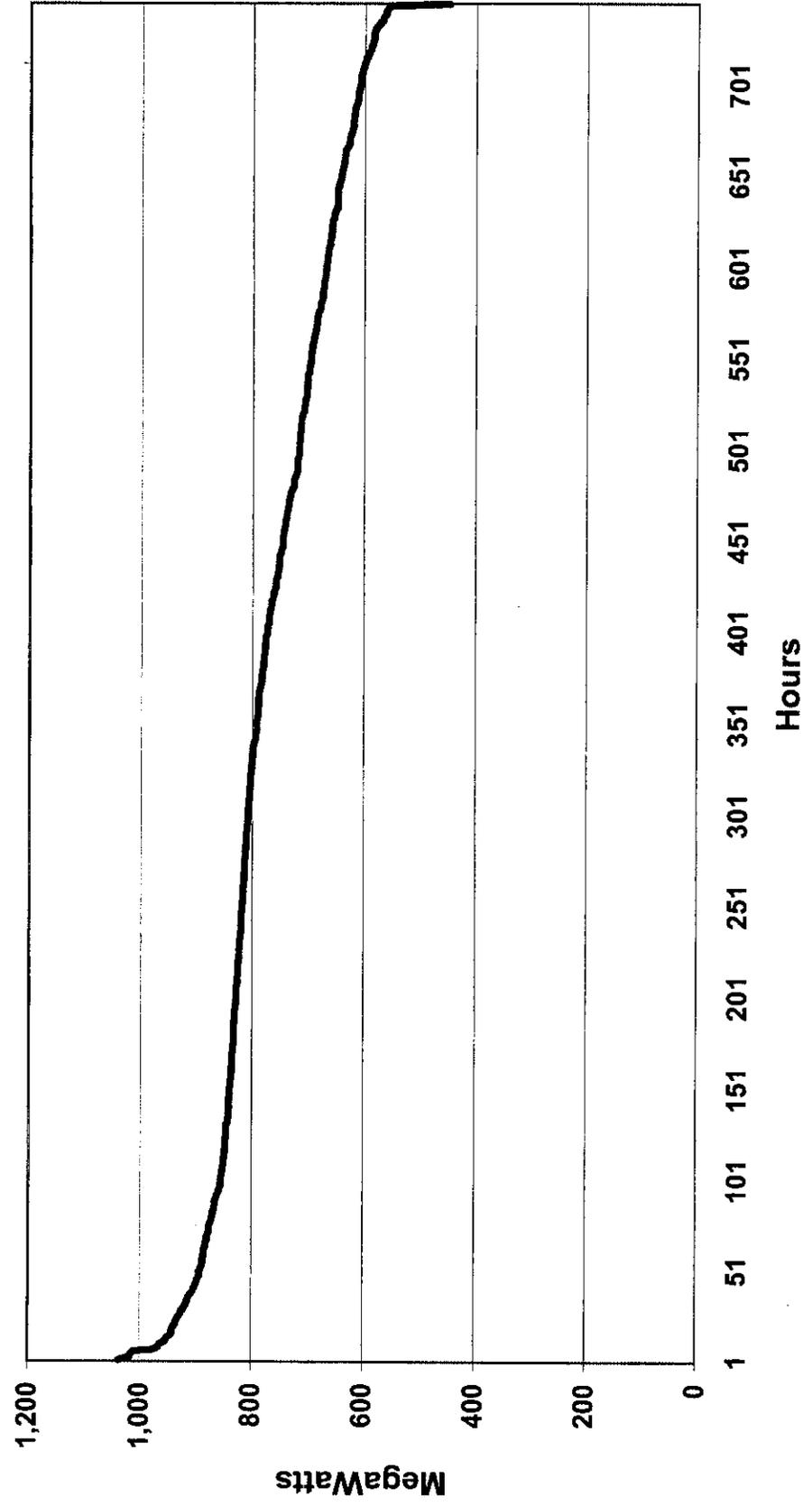
### Kentucky Power Company August 2003 Load Duration Curve (Internal Load)



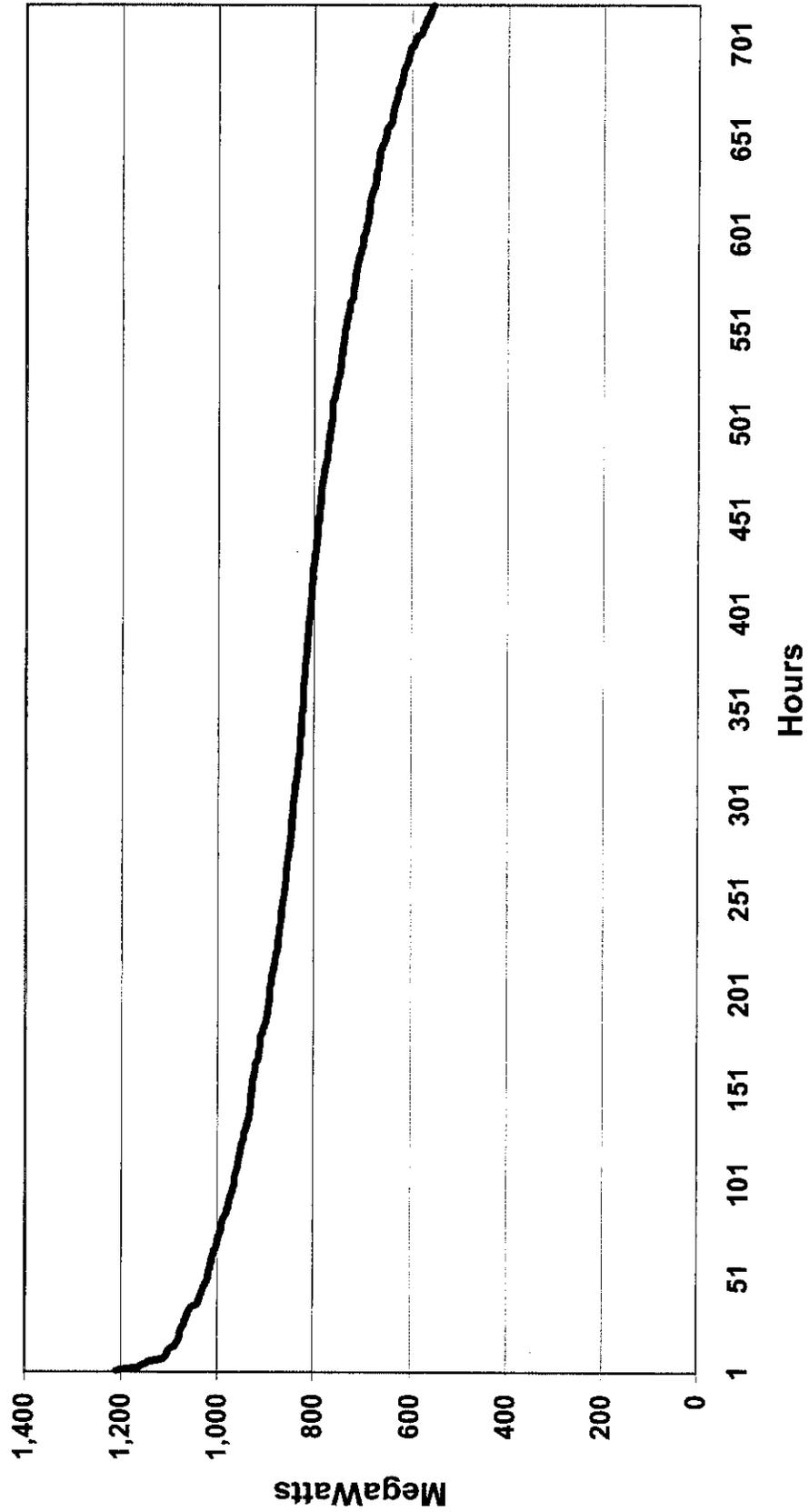
### Kentucky Power Company September 2003 Load Duration Curve (Internal Load)



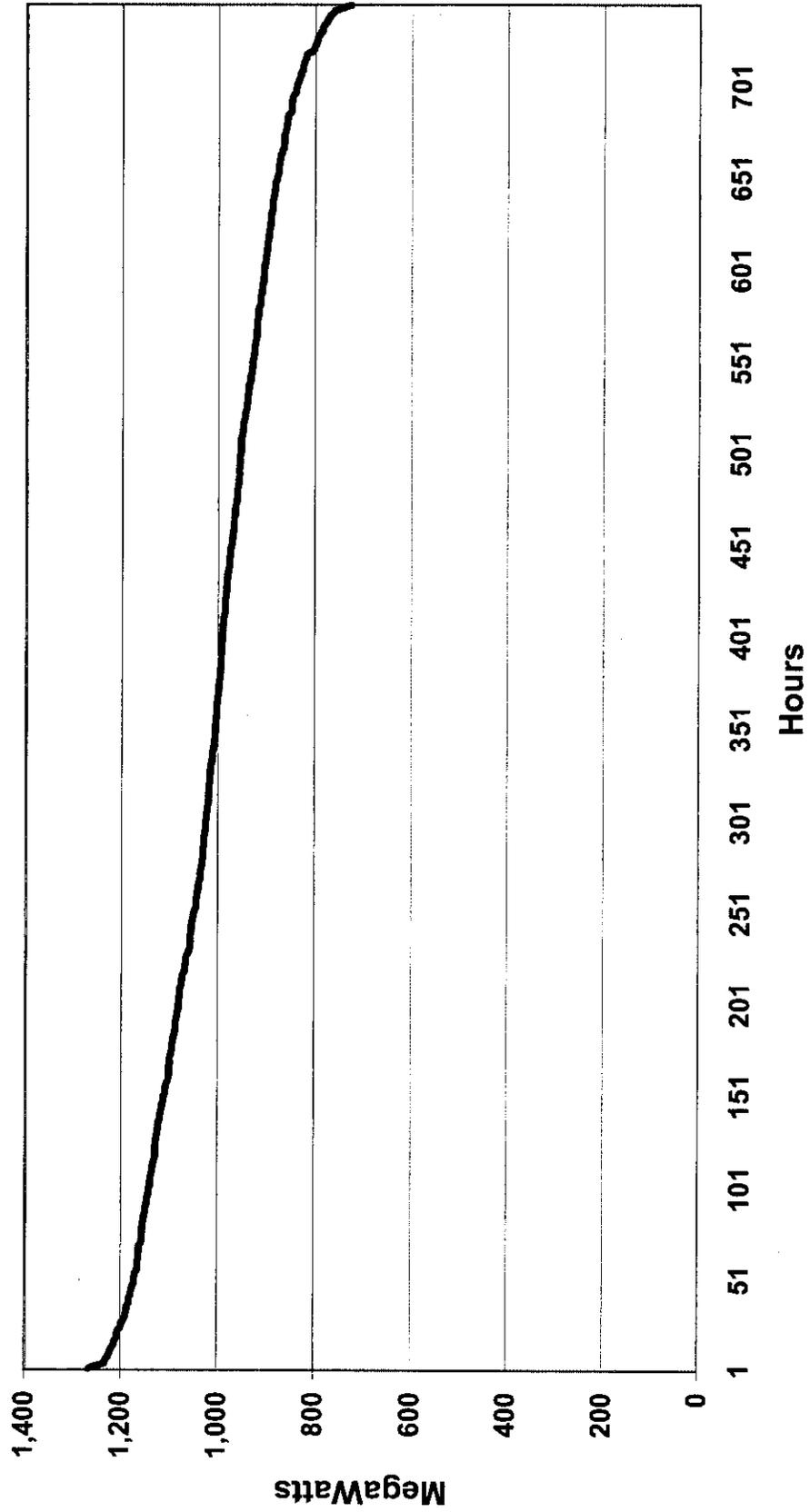
### Kentucky Power Company October 2003 Load Duration Curve (Internal Load)



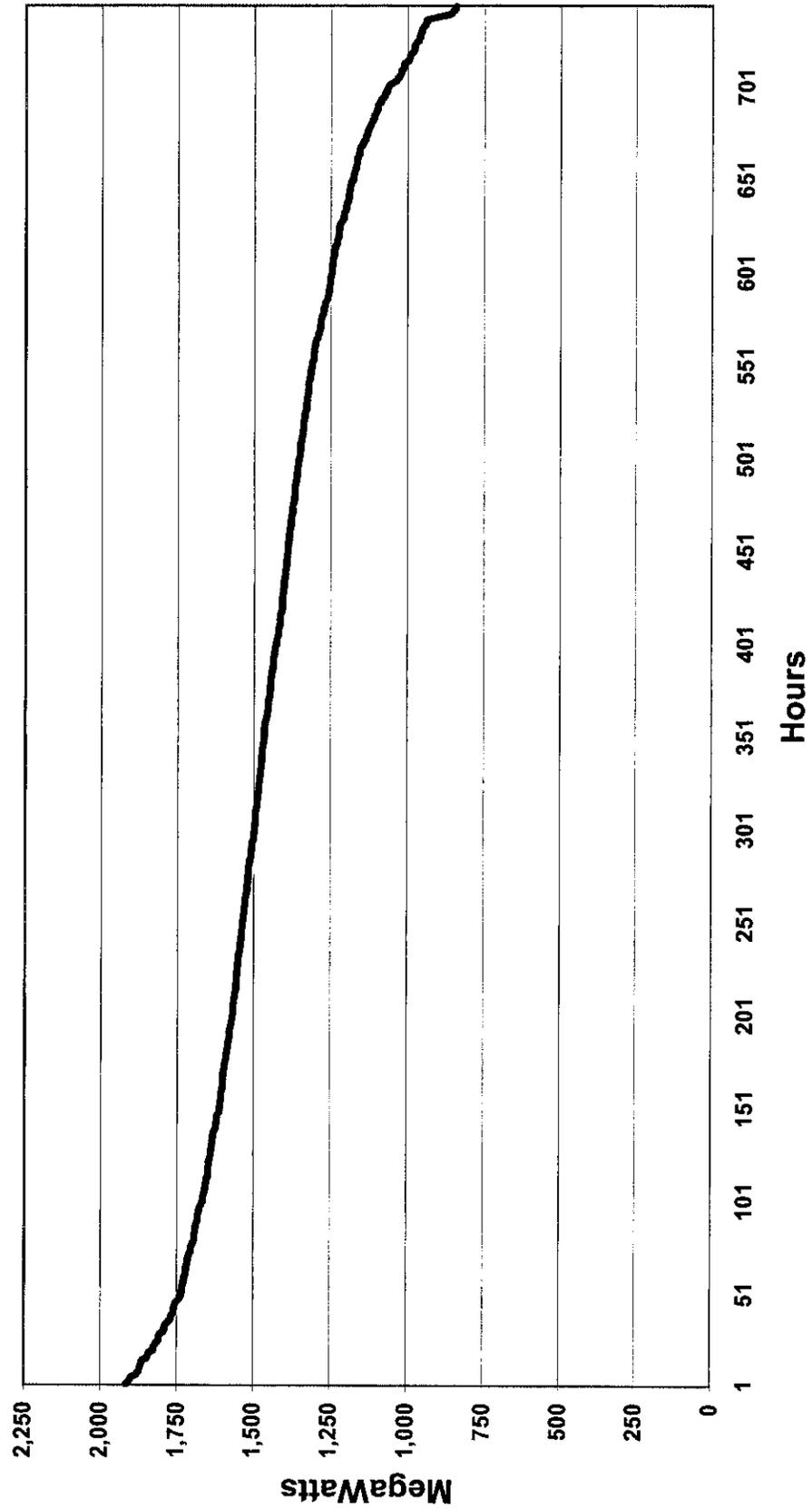
### Kentucky Power Company November 2003 Load Duration Curve (Internal Load)



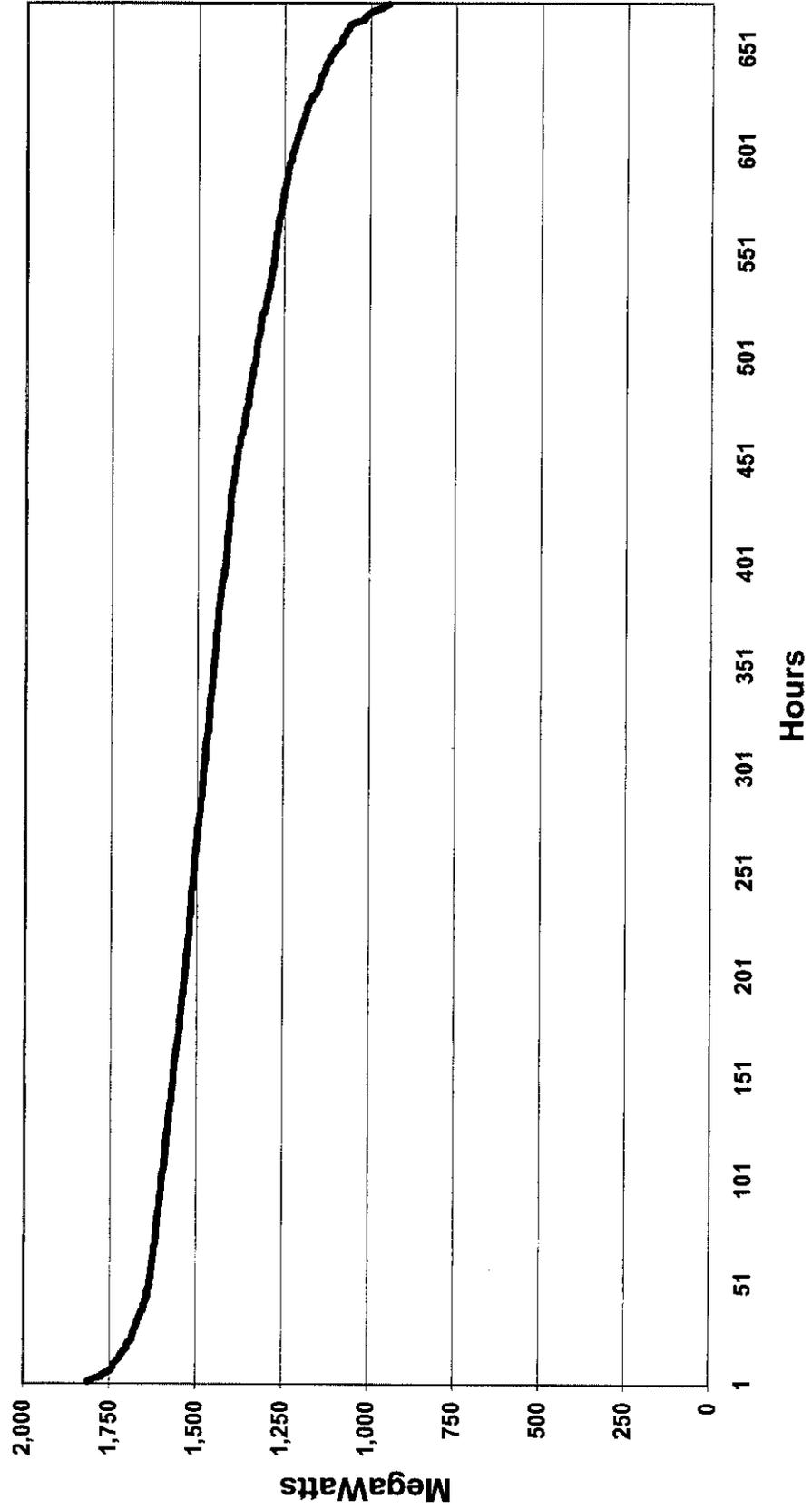
### Kentucky Power Company December 2003 Load Duration Curve (Internal Load)



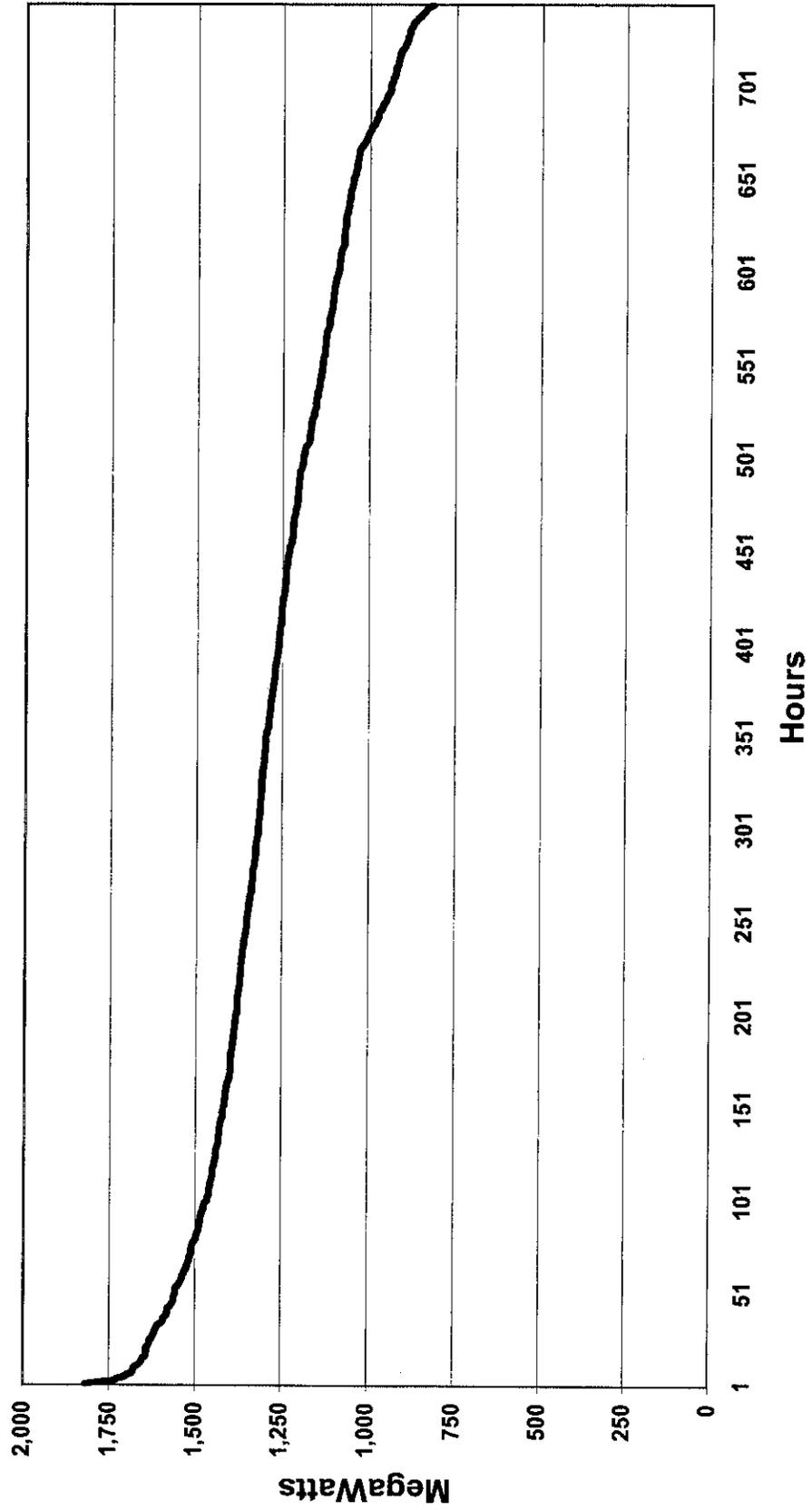
### Kentucky Power Company January 2003 Load Duration Curve (System Load)



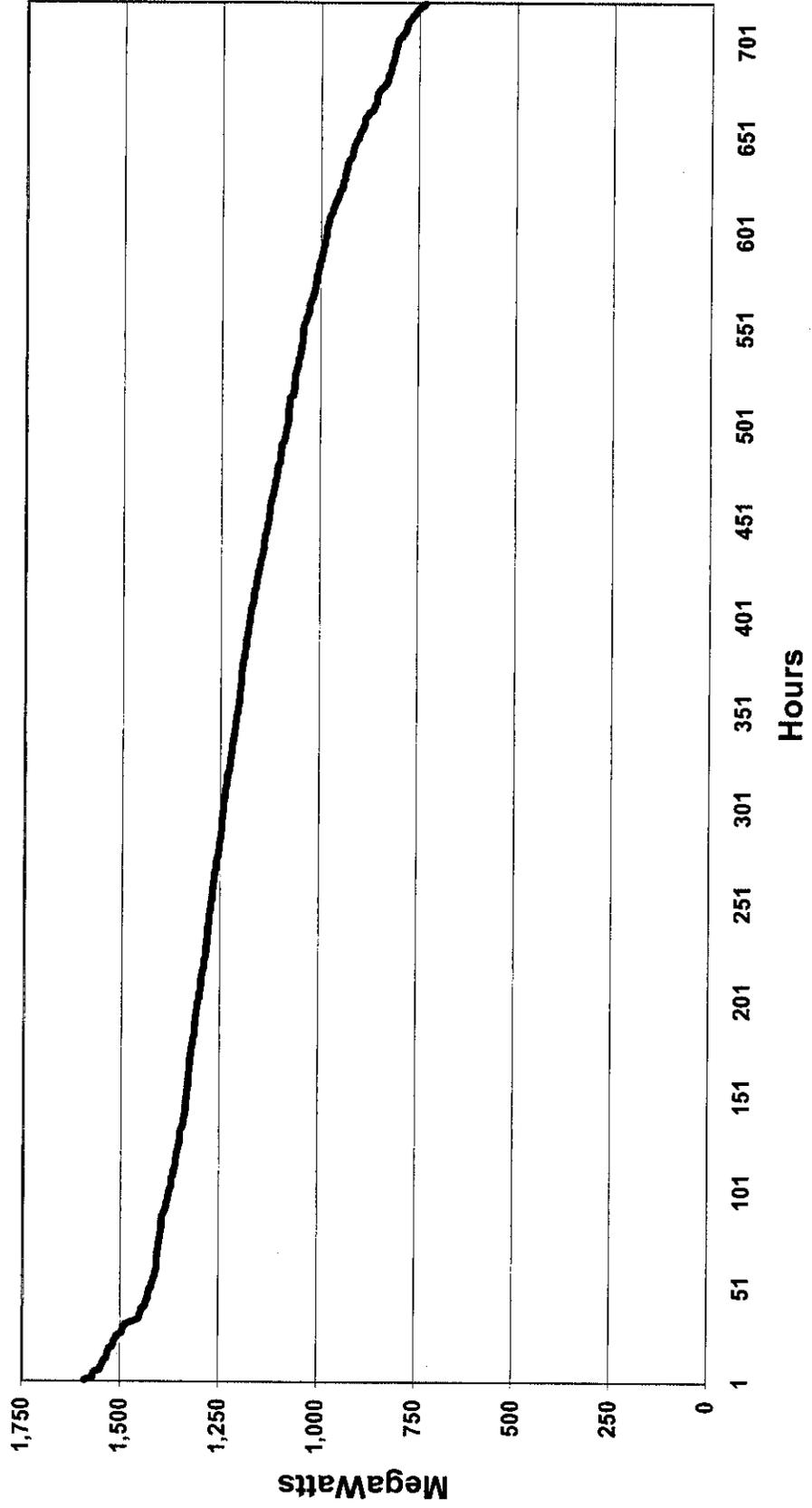
### Kentucky Power Company February 2003 Load Duration Curve (System Load)



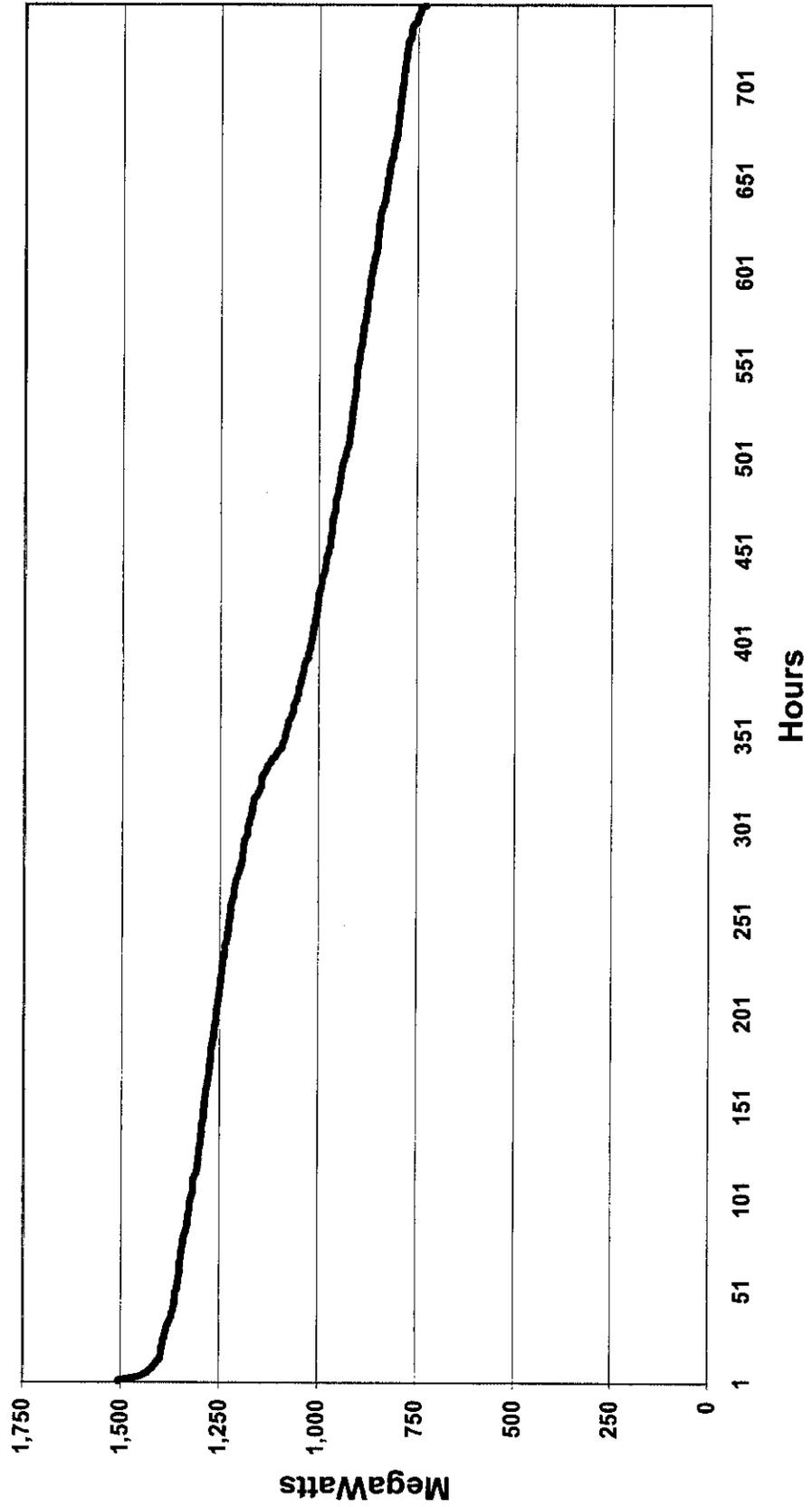
### Kentucky Power Company March 2003 Load Duration Curve (System Load)



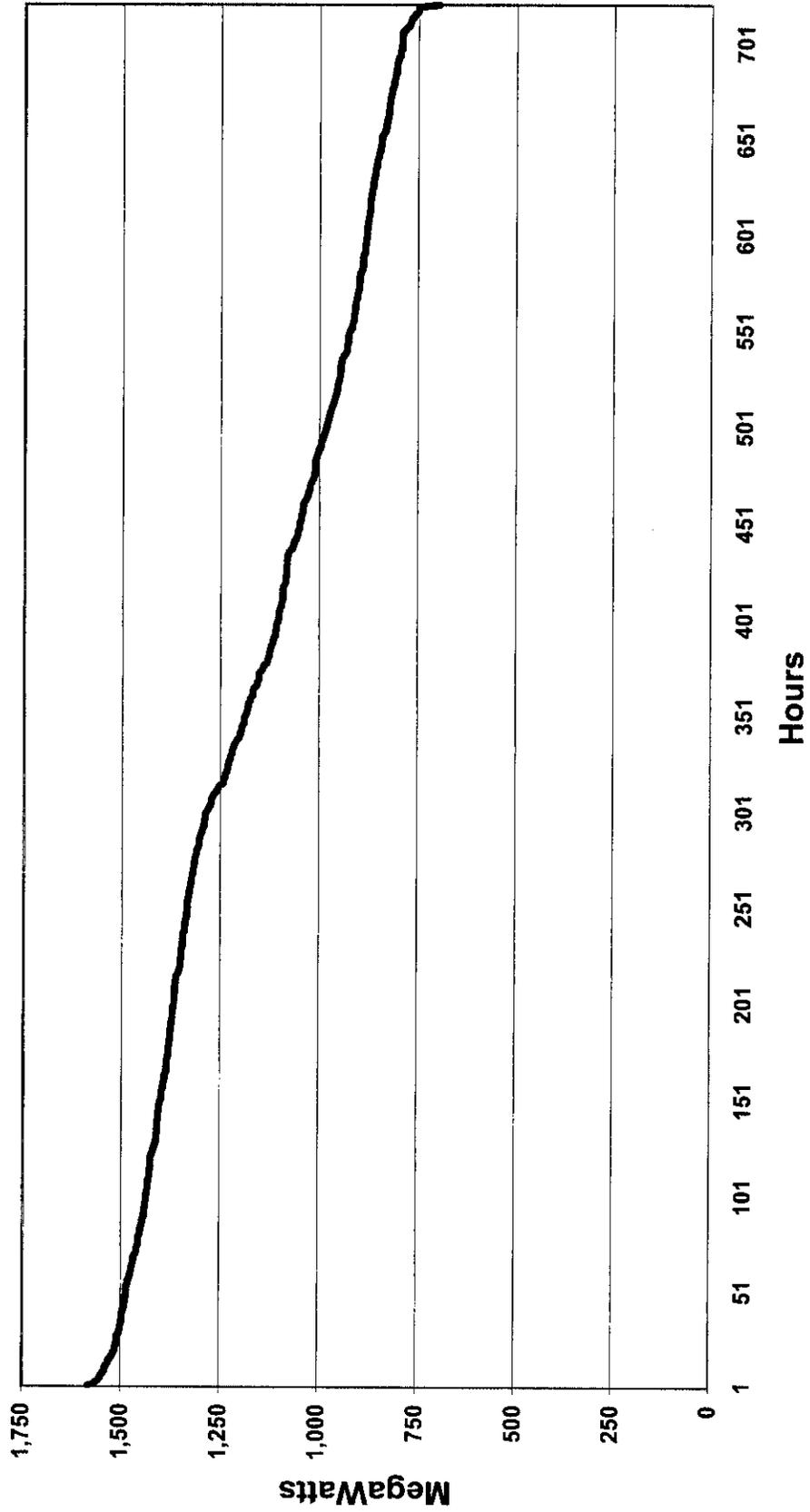
### Kentucky Power Company April 2003 Load Duration Curve (System Load)



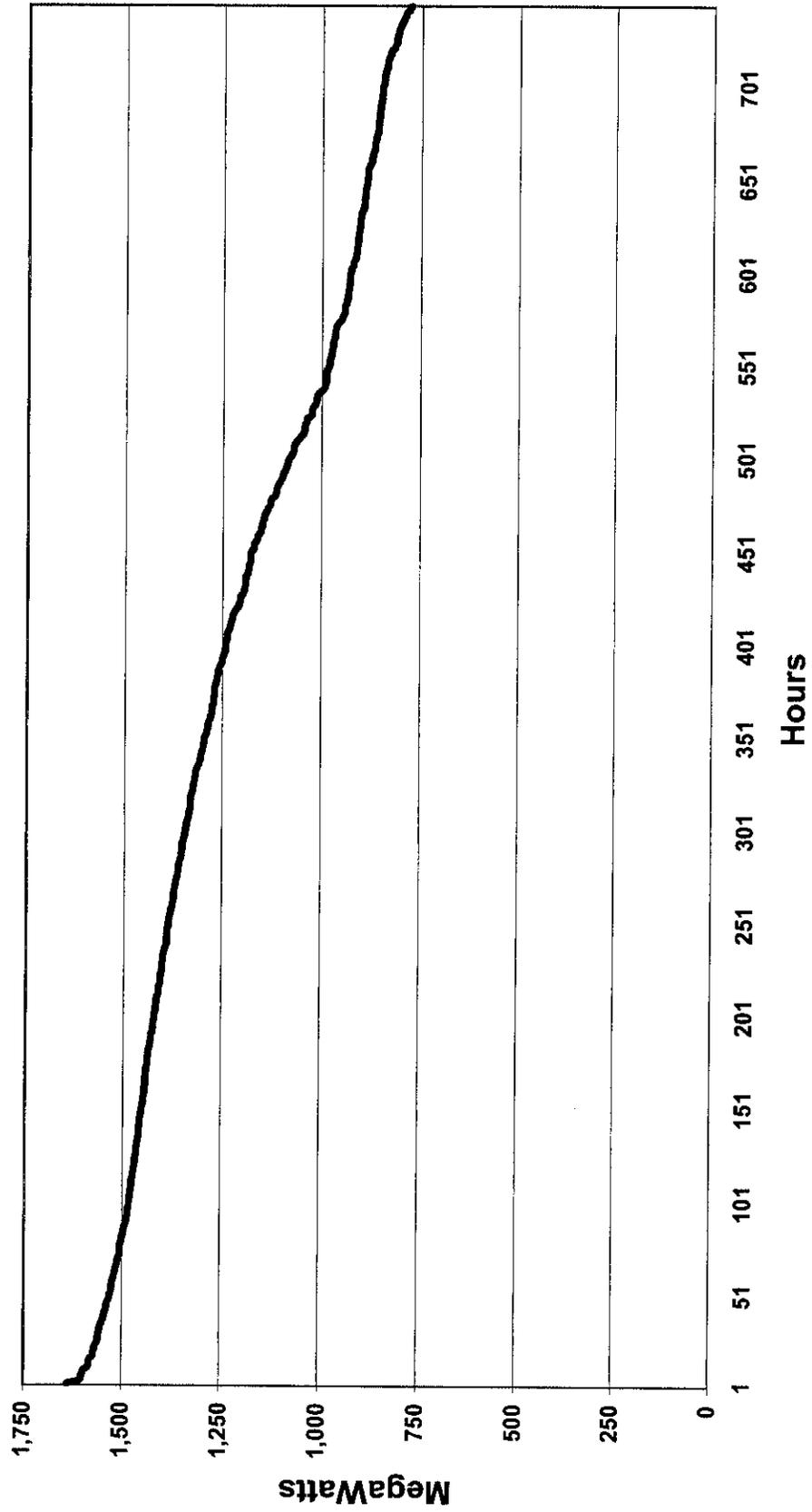
### Kentucky Power Company May 2003 Load Duration Curve (System Load)



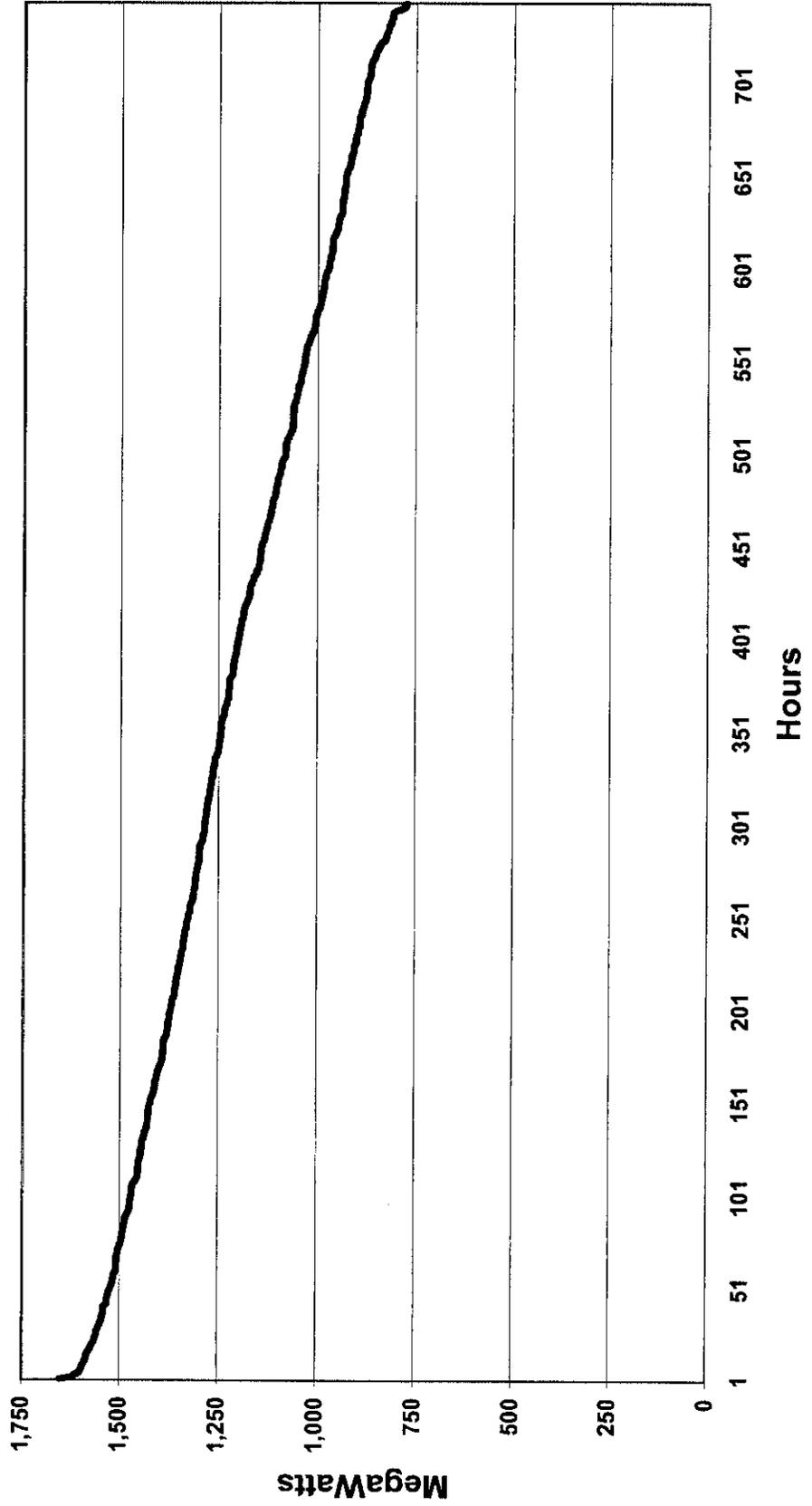
### Kentucky Power Company June 2003 Load Duration Curve (System Load)



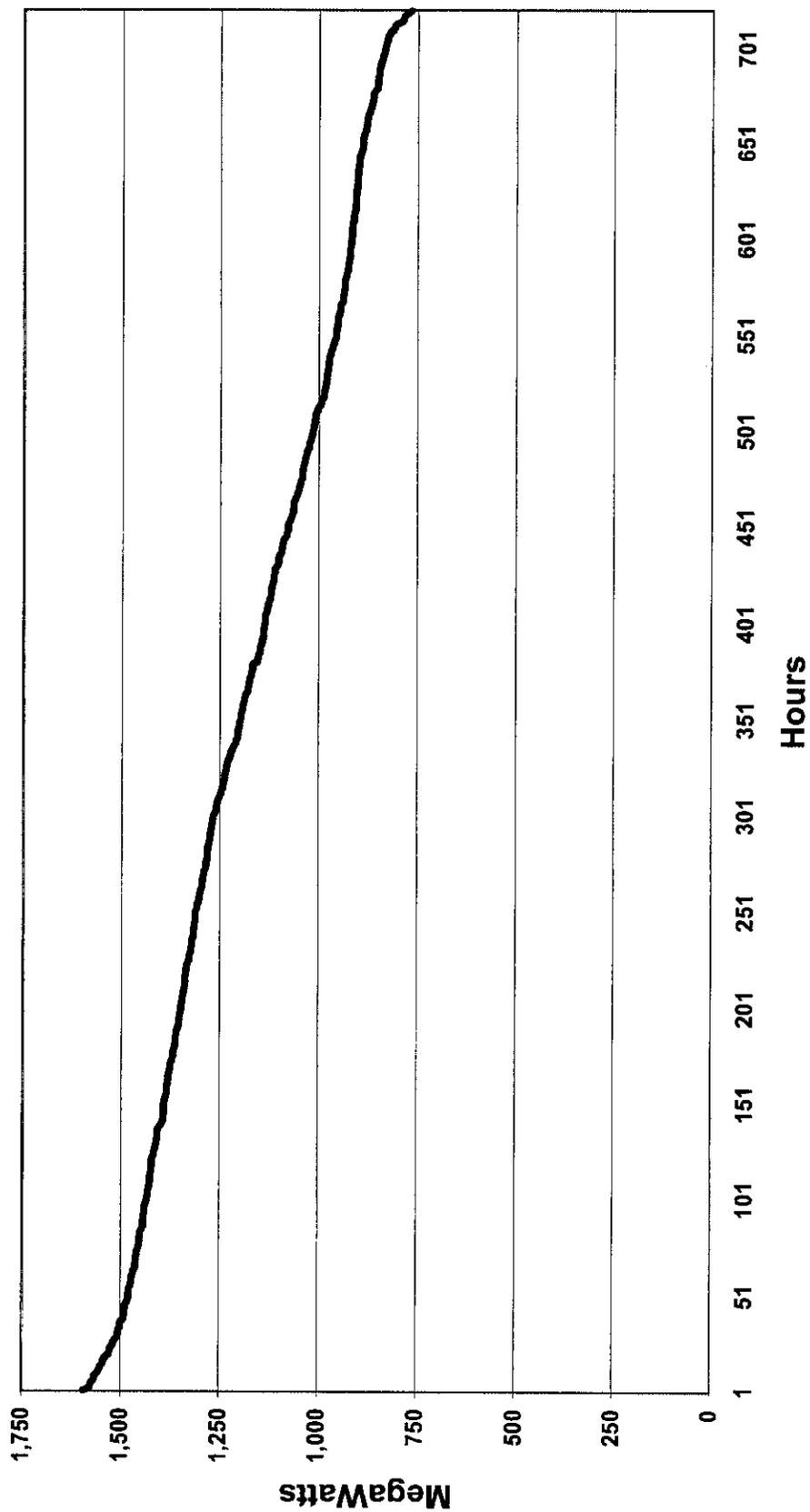
### Kentucky Power Company July 2003 Load Duration Curve (System Load)



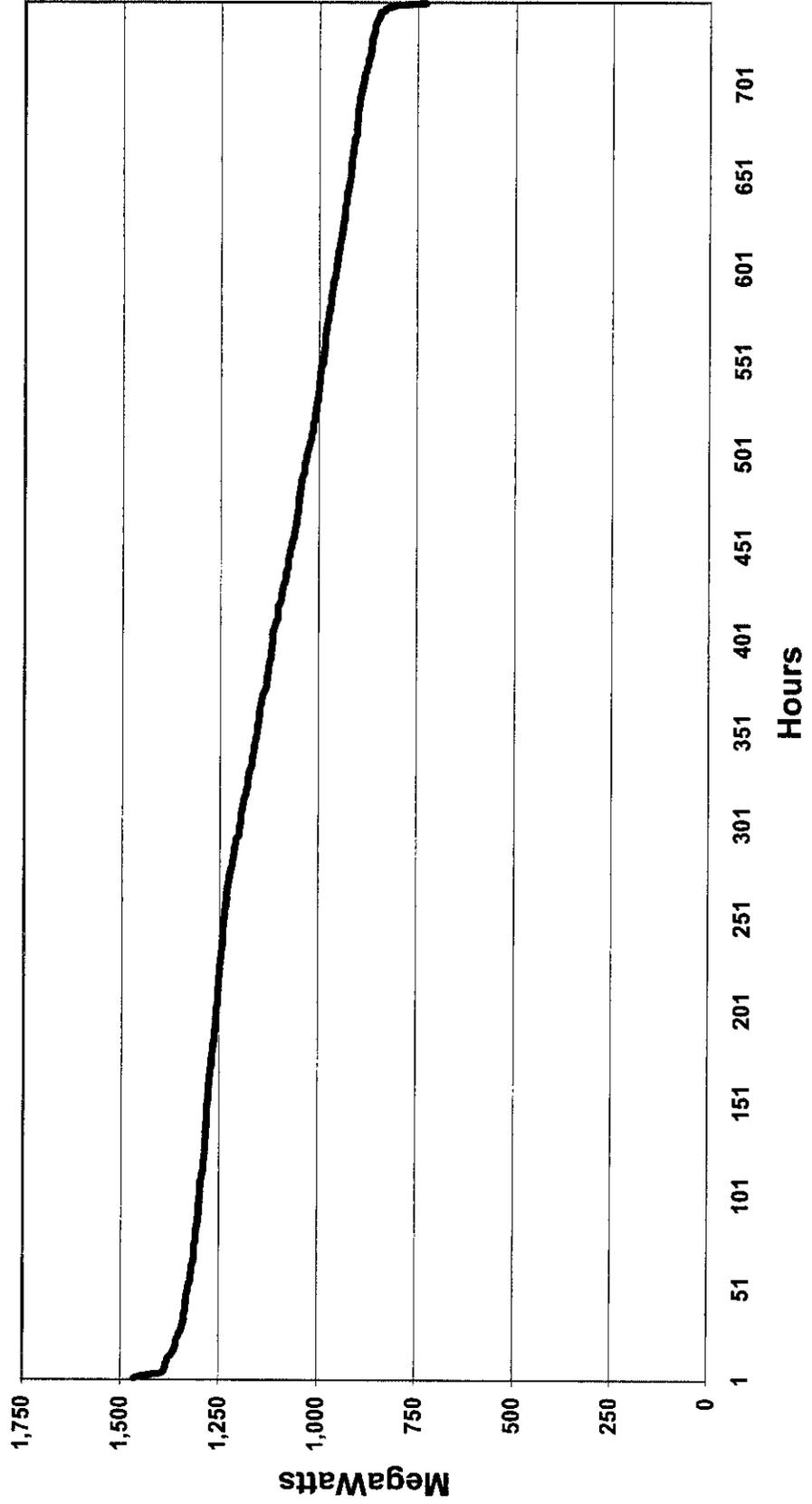
### Kentucky Power Company August 2003 Load Duration Curve (System Load)



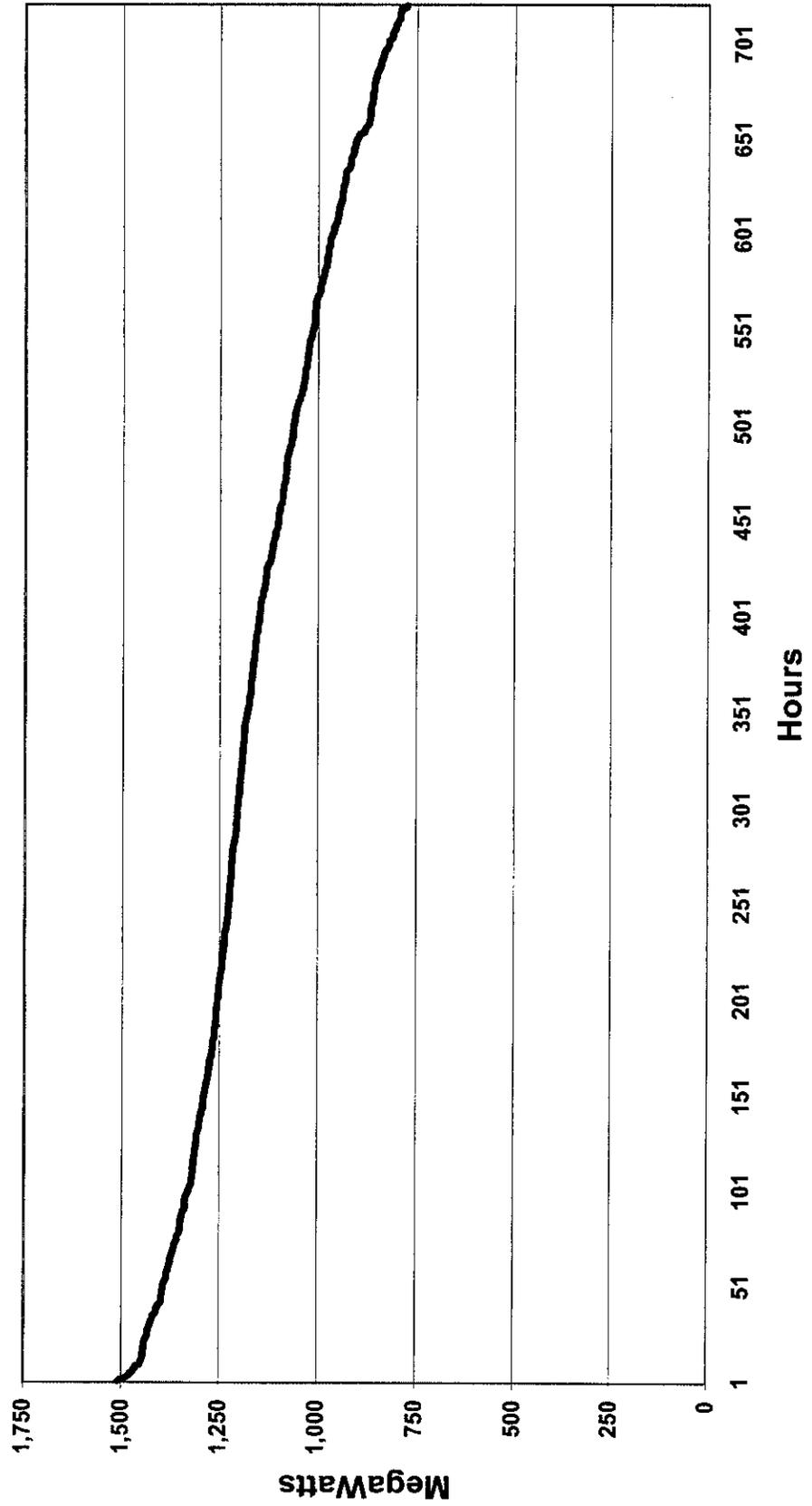
### Kentucky Power Company September 2003 Load Duration Curve (System Load)



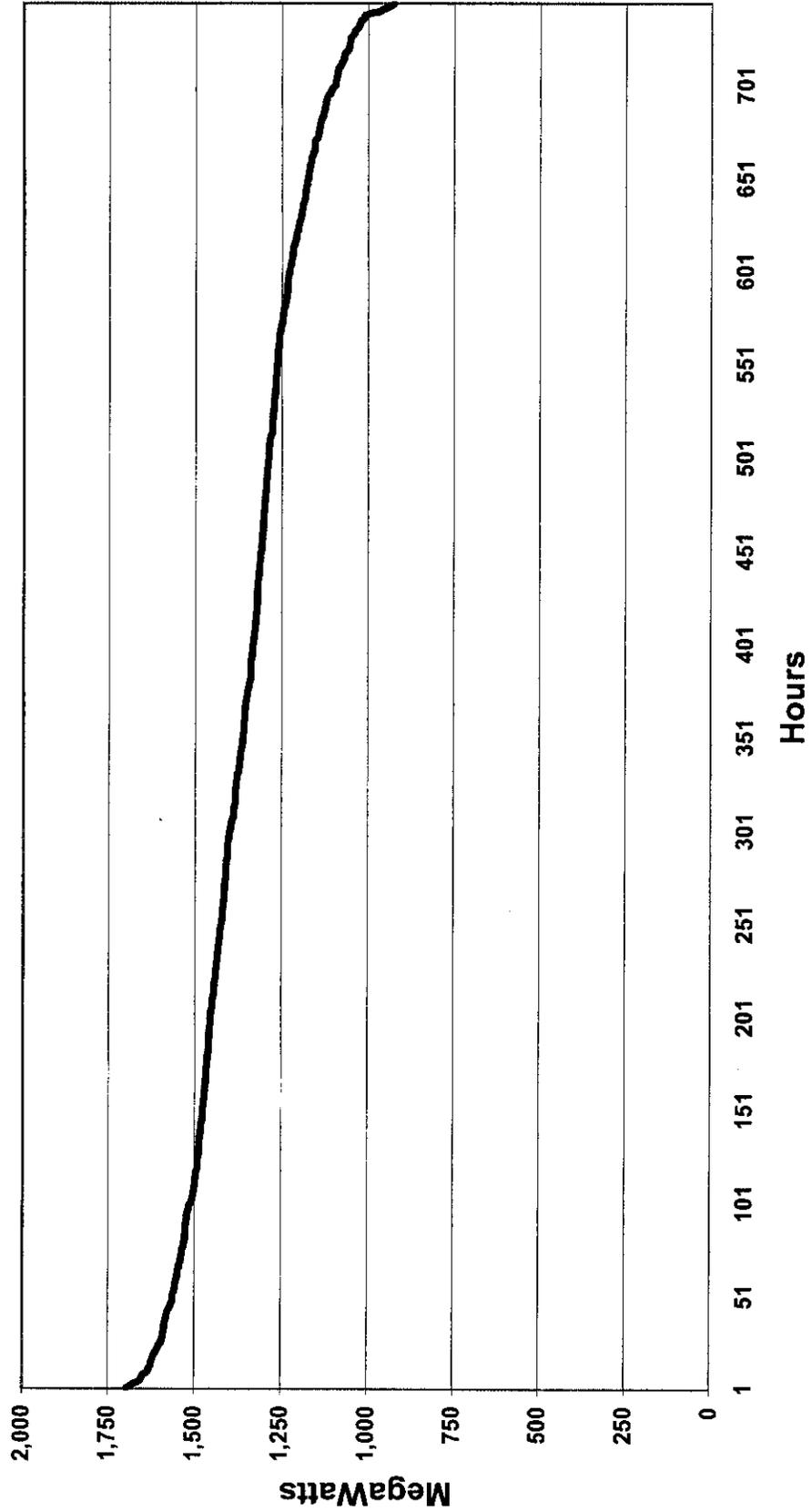
### Kentucky Power Company October 2003 Load Duration Curve (System Load)



### Kentucky Power Company November 2003 Load Duration Curve (System Load)



### Kentucky Power Company December 2003 Load Duration Curve (System Load)



**Kentucky Power  
d/b/a  
American Electric Power**

**REQUEST**

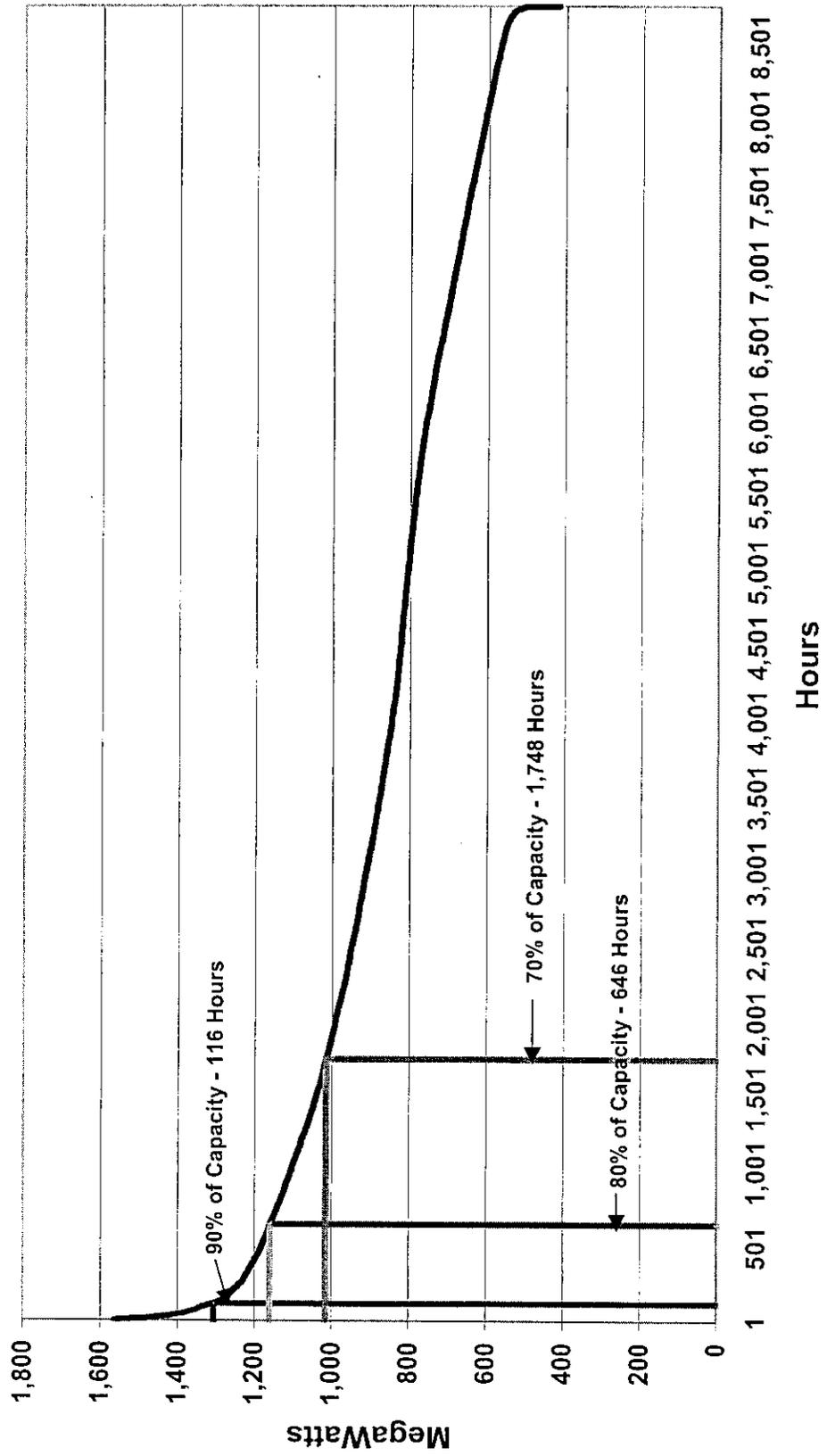
Load shape curves showing the number of hours that native load demand exceeded these levels during the just completed calendar year: (1) 70% of the sum of installed generating capacity plus firm capacity purchases; (2) 80% of the sum of installed generating capacity plus firm capacity purchases; (3) 90% of the sum of installed generating capacity plus firm capacity purchases.

**RESPONSE**

Page 2 provides a 2003 internal load duration curve for Kentucky Power Company. There are lines that indicate the load at 70%, 80% and 90% of capacity plus firm capacity purchases. In addition, the number of hours that load exceeded these percentages of capacity are provided on this exhibit.

**WITNESS:** Errol K Wagner

# Kentucky Power Company 2003 Load Duration Curve



**Kentucky Power**  
**d/b/a**  
**American Electric Power**

**REQUEST**

Based on the most recent demand forecast, the base case demand and energy forecasts and high case demand and energy forecasts for the current year and the following four years. The information should be disaggregated into (a) native load (firm and non-firm demand) and (b) off-system load (both firm and non-firm demand).

**RESPONSE**

Page 2 provides Kentucky Power Company's forecast of seasonal peak internal demands and annual internal energy requirements. In addition, the associated high forecast for seasonal peak internal demands and internal energy requirements are provided on this page.

Kentucky Power Company's forecast of off-system energy sales is provided on Page 3 of this response. A forecast of Kentucky Power Company's off-system peak demand has not been developed and therefore, such a forecast is not available. In addition, high forecasts for off-system energy sales and peak demand have not been developed and therefore, such forecasts are not available.

**WITNESS:** Errol K Wagner

Kentucky Power Company  
 Base and High Forecast  
 Energy Sales (GWH) and Seasonal Peak Demand (MW)  
 2004 - 2008

Year	Energy Sales		Summer Peak Demand		Preceding Winter Peak Demand	
	Base	High	Base	High	Base	High
2004	7,782	7,855	1,308	1,320	1,582	1,596
2005	7,948	8,078	1,342	1,363	1,623	1,649
2006	7,906	8,080	1,333	1,362	1,614	1,649
2007	8,064	8,285	1,359	1,397	1,646	1,691
2008	8,170	8,446	1,374	1,420	1,664	1,720

Kentucky Power Company  
Forecast Off-System Energy Sales (GWh)  
2004 - 2008

<u>Year</u>	<u>Off-System Sales</u>
2004	2,148
2005	2,158
2006	2,160
2007	1,965
2008	1,905

**Kentucky Power**  
**d/b/a**  
**American Electric Power**

**REQUEST**

The target reserve margin currently used for planning purposes, stated as a percentage of demand. If changed from what was in use in 2001, include a detailed explanation for the change.

**RESPONSE**

In assessing projected capacity needs, a guideline is used with the objective of maintaining the ECAR-prescribed operating reserve (currently 4% of daily peak load). The AEP System is currently planning to maintain the 4% daily operating reserve margin required by the ECAR region and has estimated that a 12% planning margin during seasonal peak weeks is adequate to maintain this required operating reserve.

**WITNESS:** Errol K Wagner

**Kentucky Power**  
**d/b/a**  
**American Electric Power**

**REQUEST**

Projected reserve margins stated in megawatts and as a percentage of demand for the current year and the following 4 years. Identify projected deficits and current plans for addressing these. For each year identify the level of firm capacity purchases projected to meet native load demand.

**RESPONSE**

Sheet 2 of this response provides projected winter peak demands, capabilities, and margins for KPCo for the period 2003/04 through 2007/08.

**WITNESS:** Errol K Wagner

**KENTUCKY POWER COMPANY**  
**Projected Winter Peak Demands, Generating Capabilities, and Margins**  
**(2003/04 - 2007/08)**

Winter Season	Peak Demand - MW				Generating Capability - MW			Margin	
	Internal Demand (1)	DSM (2)	Committed Sales (a) (3)	Total Demand (4)=(1)+(2)+(3)	Installed Capability (5)	Purchase (b) (6)	Total Capability (7)=(5)+(6)	MW (8)=(7)-(4)	As a Percent of Demand (9)=(8)/(4)100
2003/04	1,582	0	122	1,704	1,450	39	1,489	(215)	(12.6)
2004/05	1,623	1	118	1,740	1,450	40	1,490	(250)	(14.4)
2005/06	1,614	1	80	1,693	1,450	7	1,457	(236)	(13.9)
2006/07	1,646	1	89	1,734	1,450	8	1,458	(276)	(15.9)
2007/08	1,664	1	55	1,718	1,450	8	1,458	(260)	(15.1)

Notes: (a) Includes MLR share of municipal and off-system sales under FERC designations LF and IF.

(b) The following purchases have been assumed:

MLR share of 546 MW (winter) from R. P. Mone Plant through 12/05

MLR share of 109 MW (winter) from R. P. Mone Plant from 1/06 through 7/32

Does not reflect purchases by the AEP East System to maintain operating reserve, if any.

**Kentucky Power**  
**d/b/a**  
**American Electric Power**

**REQUEST**

By date and hour, identify all incidents during the just completed calendar year when reserve margin was less than the East Central Area Reliability Council's ("ECAR") 1.5% spinning reserve requirement. Include the amount of capacity resources that were available, the actual demand on the system, and the reserve margin, stated in megawatts and as a percentage of demand. Also identify system conditions at the time.

**RESPONSE**

Hourly records are not available. AEP reviewed its Control Area records for the 12 monthly peak internal demand days during 2003 and ascertained that the 1.5% spinning reserve requirement was being met for both the ECAR common hour and AEP internal peak hour.

**WITNESS:** Errol K Wagner

**Kentucky Power  
d/b/a  
American Electric Power**

**REQUEST**

A list identifying and describing all forced outages in excess of 2 hours in duration during the just completed calendar year.

**RESPONSE**

**UNIT 1 - 2003**

<b>DATE OUT OF SERVICE</b>	<b>DATE IN SERVICE</b>	<b>DURATION (HRS)</b>	<b>REASON</b>
1/16/2003	1/18/2003	44.1	To remove a clinker in the ash hopper throat
4/7/2003	4/8/2003	3.9	Due to problems with the oil lighters
8/27/2003	9/4/2003	198.2	Furnace wall tube leak on the division wall
9/28/2003	9/9/2003	20.0	Due to a stuck air heater rotor
9/30/2003	10/4/2003	86.5	Due to problems with the upper reheat stop valve
10/11/2003	10/13/2003	63.8	Furnace wall tube leak on side wall near roof (leaking to the outside)

**UNIT 2 - 2003**

<b>DATE OUT OF SERVICE</b>	<b>DATE IN SERVICE</b>	<b>DURATION (HRS)</b>	<b>REASON</b>
12/31/2002	1/4/2003	81.5	Due to problems with the electrostatic precipitator
1/24/2003	1/25/2003	26.0	Due to a boiler air damper closing as a result of a frozen air line
2/15/2003	2/19/2003	97.3	Due to pulverizer control systems problems that resulted from a burner line fire
2/19/2003	2/20/2003	11.1	To repair damaged control wiring for several electrostatic precipitator fields
2/22/2003	3/19/2003	583.3	To replace the 2nd reheat rotor due to high vibration that resulted from a problem with the coupling
5/13/2003	5/15/2003	46.9	Due to problems with the circulating water pump motor that resulted from the cooling tower overflowing due to a faulty level indicating device
5/20/2003	5/20/2003	16.0	Due to leaks in the hydrogen cooler vent piping
6/6/2003	6/9/2003	89.6	Furnace wall tube leak in lower part near windbox connection
6/11/2003	6/17/2003	139.6	To replace the boiler feed pump rotating element due to high vibration
6/29/2003	6/30/2003	13.4	Tripped unit due to a fire in a control cabinet near the boiler feed pump
9/18/2003	9/21/2003	55.0	Due to problems with the valve positioning controls for the boiler feed pump turbine
9/21/2003	9/21/2003	13.2	Due to a broken shaft on the servo for the boiler feed pump turbine control valves
10/2/2003	10/3/2003	35.7	Due to a crack in the reheat steam piping
10/13/2003	10/13/2003	12.7	Balancing the boiler feed pump turbine
12/30/2003	12/30/2003	13.5	Due to high dearator level that resulted from problems with the level control valve controls

**WITNESS:** Errol K Wagner

**Kentucky Power  
d/b/a  
American Electric Power**

**REQUEST**

A list that identifies scheduled outages or retirements of generating capacity during the current year and the following four years.

**RESPONSE**

**Big Sandy Unit 1**

2004	Less Than 4 Weeks
2005	Less Than 4 Weeks
2006	More Than 4 Weeks
2007	Less Than 4 Weeks
2008	Less Than 4 Weeks

**Big Sandy Unit 2**

2004	Less Than 4 Weeks
2005	Less Than 4 Weeks
2006	Less Than 4 Weeks
2007	More Than 4 Weeks
2008	Less Than 4 Weeks

There are no plans anticipated to retire generation capacity at Big Sandy Plant either during the current year or following four years.

**WITNESS:** Errol K Wagner

**Kentucky Power  
d/b/a  
American Electric Power**

**REQUEST**

Identify all planned base load or peaking capacity additions to meet native load requirements over the next 10 years. Show the expected in-service date, size and site for all planned additions. Include additions planned by the utility, as well as those by affiliates, if constructed in Kentucky or intended to meet load in Kentucky.

**RESPONSE**

At this time, neither KPCo nor any other eastern AEP System affiliate have any plans for construction of new capacity in Kentucky or intended to meet native load requirements in Kentucky.

**WITNESS:** Errol K Wagner

**Kentucky Power**  
**d/b/a**  
**American Electric Power**

**REQUEST**

The following transmission energy data for the just completed calendar year and the forecast for the current year and the following four years:

- a. Total energy received from all interconnections and generation sources connected to the transmission system.
- b. Total energy delivered to all interconnections on the transmission system.

**RESPONSE**

Please see attachment.

**WITNESS:** Errol K Wagner

13(a) All quantities represent metered values.

<u>Received from (MWh):</u>	<u>2003</u> (Actual)	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>
Appalachian Power (1)	11,353,842	(4)	(4)	(4)	(4)	(4)
Ohio Power (1)	8,224,235	(4)	(4)	(4)	(4)	(4)
East Ky Power Coop	277,577	(4)	(4)	(4)	(4)	(4)
LGE(Kentucky Utilities)	91,767	(4)	(4)	(4)	(4)	(4)
TVA	585,205	(4)	(4)	(4)	(4)	(4)
Illinois Power Co. (2)	8,866	(5)	(5)	(5)	(5)	(5)
Illinois Power Co. (3)	10,190	(5)	(5)	(5)	(5)	(5)
Big Sandy Generating Plant	6,170,931	7,364,000	7,052,000	7,036,900	6,674,300	7,362,700

13(b) All quantities represent metered values.

<u>Delivered to (MWh) :</u>	<u>2003</u> (Actual)	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>
Appalachian Power (1)	18,721,045	(4)	(4)	(4)	(4)	(4)
Ohio Power (1)	235,326	(4)	(4)	(4)	(4)	(4)
East Ky Power Coop	275,826	(4)	(4)	(4)	(4)	(4)
LGE(Kentucky Utilities)	1,268	(4)	(4)	(4)	(4)	(4)
TVA	13	(4)	(4)	(4)	(4)	(4)
Illinois Power Co. (2)	(5)	(5)	(5)	(5)	(5)	(5)
Illinois Power Co. (3)	(5)	(5)	(5)	(5)	(5)	(5)

Notes: (1) An AEP System company.

(2) At the Riverside independent power producing plant (IPP) in Lawrence County, KY.

(3) At the Foothills independent power producing plant (IPP) in Lawrence County, KY

(4) The Company does not forecast metered interchange; however, the future years' energy flows are not expected to be materially different from the year 2003 actuals.

(5) The Company does not, and can not, forecast energy production output from an IPP.

**Kentucky Power  
d/b/a  
American Electric Power**

**REQUEST**

The following transmission energy data for the just completed calendar year and the forecast for the current year and the following four years:

- c. Peak load capacity of the transmission system.
- d. Peak demand for summer and winter seasons on the transmission system.

**RESPONSE**

The maximum amount of electric energy that can be transmitted through a transmission network is a function of the level and location of the load and generation connected to the transmission system as well as the level and direction of transmission service into, out of and through the network. Therefore the 'Peak Load Capacity' of the transmission system cannot be quantified as a single value. The eastern AEP Transmission System has the capacity to reliably serve the connected load as well as the capacity to provide the transmission service needs of the wholesale market.

The eastern AEP Transmission System consists of over 14,000 miles of circuitry, operating at or above 138 kV, and additional lower voltages facilities that span portions of seven states including Kentucky. This highly integrated and interconnected transmission system, which includes over 2,000 miles of 765 kV lines overlaying 3,800 miles of 345 kV lines, allows AEP to economically and reliably deliver electric power throughout the AEP service area and to neighboring systems. The eastern AEP Transmission System also has facilities that operate at 500 kV, 230 kV, 161 kV and 138 kV. Currently, the eastern AEP Transmission System is directly connected to 25 other systems at 144 interconnection points, of which 121 operate at or above 115 kV. These interconnections provide an electric pathway to assure access to off-system resources, as well as a delivery mechanism to adjacent systems. The peak load connected to the eastern AEP Transmission System was approximately 22,000 MW for the most recent summer and winter seasons. There is approximately 25,000 MW of AEP generation and nearly 8,000 MW of merchant generation connected to the eastern AEP Transmission System. AEP has

Interconnection Agreements with several merchant plant developers for over 6,000 MW of additional generation to be connected to the eastern AEP Transmission System over the next four years. The amount of this planned generation that will actually come to fruition remains unpredictable.

To provide a measure of the capability of the eastern AEP Transmission System, the simultaneous sum of electric power delivered to the eastern AEP Transmission System's connected native/network customers plus the electric power delivered to neighboring systems has exceeded 34,000 MW.

**WITNESS:** Errol K Wagner

**Kentucky Power**  
**d/b/a**  
**American Electric Power**

**REQUEST**

Identify all planned transmission capacity additions for the next 10 years. Include the expected in-service date, size and site for all planned additions and identify the transmission need each addition is intended to address.

**RESPONSE**

AEP has not identified any transmission expansion projects in Kentucky required to serve its native customer load through 2011, although the planned Wyoming – Jacksons Ferry 765 kV line will have collateral benefits to the Kentucky customers. However, the planning horizon for 138 kV and lower voltage transmission facilities is about two years. The planning horizon for transmission facilities greater than 138 kV is approximately five years due to the longer approval, engineering, design and construction times typically associated with these higher voltage transmission projects.

If Independent Power Producer (IPP) facilities locate in Kentucky, it may be necessary to expand the transmission system to integrate these new transmission customers into the network. At this time there are two merchant generators connected to the AEP Transmission System in Kentucky. These facilities, totaling 835 MW, are both located adjacent to the AEP Big Sandy Station. The first facility (500 MW) was placed in commercial operation in Summer 2001. The second merchant generator (335 MW) became commercial in Summer 2002.

There is presently only one other merchant generator that has executed an Interconnection Agreement with AEP and plans to connect to the AEP Transmission System within Kentucky. In conjunction with this 500 MW generation facility, approximately 40 miles of 138 kV line will be required to be built within Kentucky to reliably integrate this facility into the AEP

Transmission System. The current in-service date for this merchant generator and the associated transmission changes and modifications is June 2006. The Interconnection Agreement with this merchant generator expired earlier in 2004. The merchant generator, however, has requested FERC to extend the Interconnection Agreement by an additional one year.

It is noted that facility additions to connect an IPP to the AEP system are paid for by the IPP as direct assignment facilities. Other facility improvements necessary to reliably integrate the IPP into the existing transmission system are paid for up front by the IPP subject to a reimbursement based on transmission service utilization.

WITNESS: Errol K Wagner