



Kentucky Power
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Frankfort, KY 40602-5190
KentuckyPower.com

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APR 30 2013

PUBLIC SERVICE
COMMISSION

April 30, 2013

Jeff R. Derouen
Executive Director
Public Service Commission of Kentucky
PO Box 615
Frankfort, KY 40602-0615

RE: Administrative Case No. 387

Dear Mr. Derouen:

Pursuant to the Commission's October 7, 2005 Order in the above case please find enclosed and accept for filing original and ten copies of the 2012 Annual Resource Assessment for Kentucky Power Company. Also enclosed are one copy of the Kentucky Power Company 2012 FERC Form No. 1 and one copy of the 2012 Annual Public Service Commission Utility Financial Report for Kentucky Power Company.

If you have any questions, please do not hesitate to contact me at (502) 696-7010.

Sincerely yours,

Lila P. Munsey
Manger Regulatory Services

cc: Mark R. Overstreet

Kentucky Power Company

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). Please provide the information for both Kentucky Power Company individually and the AEP-East Power Pool (pursuant to the Commission's December 13, 2004 Order in the Rockport UPSA extension, Case No. 2004-00420).

RESPONSE

Attachment 1, Page 1 of this response provides actual and weather normalized 2012 monthly internal peak demands for Kentucky Power Company and AEP System-East. Kentucky Power Company and AEP System-East had 21 and 851 MW of contractual interruptible capacity, respectively.

Attachment 1, Page 2 of this response provides actual 2012 monthly system peak demands for Kentucky Power and AEP System-East. The system demands include internal load and off-system sales. Weather-normalized monthly peak system demands for Kentucky Power Company and AEP System-East have not been developed and therefore, are not available.

WITNESS: Lila P Munsey

Kentucky Power Company and AEP System-East Zone
Actual and Weather Normalized Peak Internal Demand (MW)
2012

Month	Kentucky Power Company				AEP System-East Zone			
	Peak	Peak Day	Peak Hour	Normalized Peak	Peak	Peak Day	Peak Hour	Normalized Peak
January	1,378	1/4/2012	8	1,472	19,420	1/3/2012	19	20,155
February	1,340	2/13/2012	8	1,341	19,033	2/13/2012	8	19,077
March	1,247	3/6/2012	8	1,261	17,612	3/6/2012	8	18,050
April	1,071	4/12/2012	7	949	15,735	4/12/2012	7	14,963
May	1,066	5/3/2012	13	1,036	17,761	5/29/2012	16	17,042
June	1,183	6/29/2012	16	1,105	21,030	6/28/2012	17	19,471
July	1,182	7/26/2012	16	1,117	20,923	7/17/2012	13	20,833
August	1,138	8/8/2012	16	1,155	20,292	8/2/2012	16	20,143
September	1,050	9/5/2012	16	1,004	18,876	9/6/2012	16	17,590
October	1,046	10/29/2012	19	851	16,435	10/29/2012	19	14,547
November	1,203	11/29/2012	8	1,162	17,525	11/29/2012	8	17,011
December	1,213	12/13/2012	8	1,318	17,560	12/21/2012	18	18,696

Kentucky Power Company and AEP System-East Zone
 Actual Peak System Demand (MW)
 2012

Month	Kentucky Power Company			AEP System-East Zone		
	Peak	Peak Day	Peak Hour	Peak	Peak Day	Peak Hour
January	1,453	1/4/2012	8	21,139	1/3/2012	19
February	1,419	2/13/2012	8	20,422	2/13/2012	8
March	1,326	3/6/2012	8	19,299	3/6/2012	8
April	1,151	4/12/2012	7	17,398	4/12/2012	7
May	1,137	5/3/2012	13	19,445	5/28/2012	16
June	1,258	6/29/2012	15	22,881	6/28/2012	17
July	1,282	7/26/2012	14	22,987	7/17/2012	13
August	1,224	8/8/2012	16	22,363	8/2/2012	17
September	1,112	9/5/2012	16	20,407	9/6/2012	16
October	1,106	10/29/2012	19	17,595	10/29/2012	19
November	1,266	11/29/2012	8	18,985	11/29/2012	8
December	1,264	12/13/2012	8	18,721	12/13/2012	8

Kentucky Power Company

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 competed calendar year. Please provide the information for both Kentucky Power Company individually and the AEP-East Power Pool (pursuant to the Commission's December 13, 2004 Order in the Rockport UPSA extension, Case No. 2004-00420).

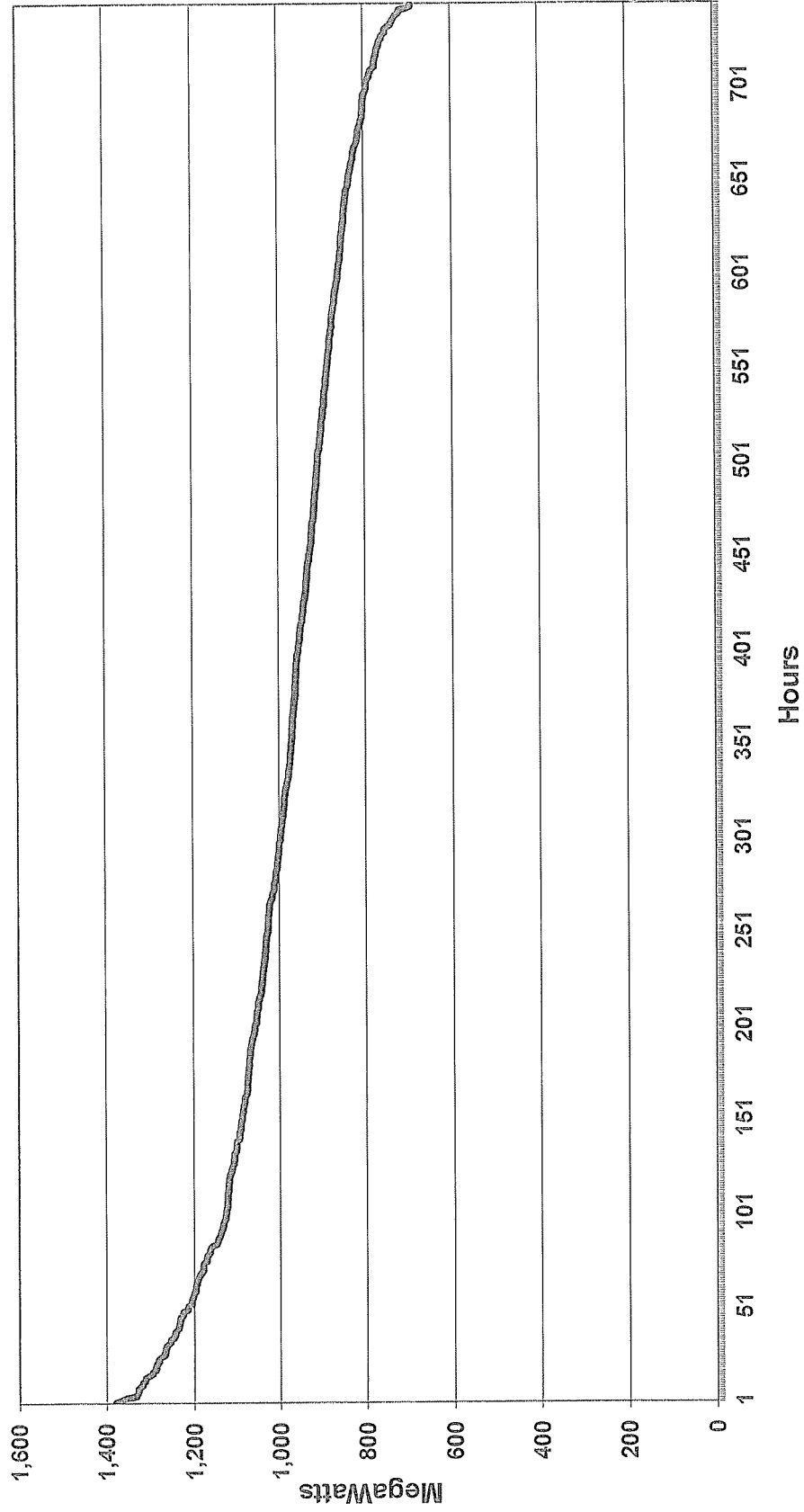
RESPONSE

Pages 1 through 12 provide 2012 monthly load duration curves for Kentucky Power Company's internal load. Pages 13 through 24 provide 2012 monthly load duration curves for Kentucky Power Company's system load. Pages 25 through 36 provide 2012 monthly load duration curves for AEP System-East's internal load. Pages 37 through 48 provide 2012 monthly load duration curves for AEP System-East's system load. The system load, for both Kentucky Power Company and AEP System-East, includes internal load and off-system sales.

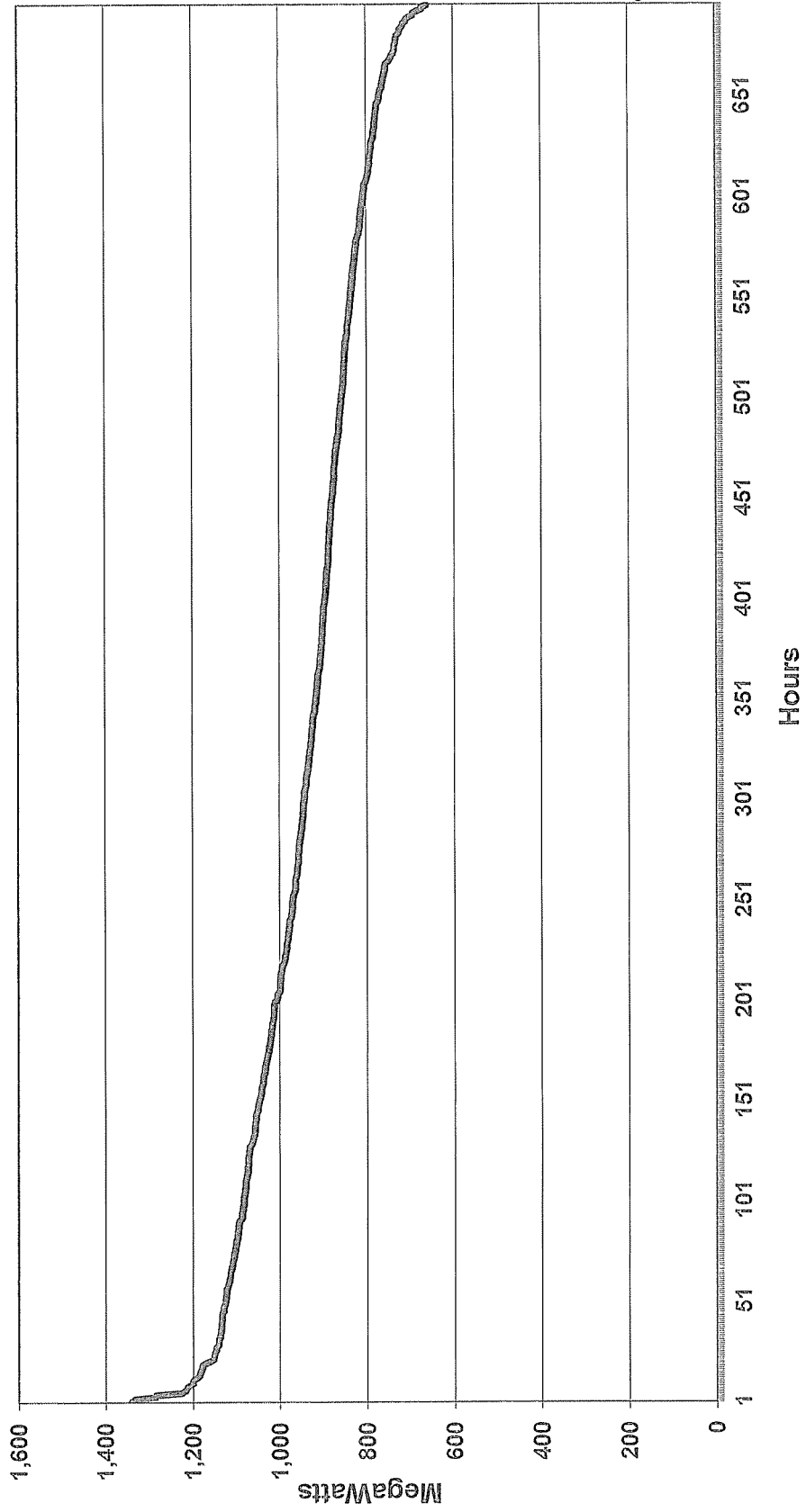
Weather-normalized monthly internal peaks for Kentucky Power Company and AEP System-East are provided on Page 1 of Attachment 1 to the response to Item No. 1. Weather normalized system peaks have not been developed and therefore, are not available.

WITNESS: Lila P Munsey

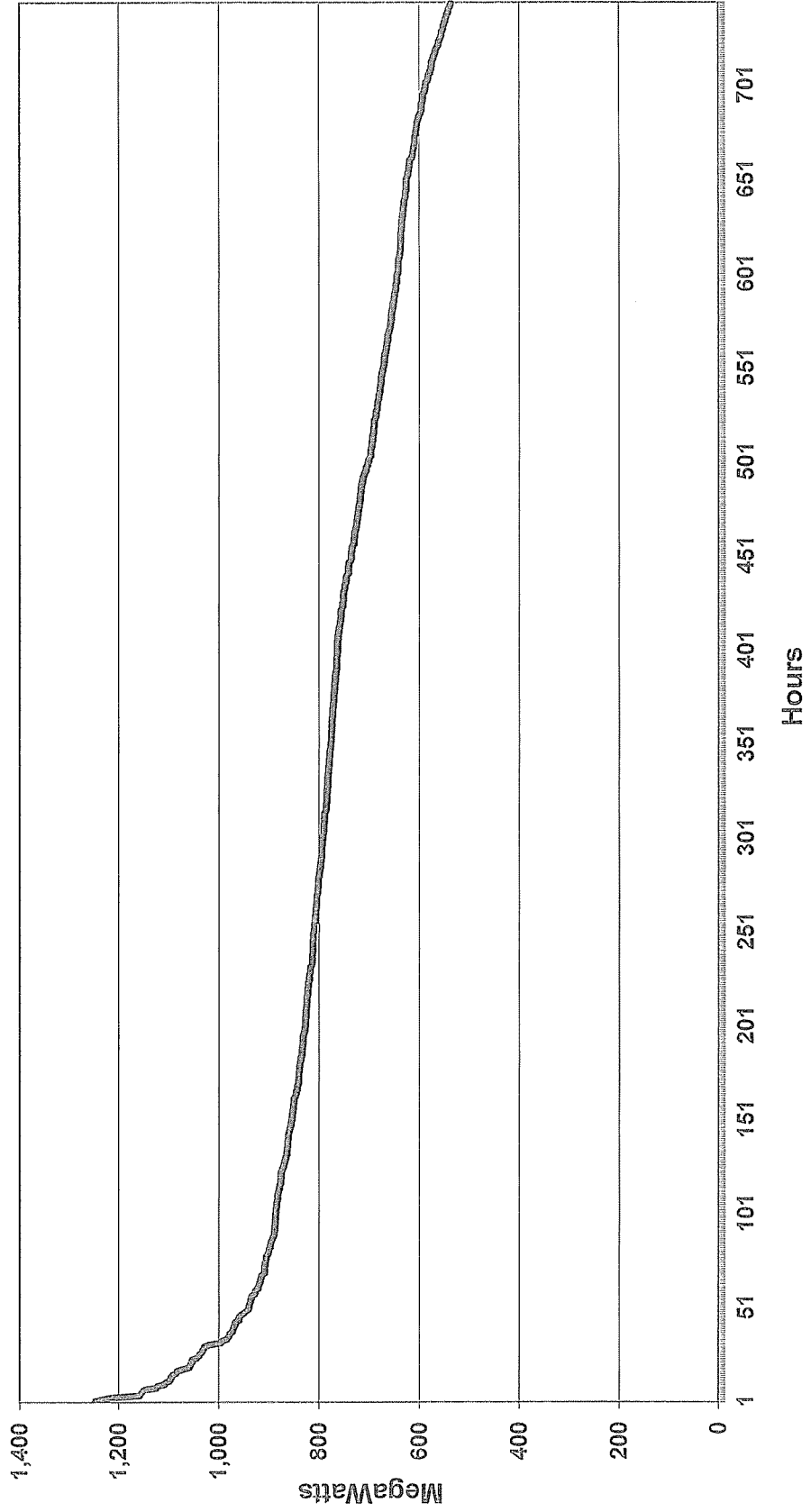
Kentucky Power Company January 2012 Load Duration Curve (Internal Load)



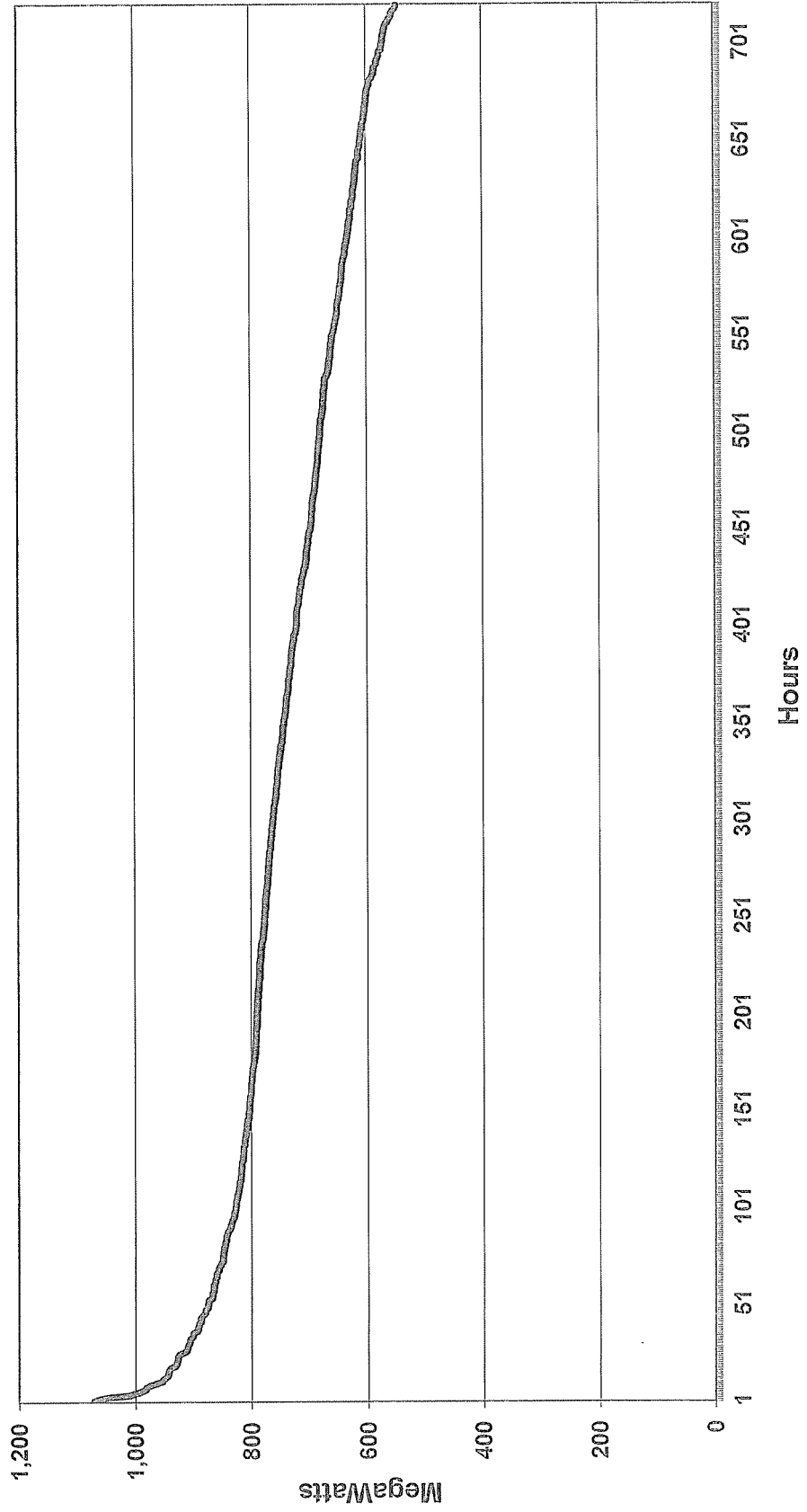
**Kentucky Power Company
February 2012 Load Duration Curve
(Internal Load)**



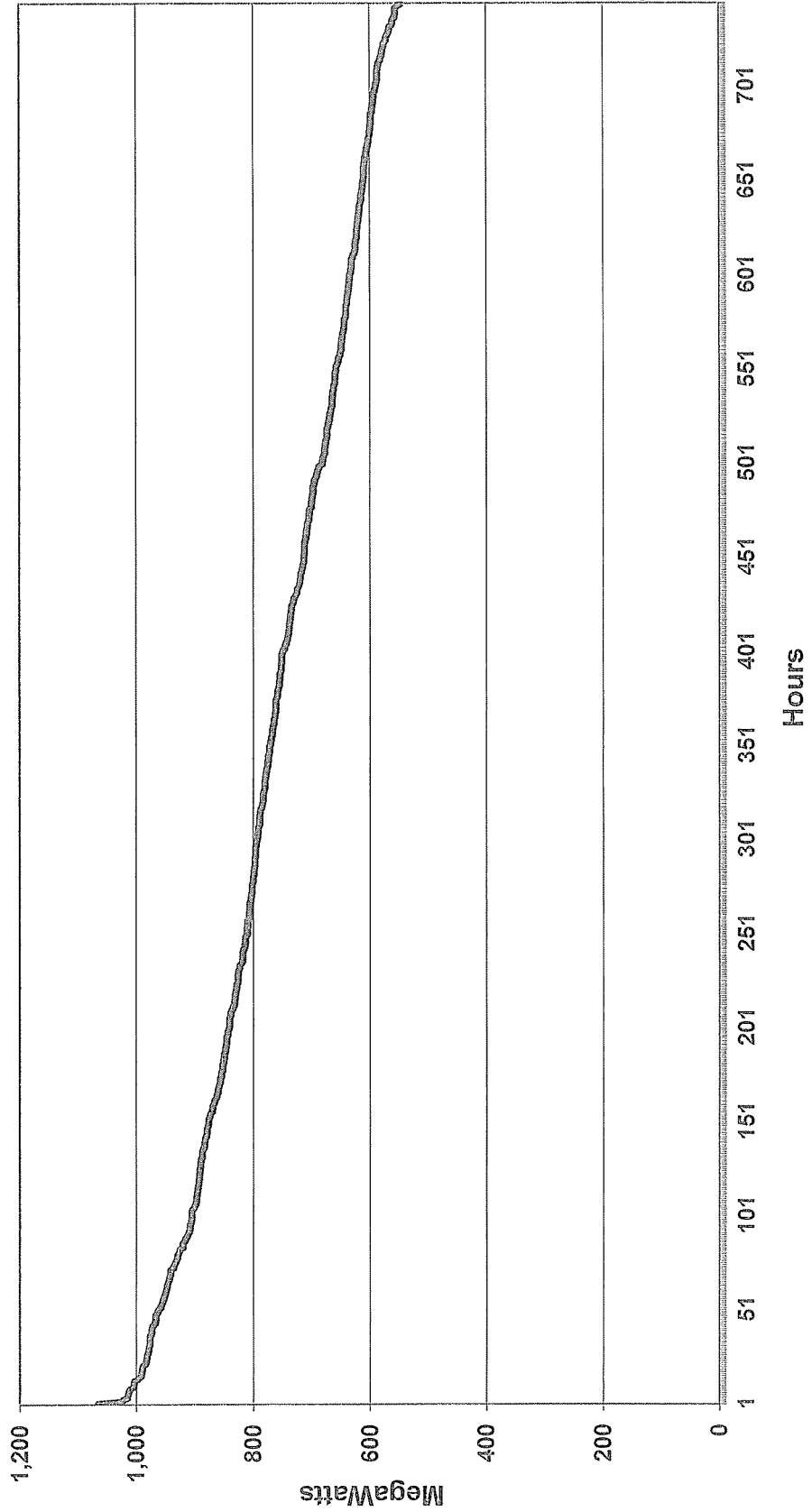
**Kentucky Power Company
March 2012 Load Duration Curve
(Internal Load)**



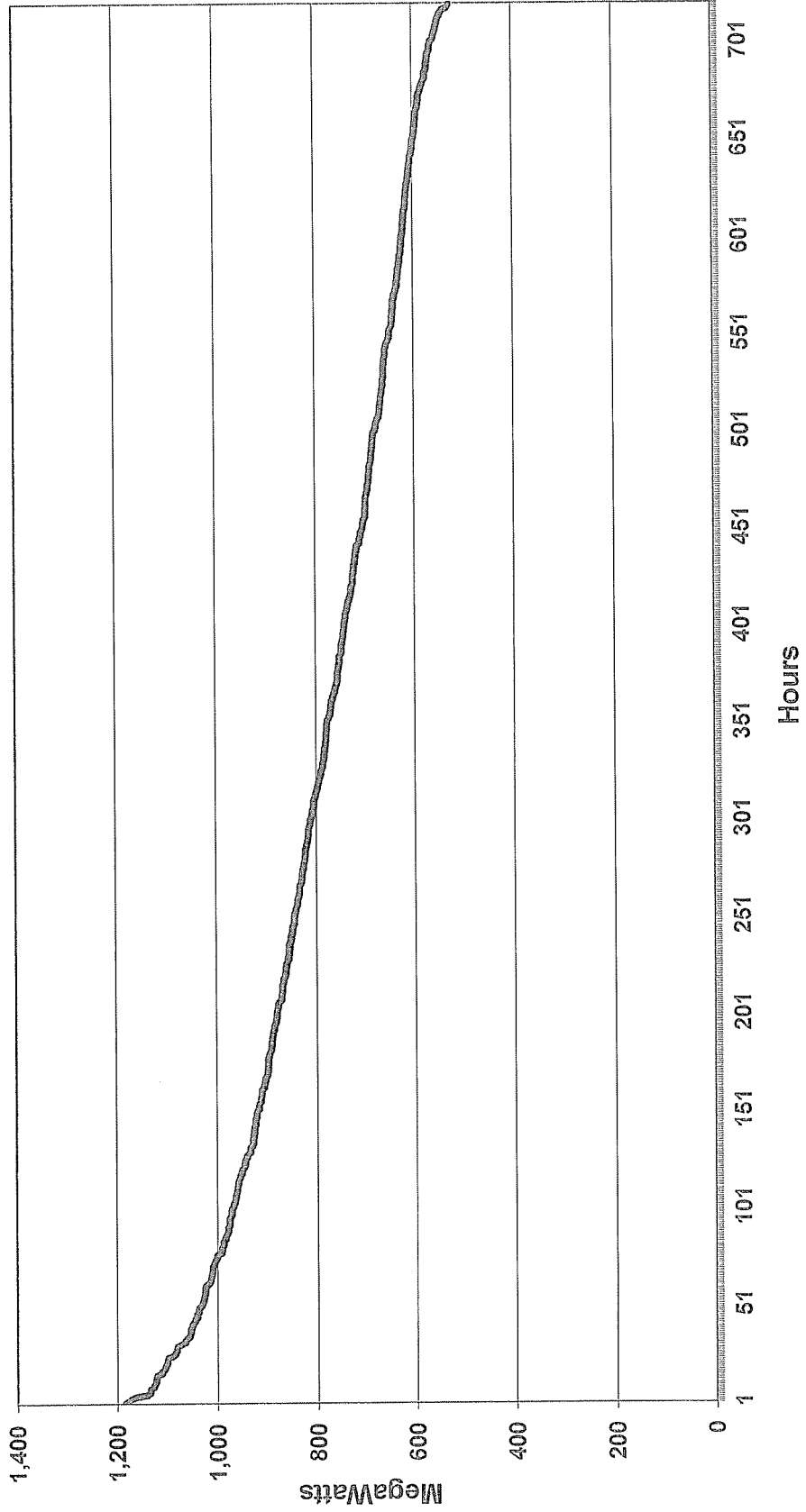
Kentucky Power Company
April 2012 Load Duration Curve
(Internal Load)



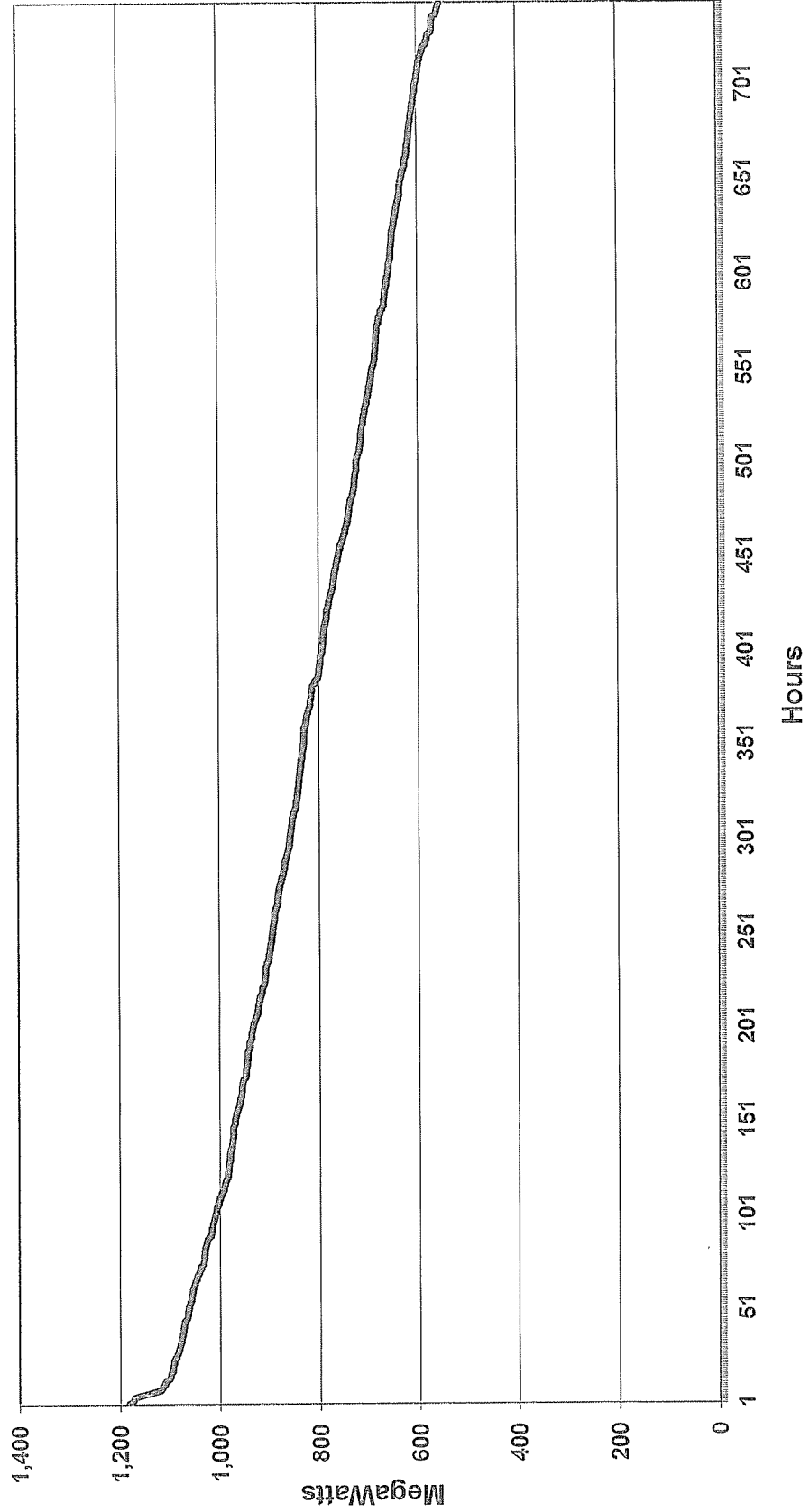
Kentucky Power Company
May 2012 Load Duration Curve
(Internal Load)



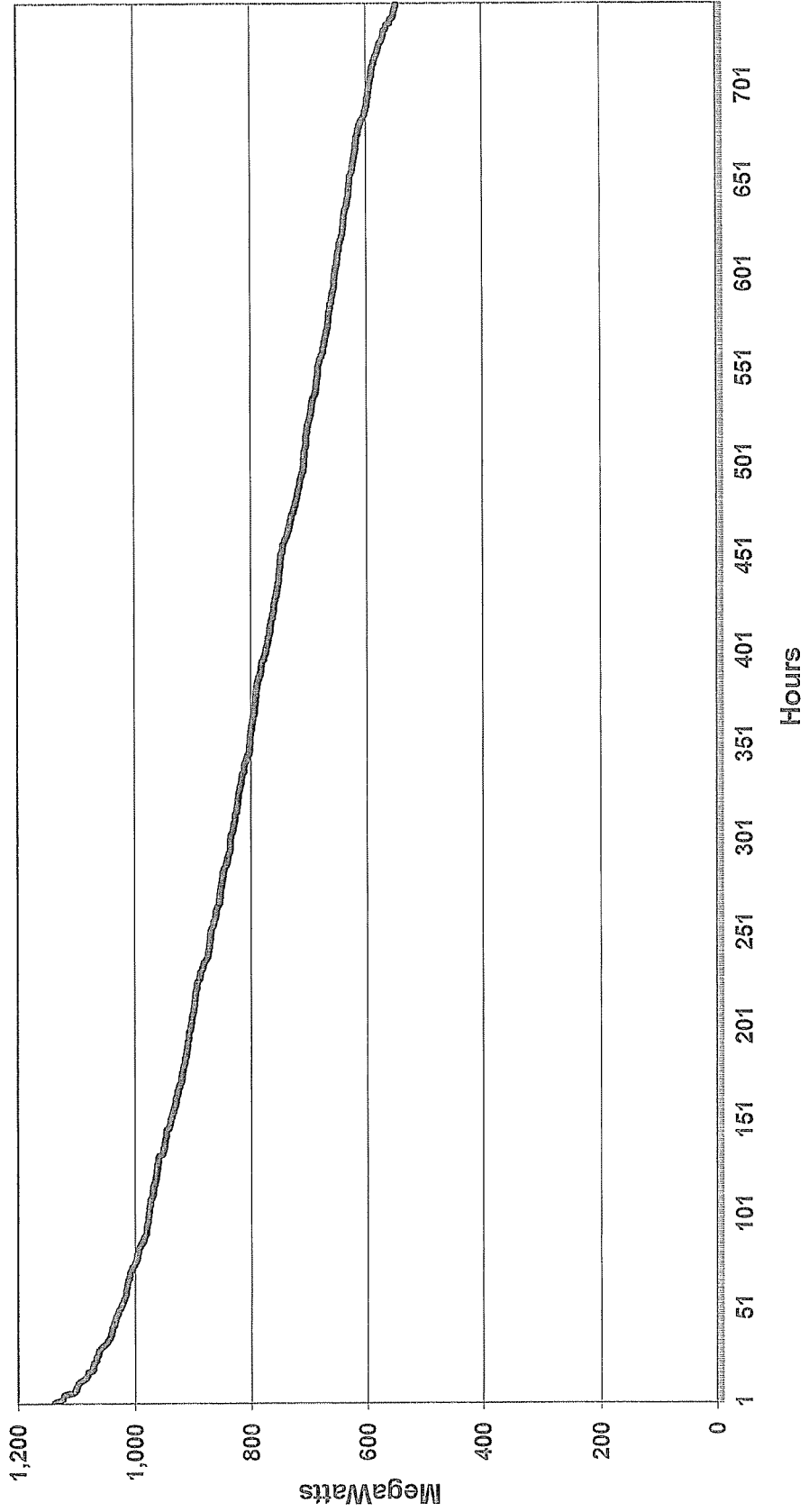
Kentucky Power Company June 2012 Load Duration Curve (Internal Load)



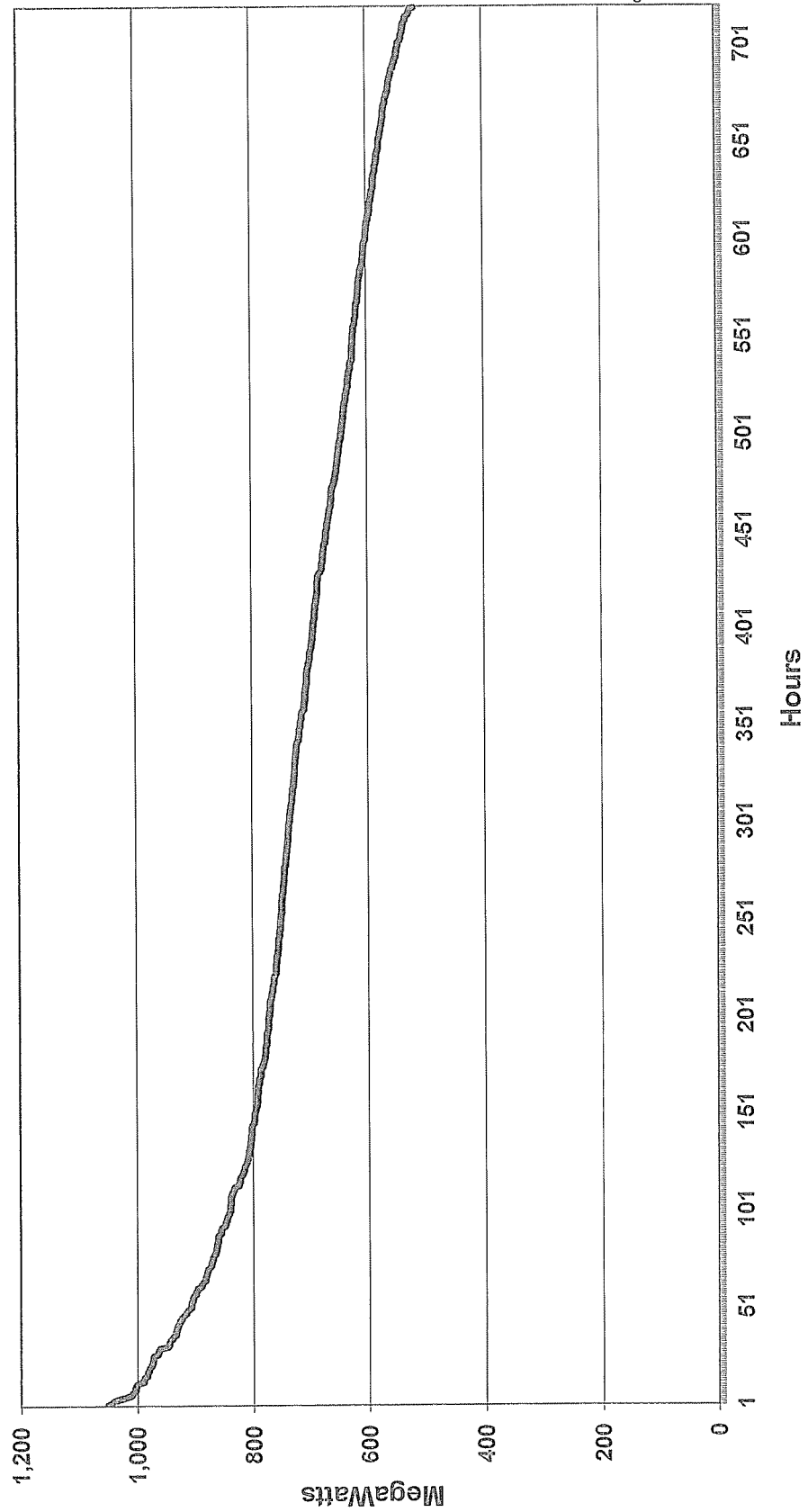
Kentucky Power Company July 2012 Load Duration Curve (Internal Load)



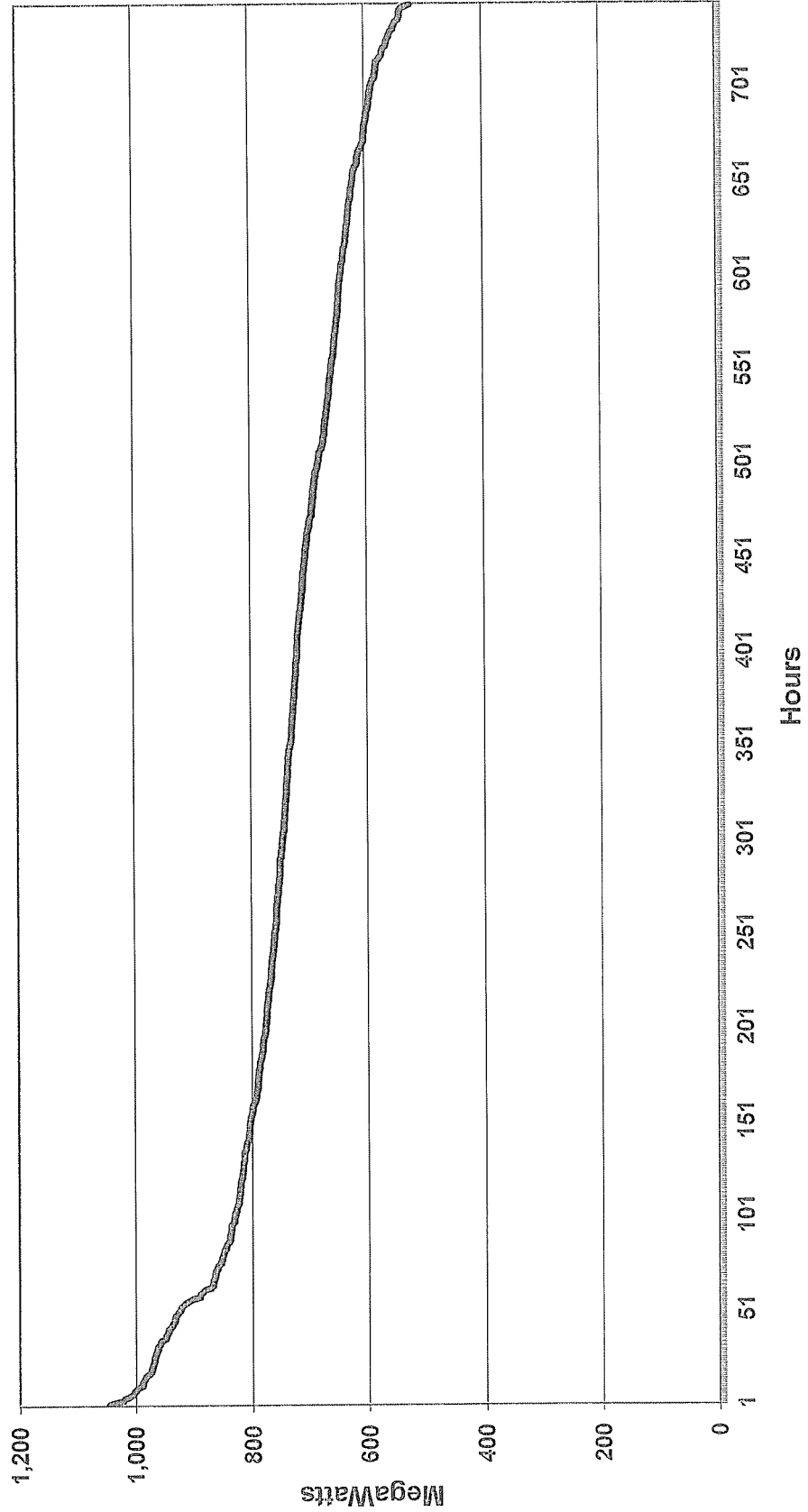
**Kentucky Power Company
August 2012 Load Duration Curve
(Internal Load)**



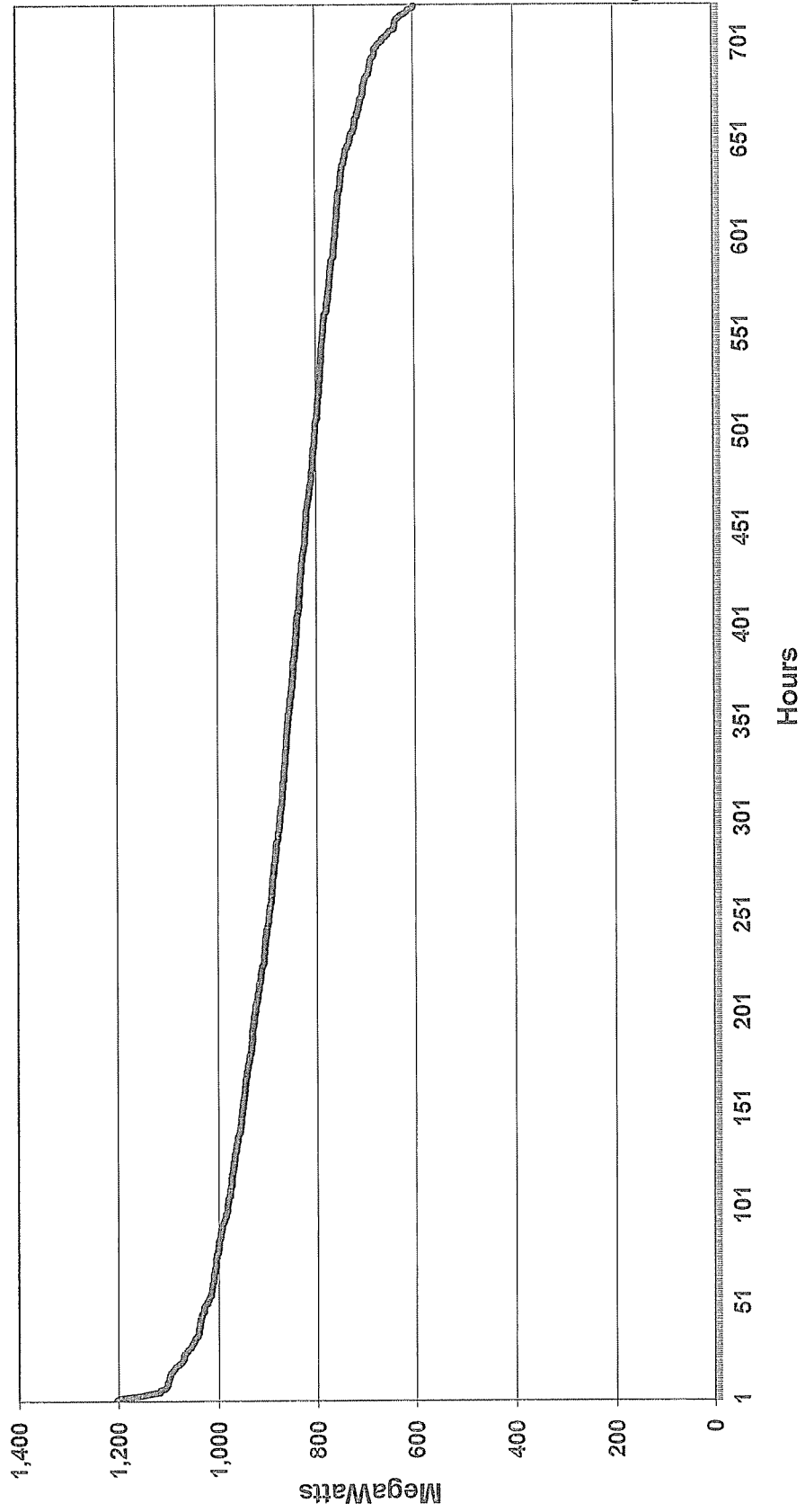
Kentucky Power Company September 2012 Load Duration Curve (Internal Load)



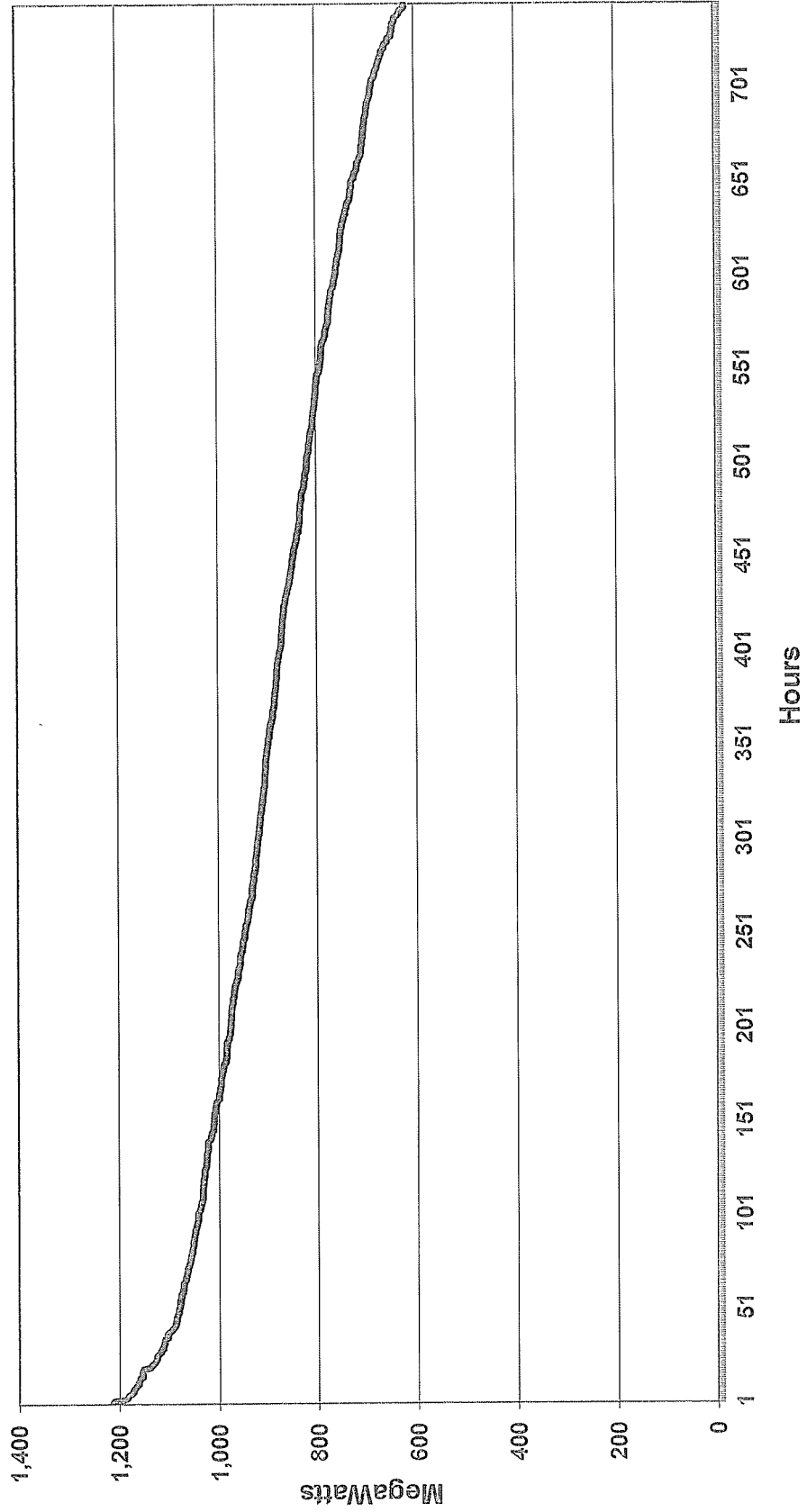
Kentucky Power Company October 2012 Load Duration Curve (Internal Load)



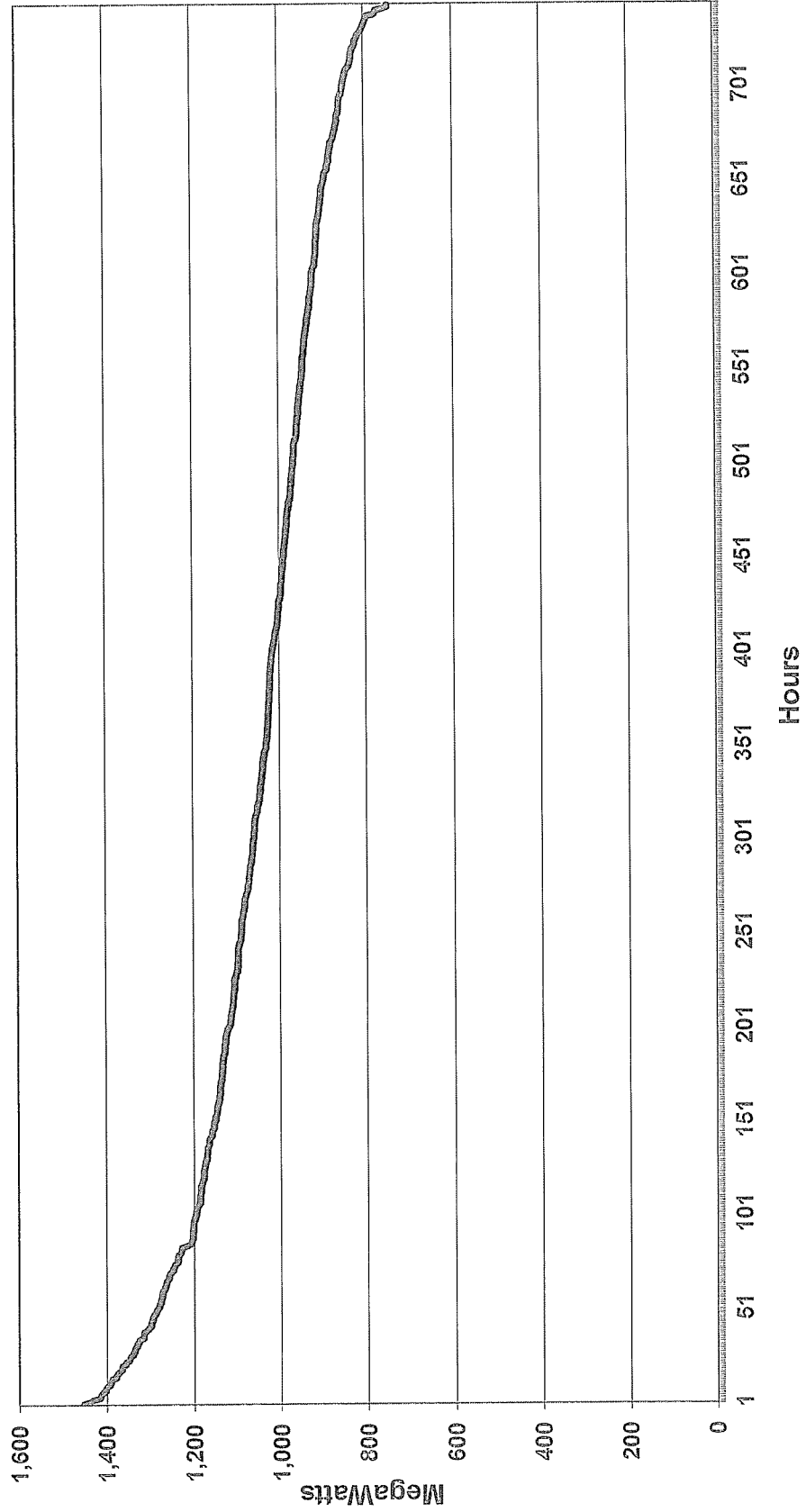
**Kentucky Power Company
November 2012 Load Duration Curve
(Internal Load)**



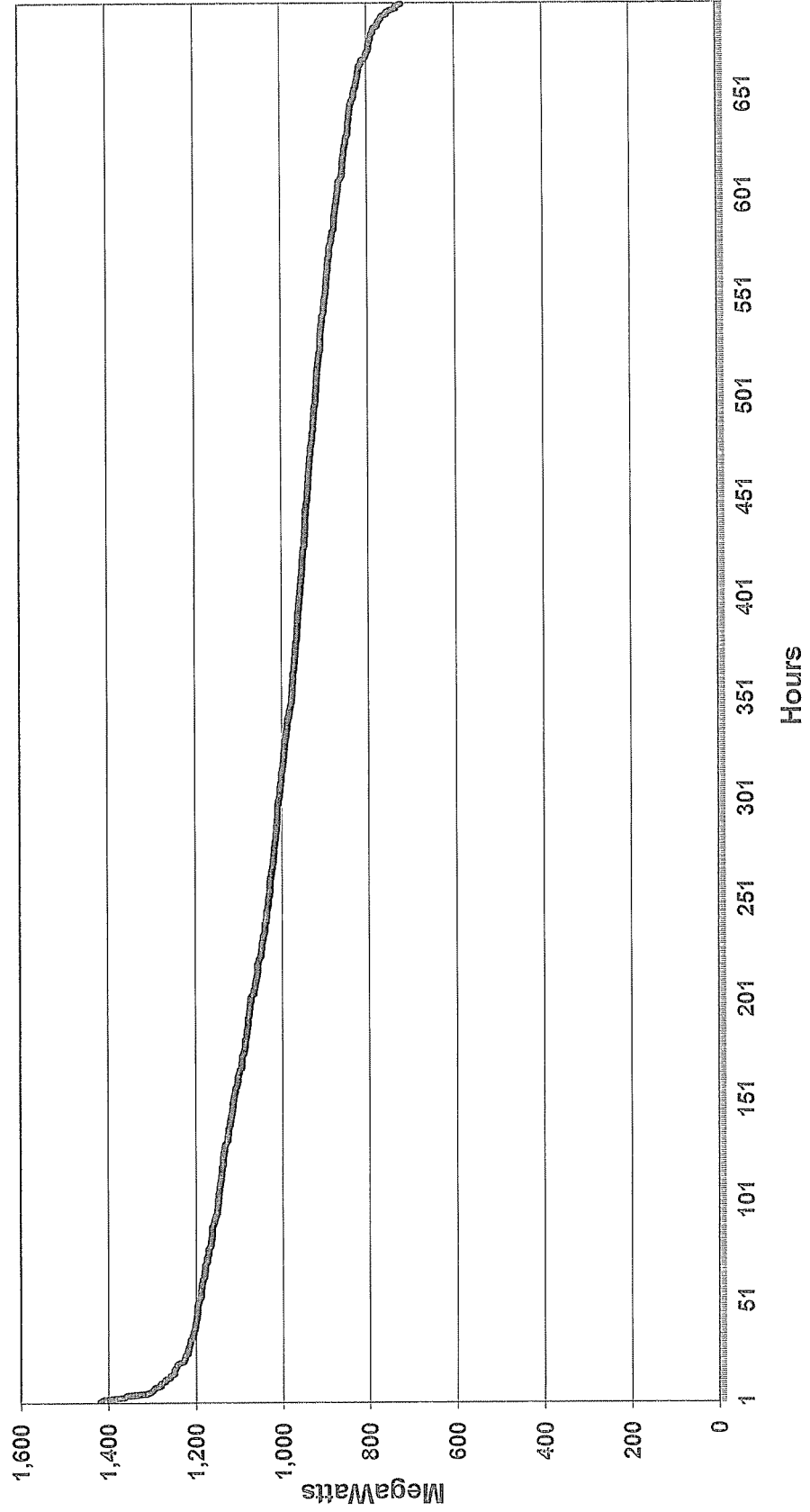
Kentucky Power Company
December 2012 Load Duration Curve
(Internal Load)



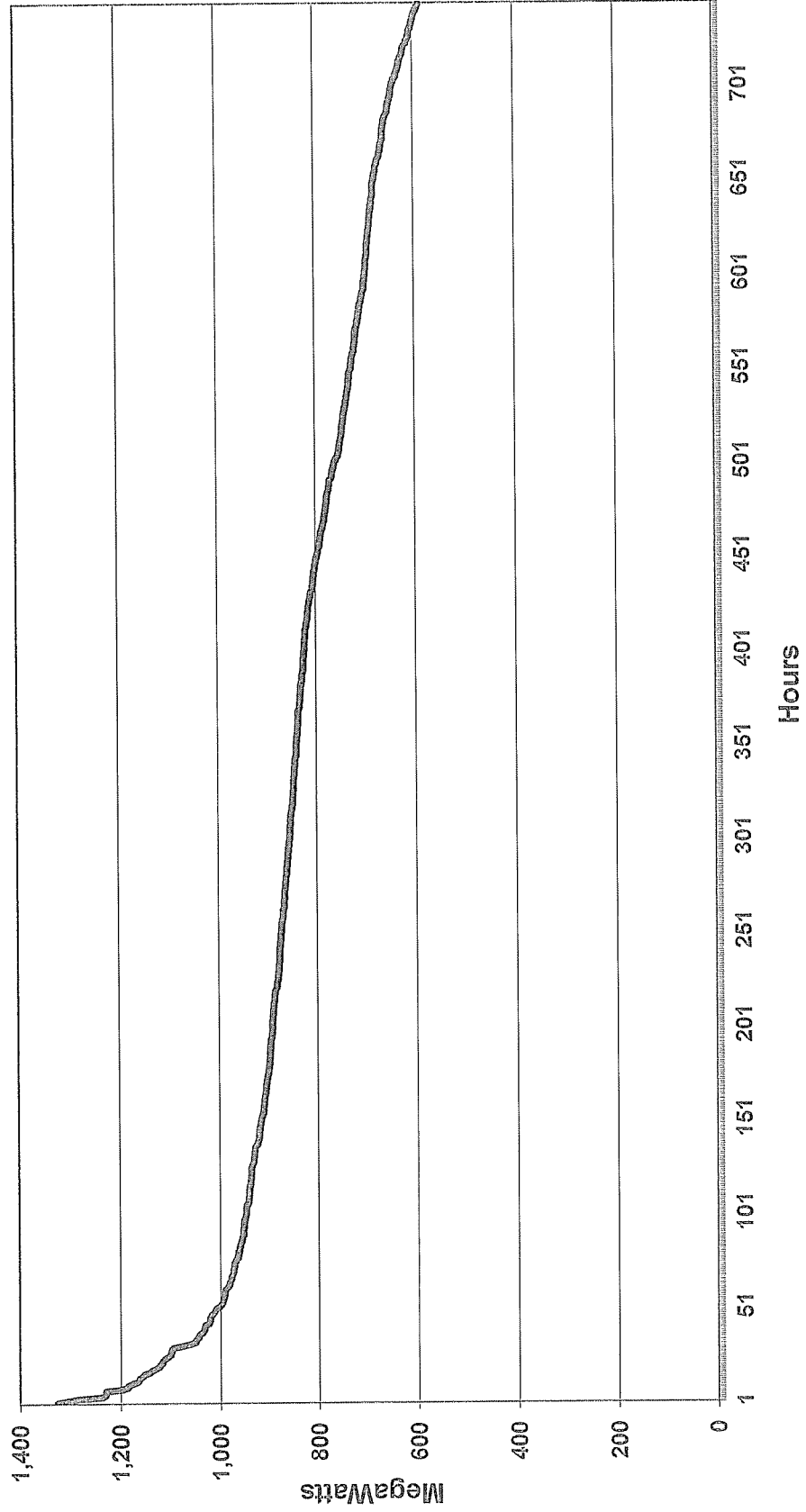
Kentucky Power Company
January 2012 Load Duration Curve
(System Load)



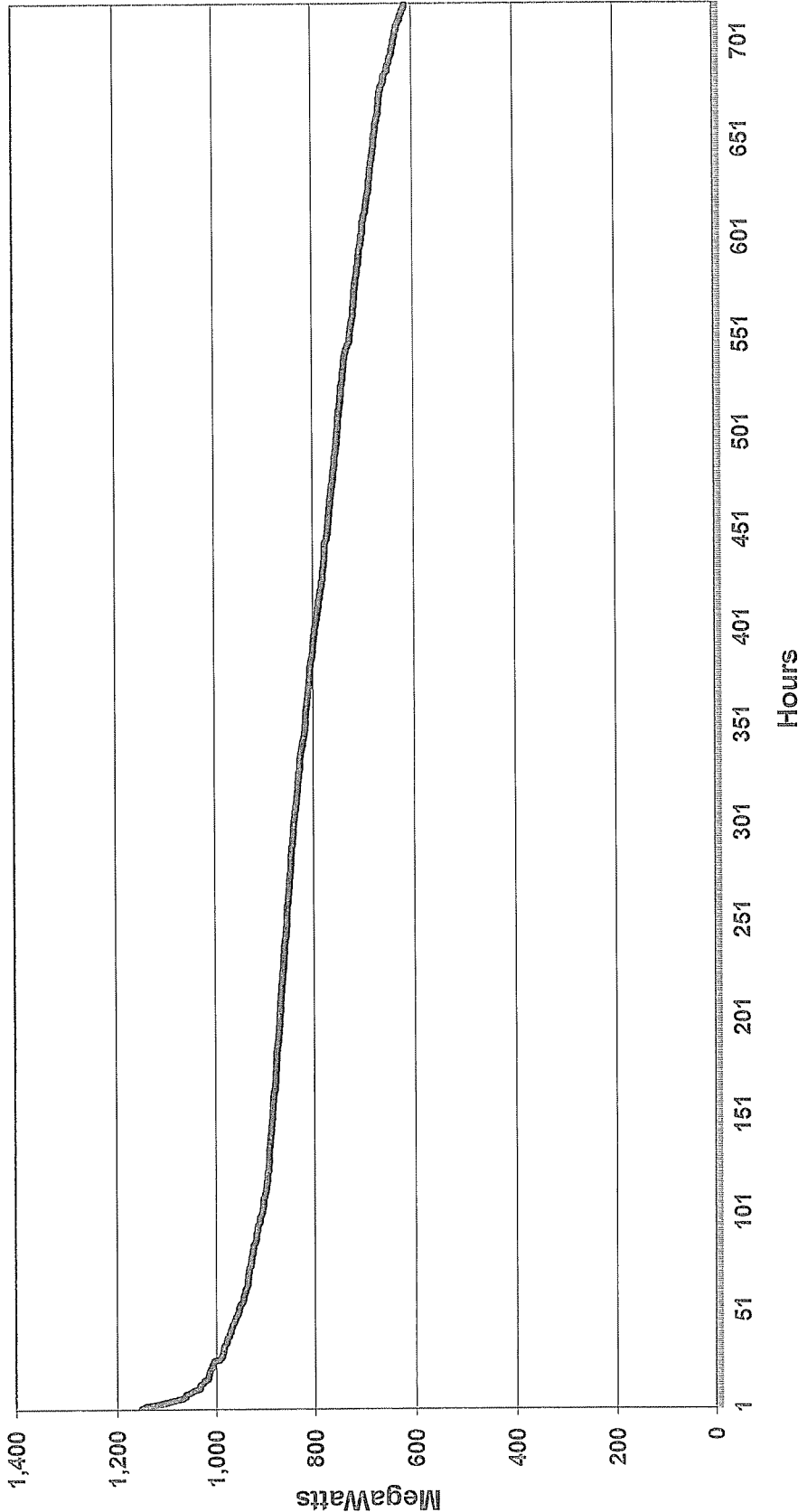
Kentucky Power Company
February 2012 Load Duration Curve
(System Load)



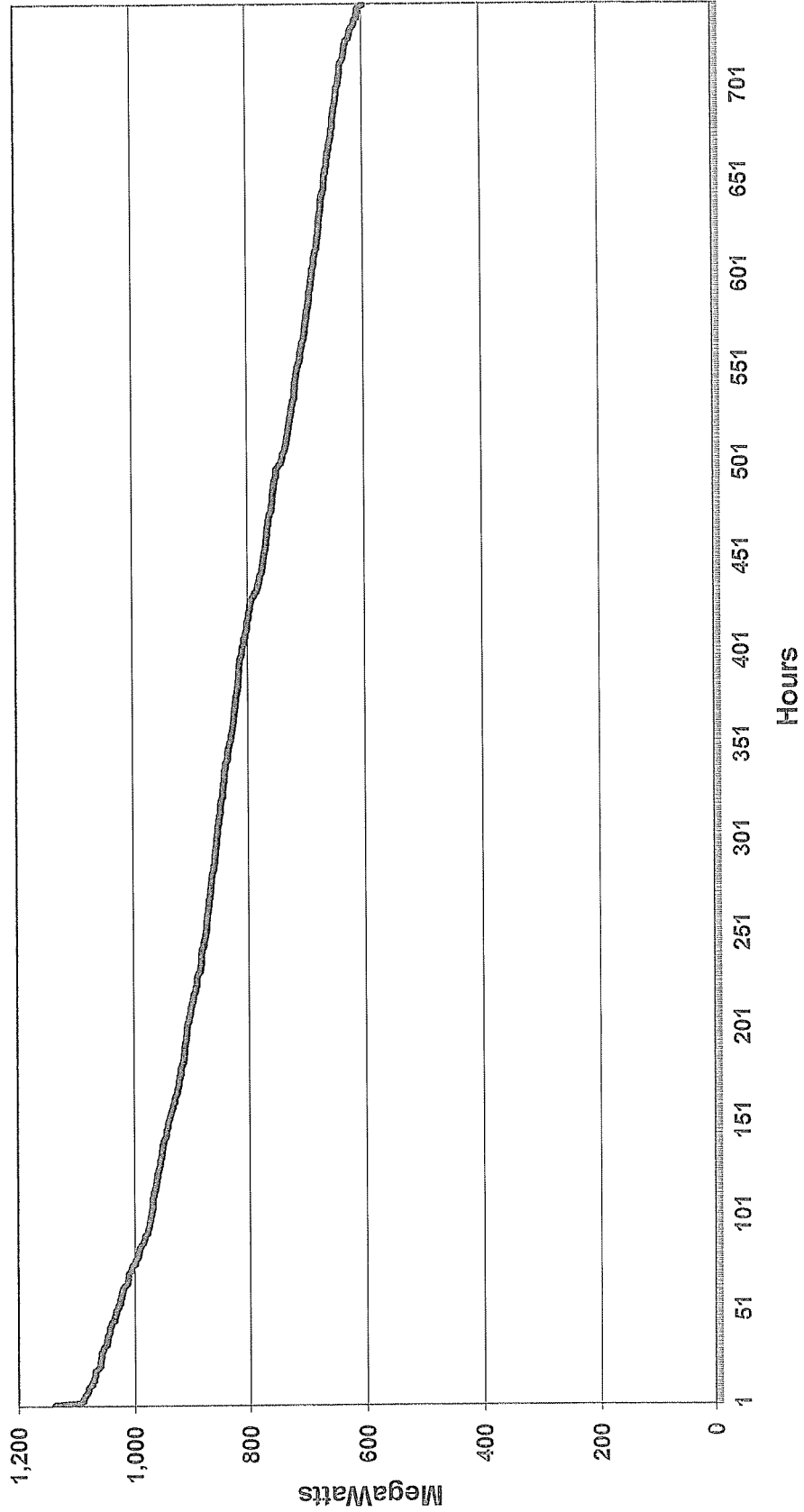
**Kentucky Power Company
March 2012 Load Duration Curve
(System Load)**



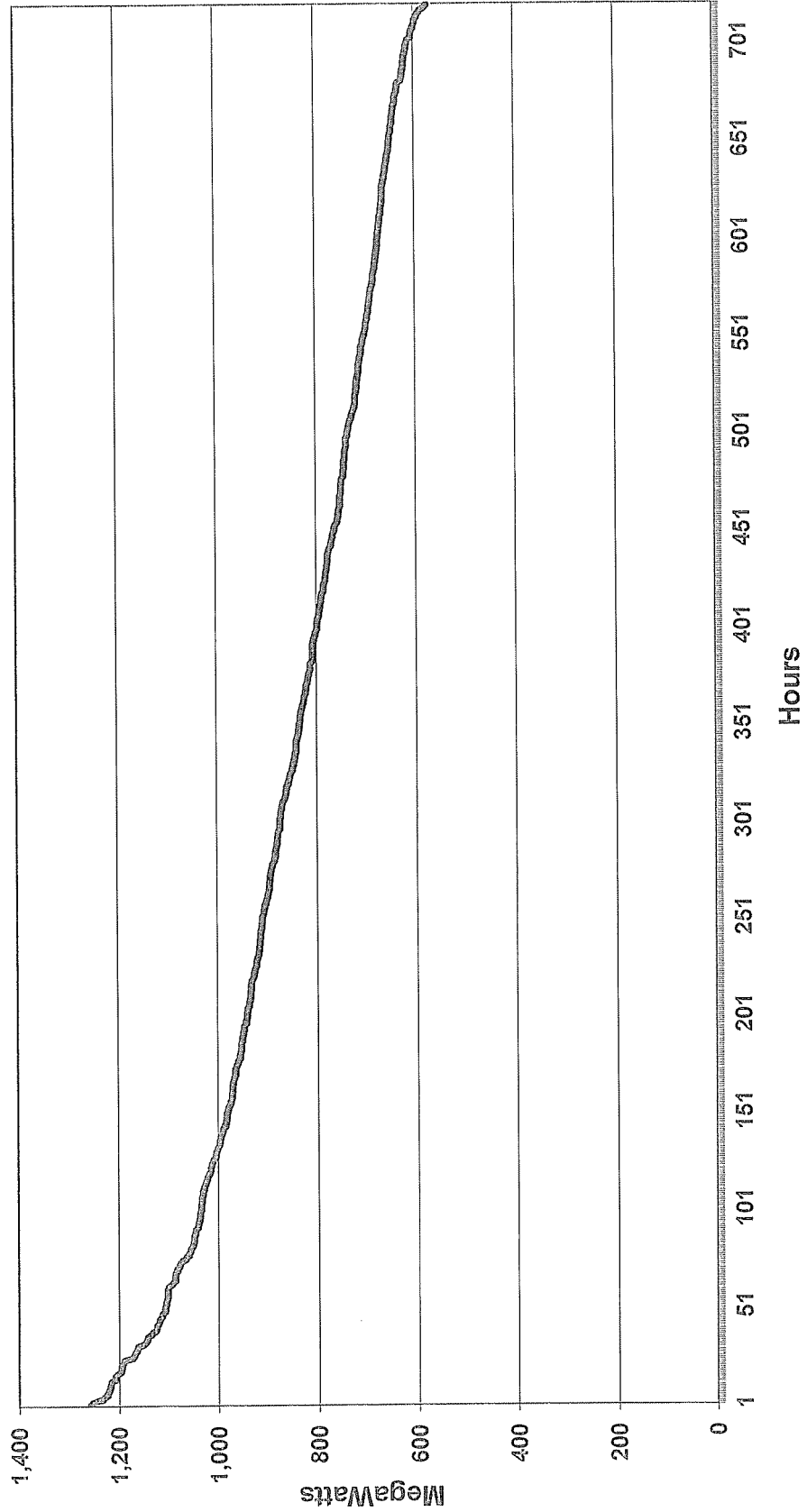
Kentucky Power Company
April 2012 Load Duration Curve
(System Load)



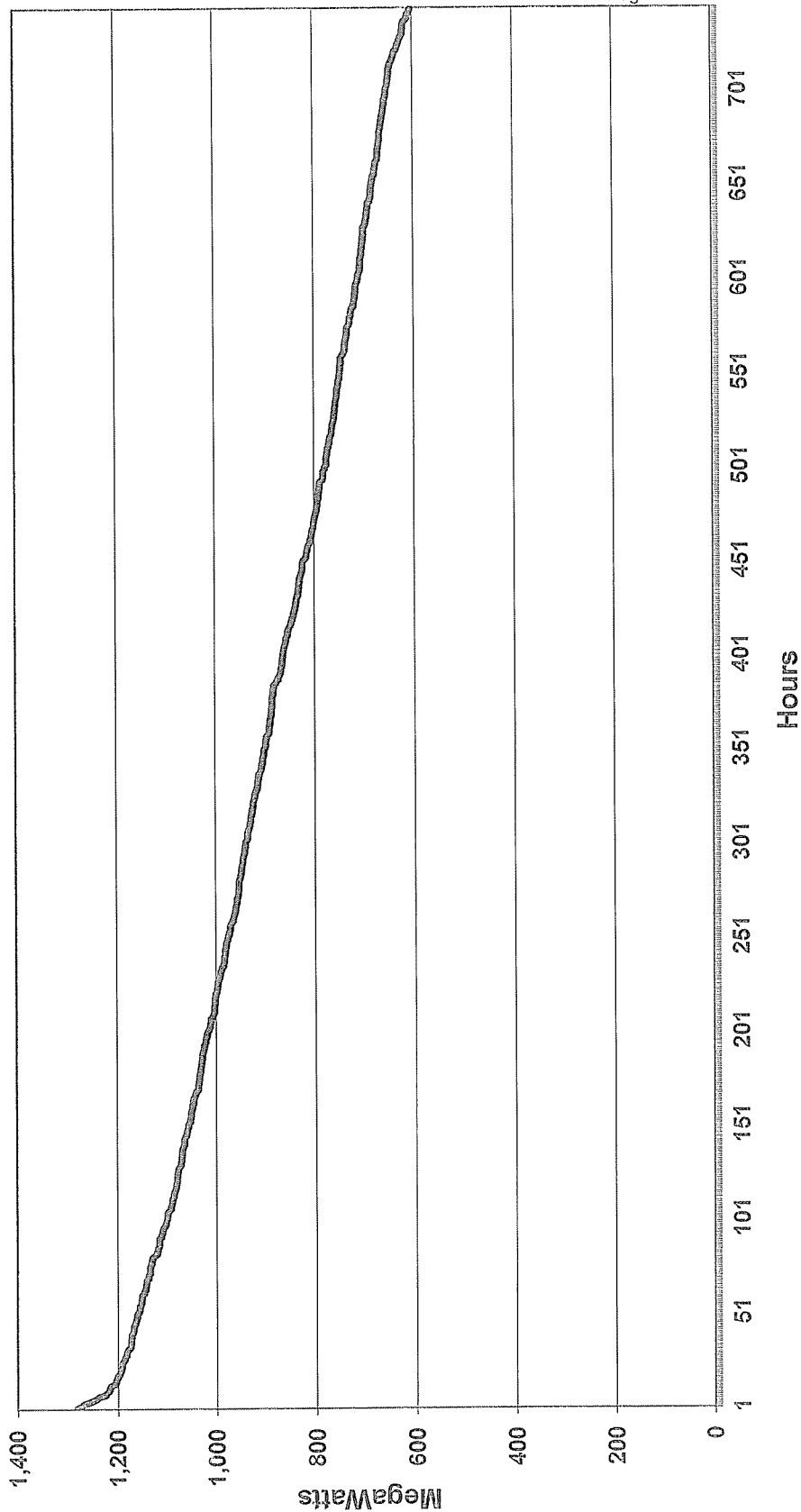
Kentucky Power Company
May 2012 Load Duration Curve
(System Load)



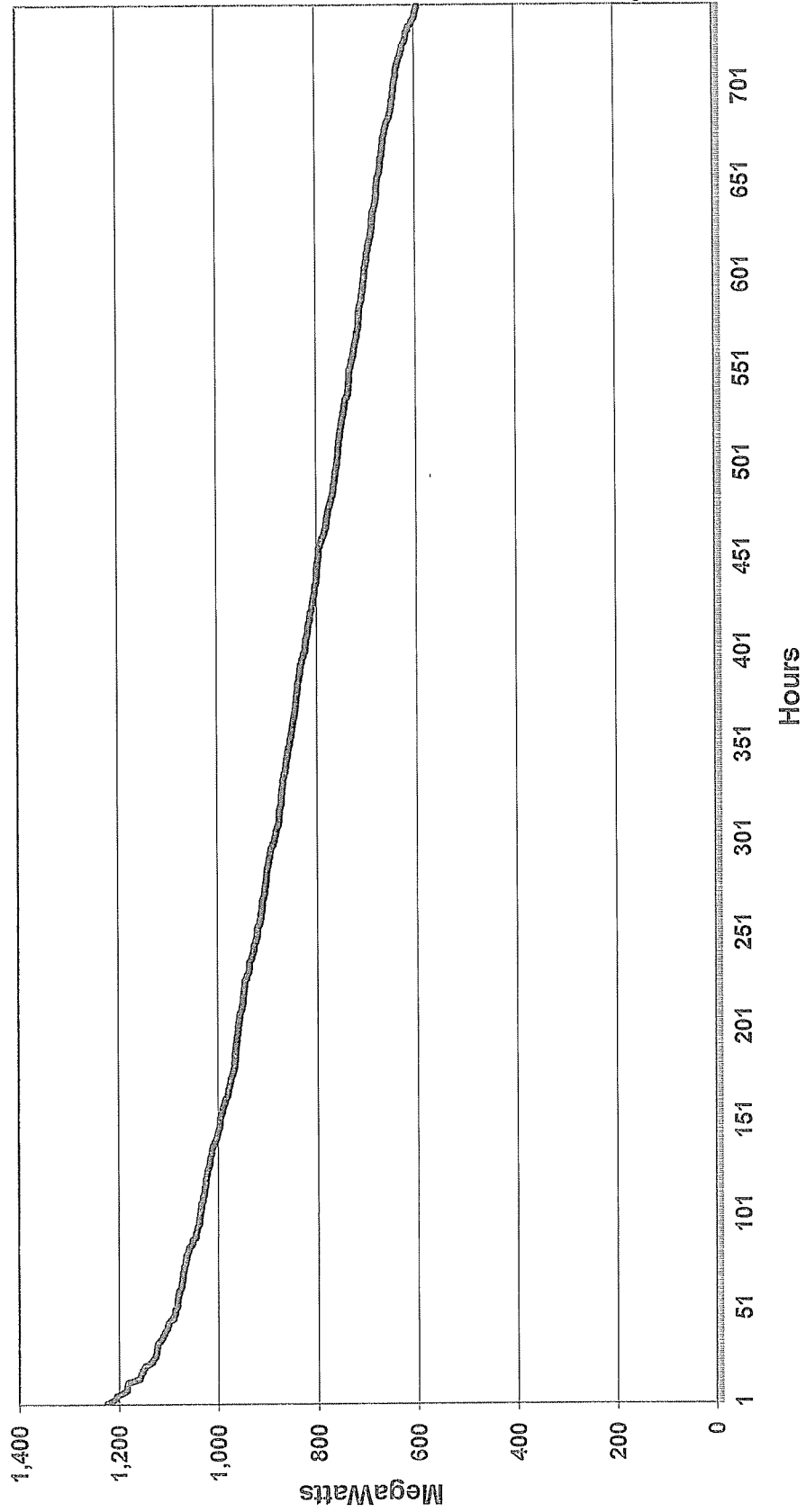
Kentucky Power Company
June 2012 Load Duration Curve
(System Load)



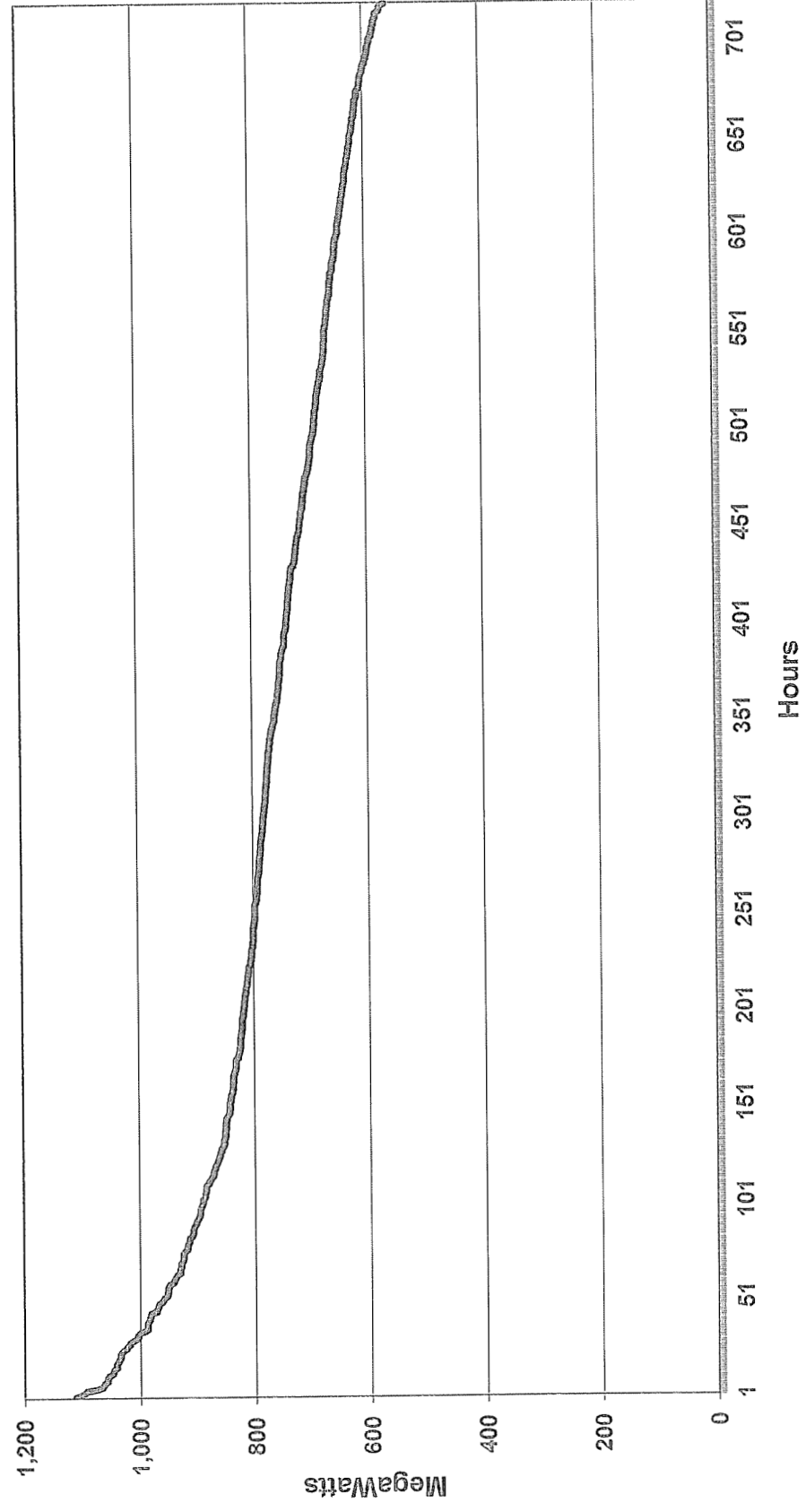
Kentucky Power Company
July 2012 Load Duration Curve
(System Load)



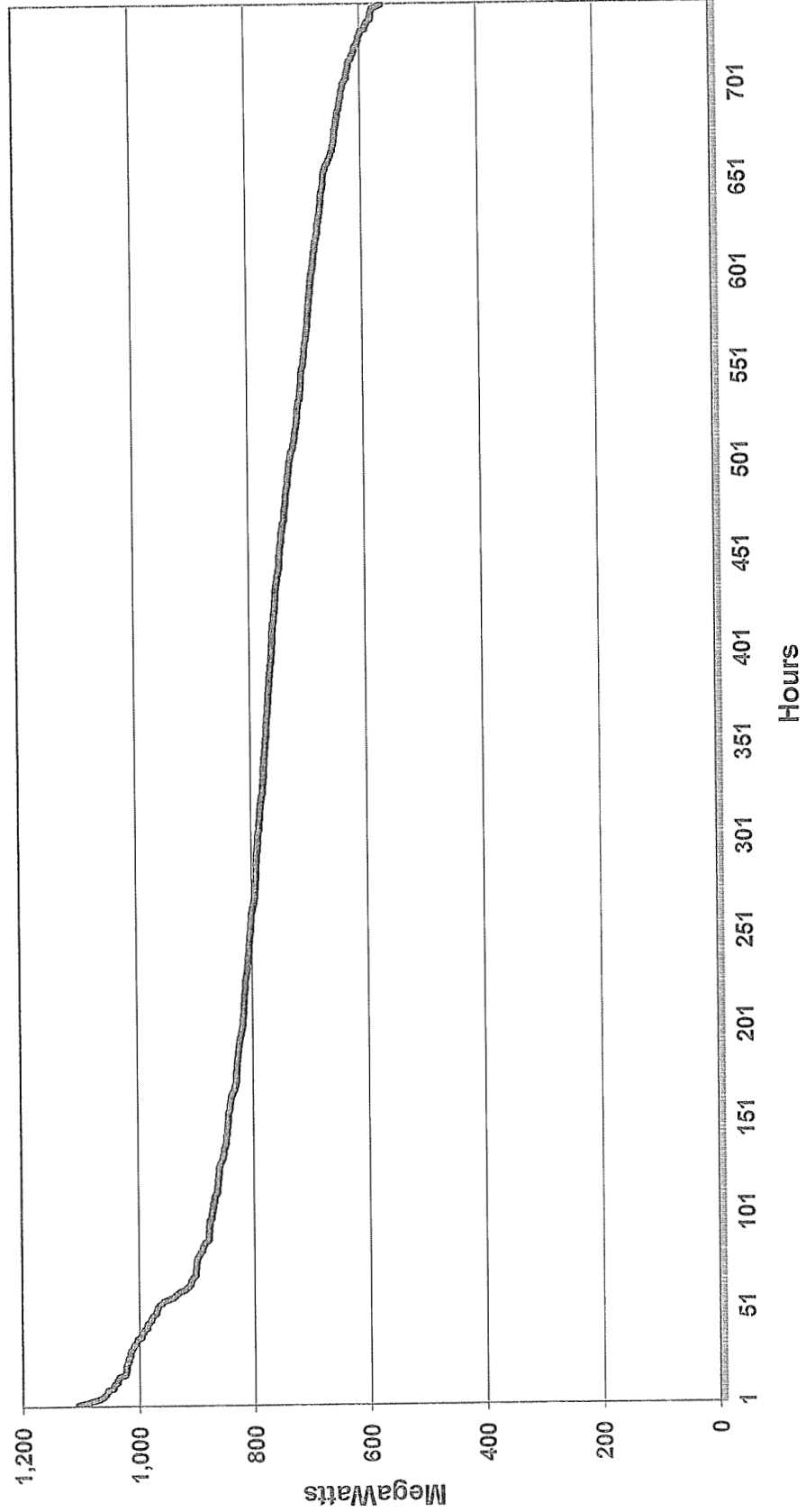
**Kentucky Power Company
August 2012 Load Duration Curve
(System Load)**



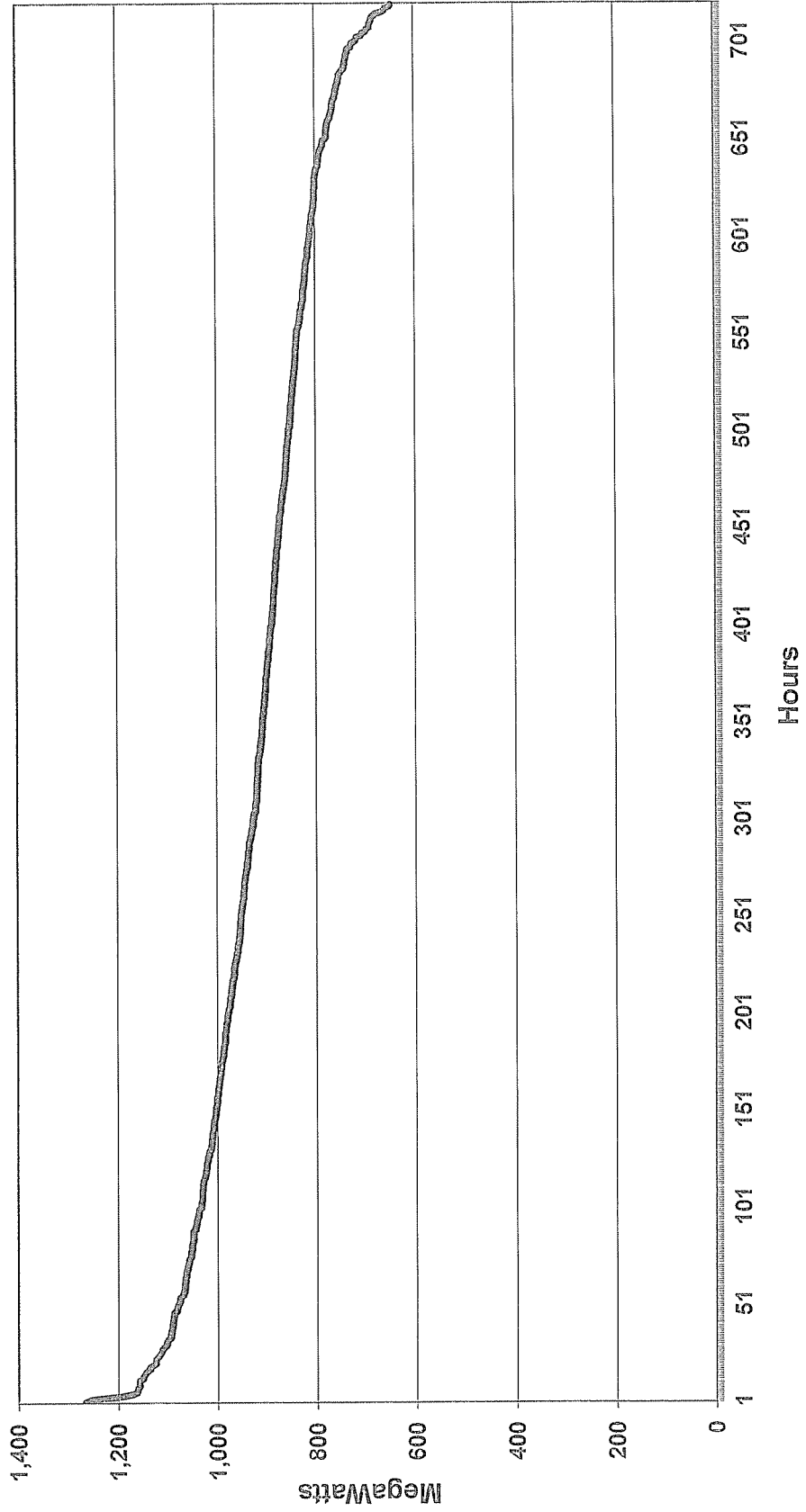
**Kentucky Power Company
September 2012 Load Duration Curve
(System Load)**



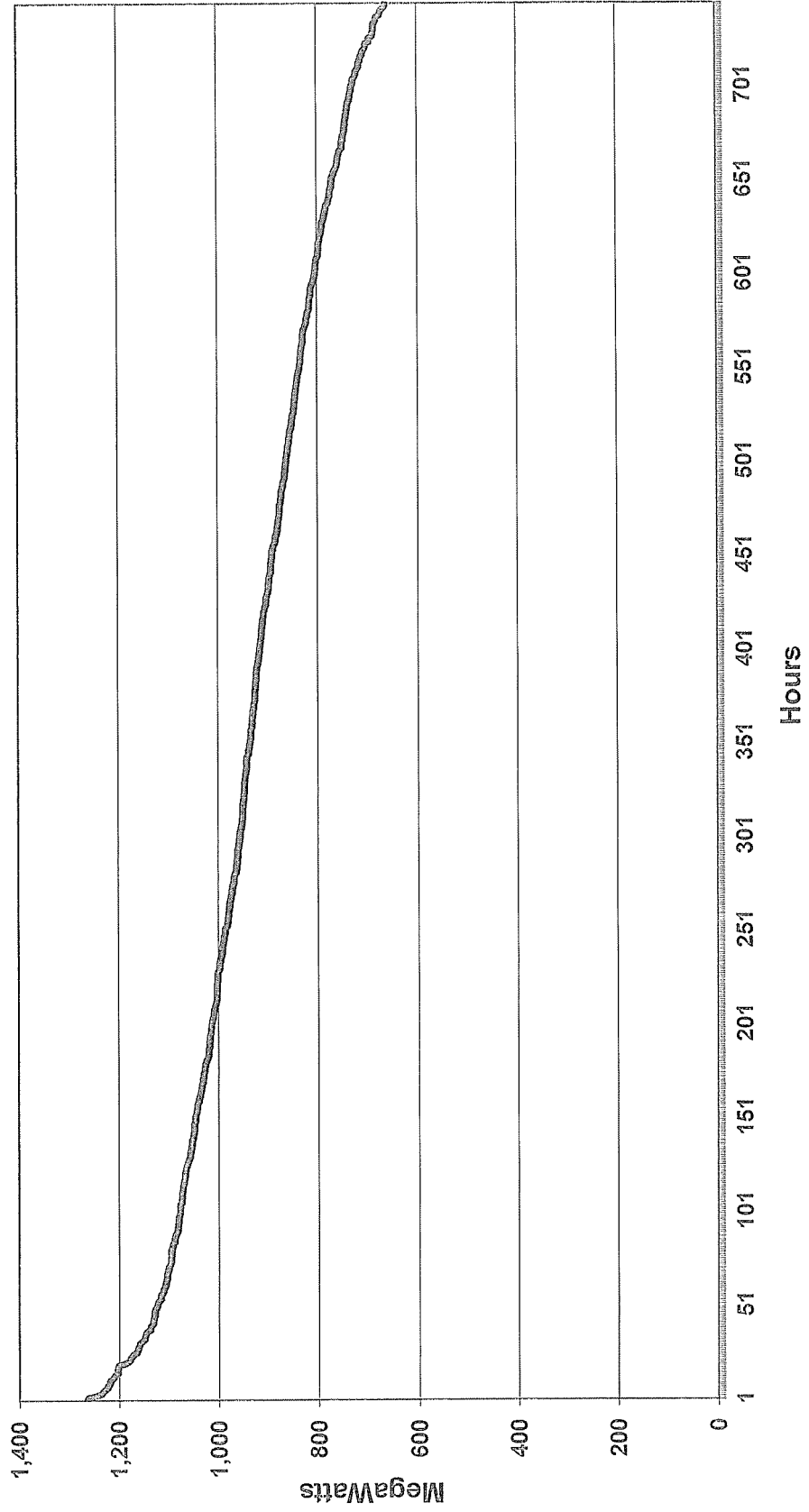
Kentucky Power Company October 2012 Load Duration Curve (System Load)



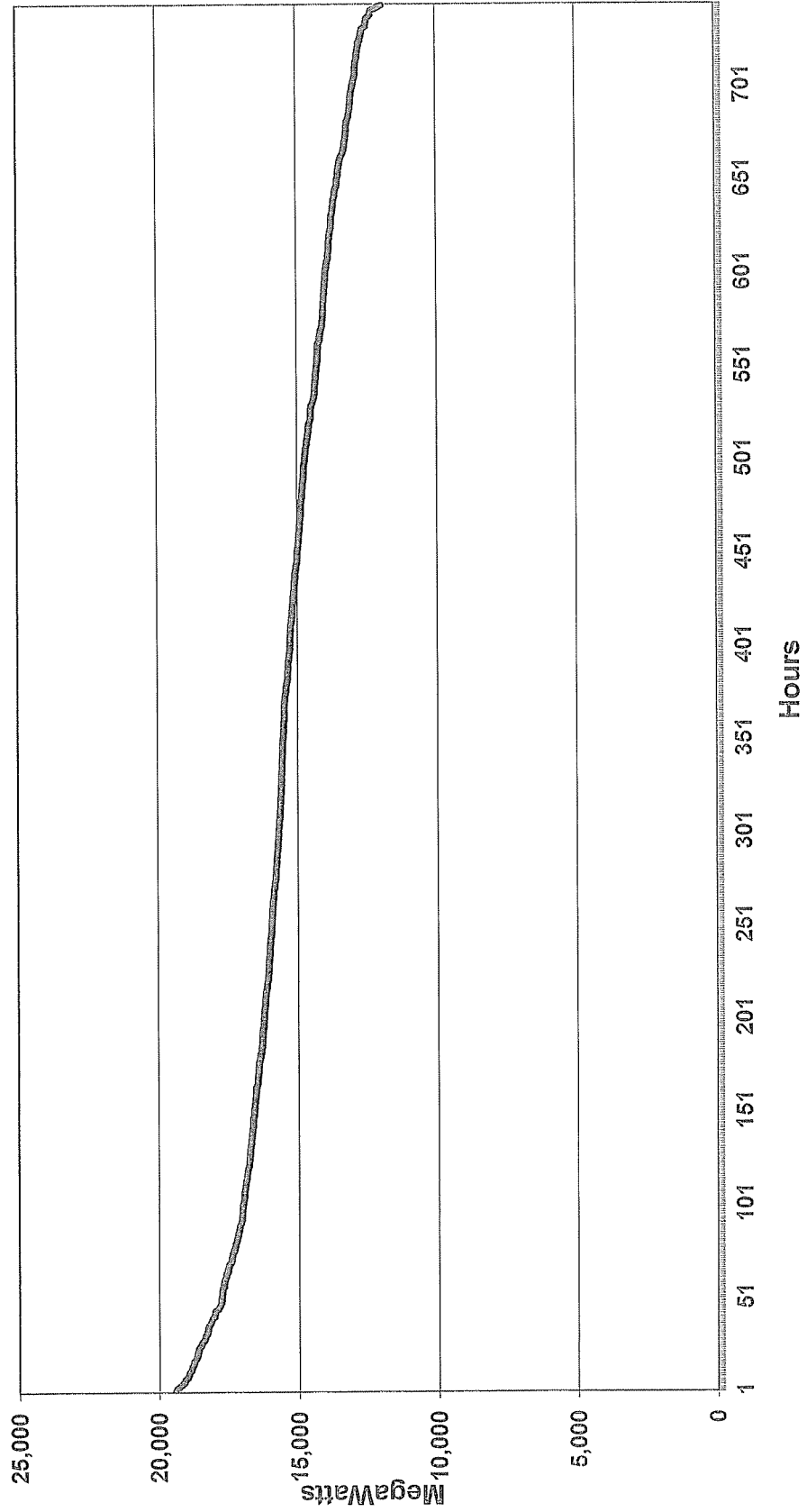
Kentucky Power Company
November 2012 Load Duration Curve
(System Load)



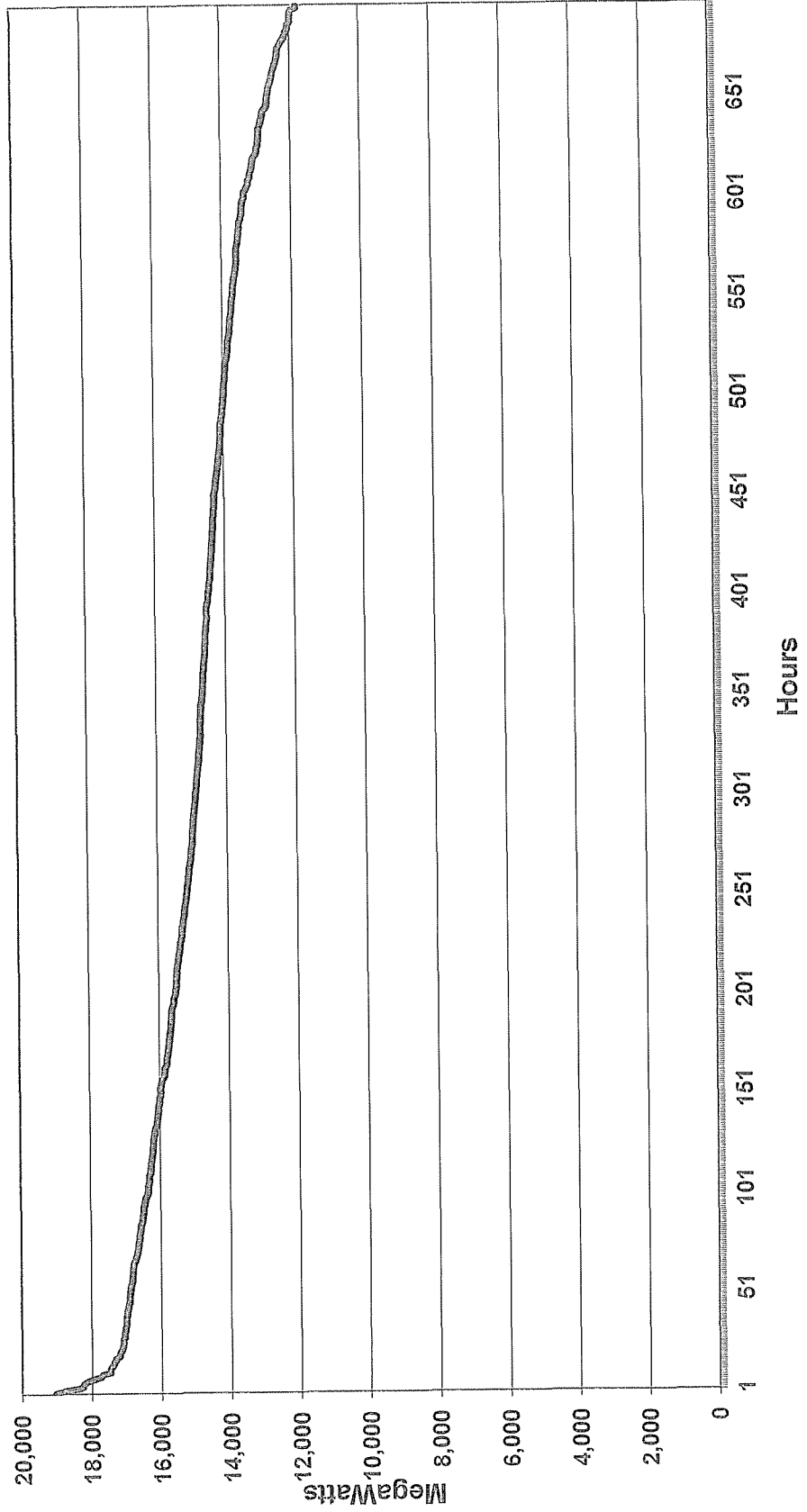
Kentucky Power Company
December 2012 Load Duration Curve
(System Load)



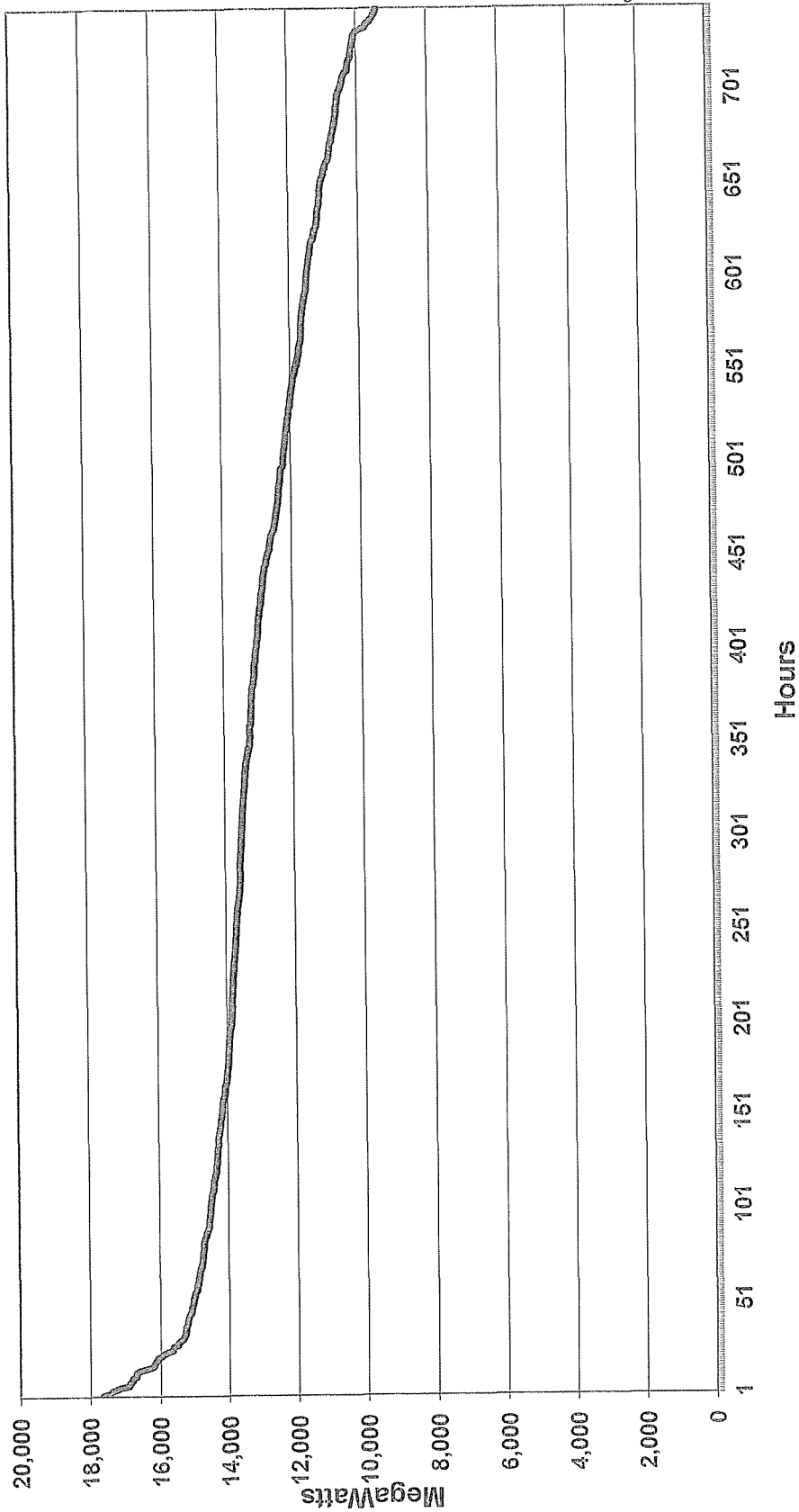
**AEP System-East Zone
January 2012 Load Duration Curve
(Internal Load)**



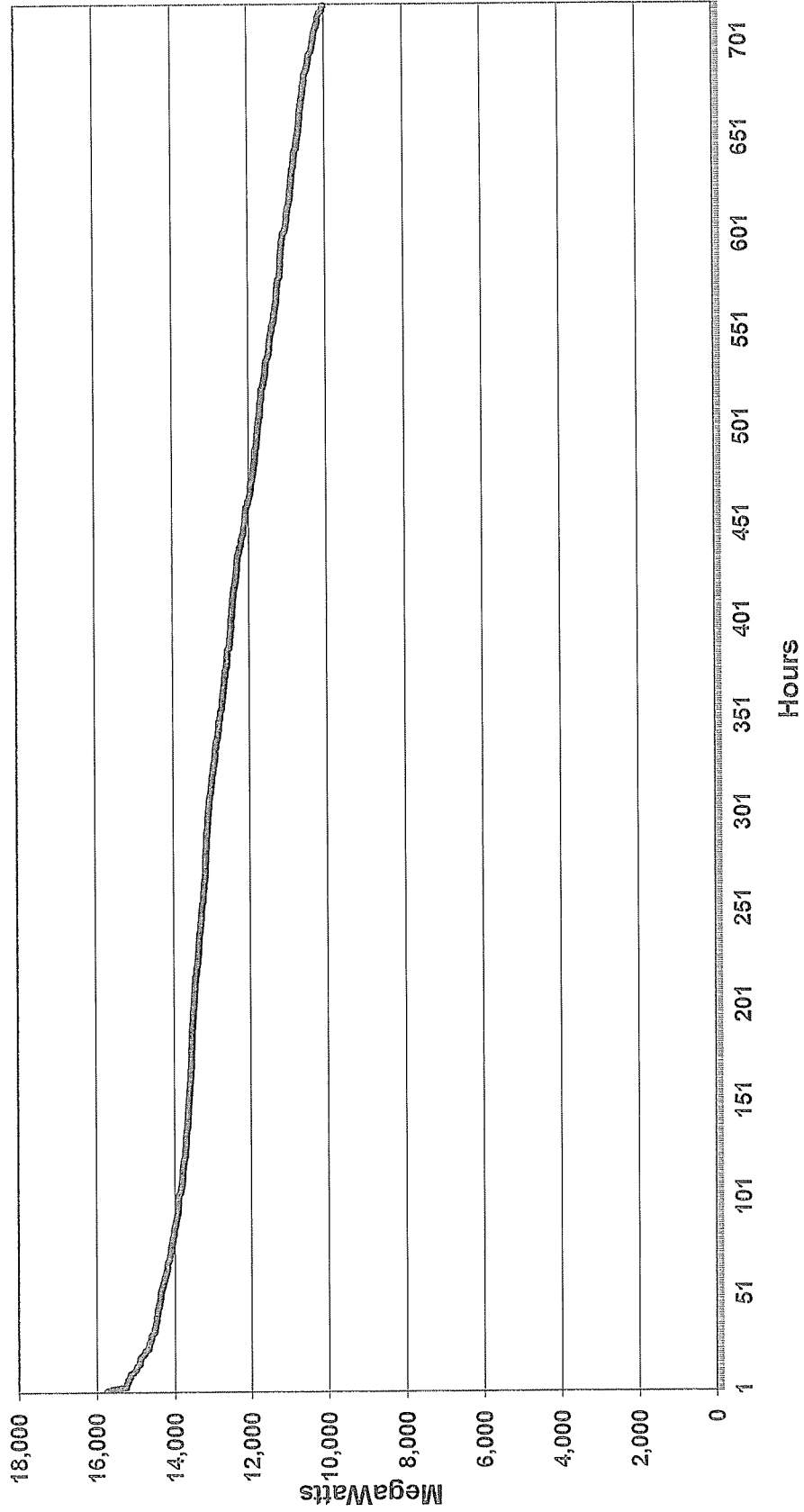
**AEP System-East Zone
February 2012 Load Duration Curve
(Internal Load)**



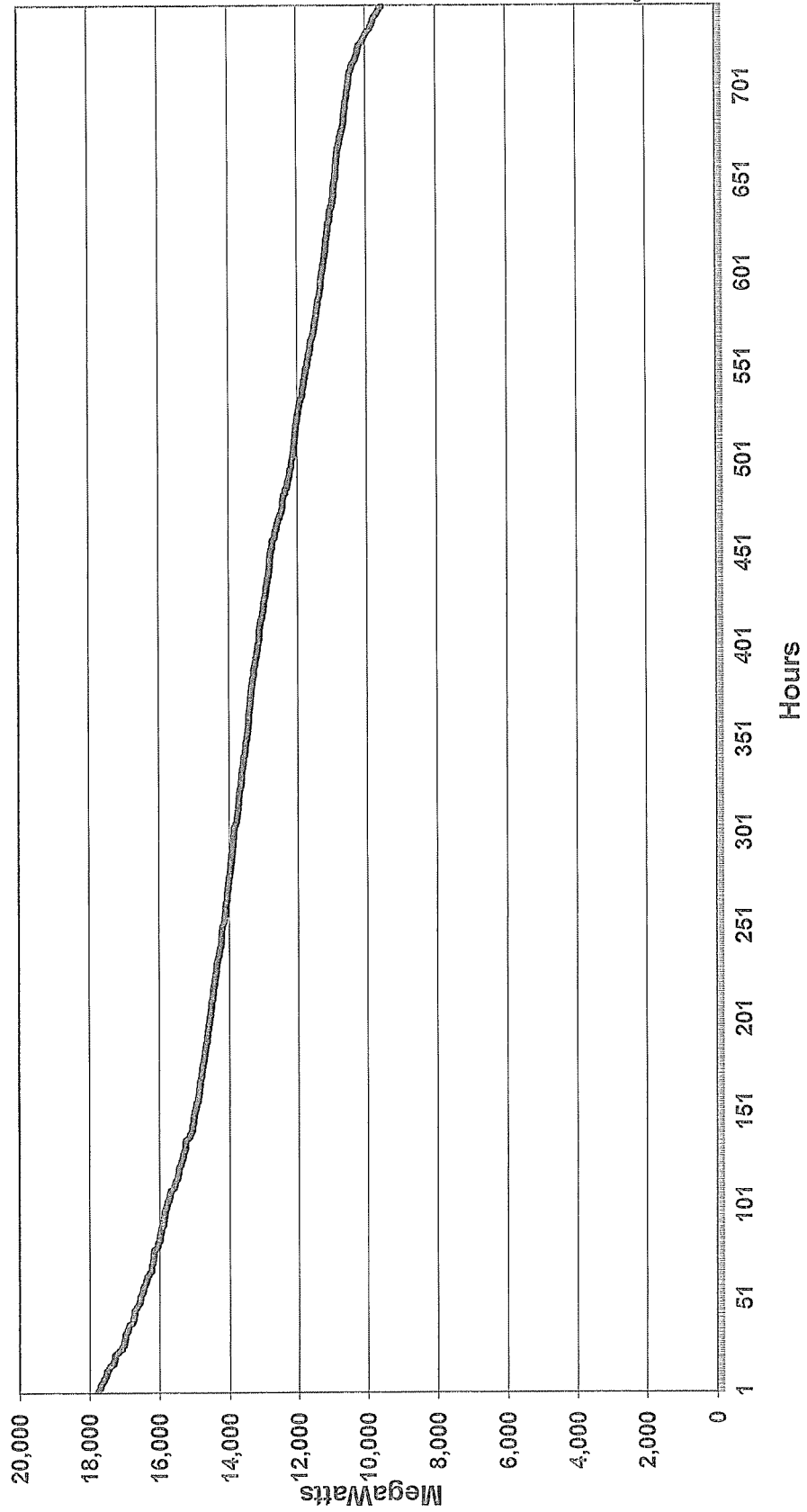
**AEP System-East Zone
March 2012 Load Duration Curve
(Internal Load)**



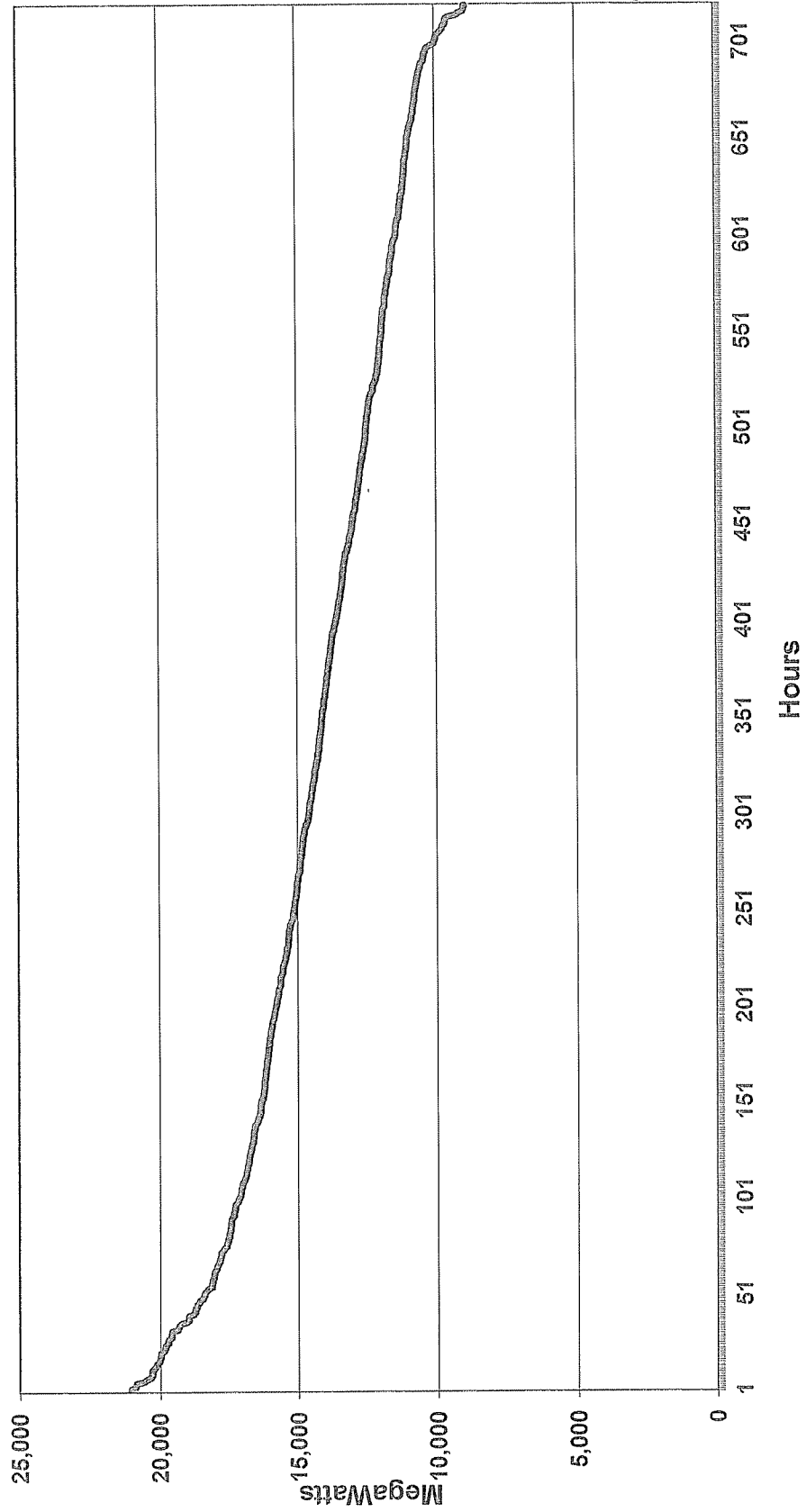
**AEP System-East Zone
April 2012 Load Duration Curve
(Internal Load)**



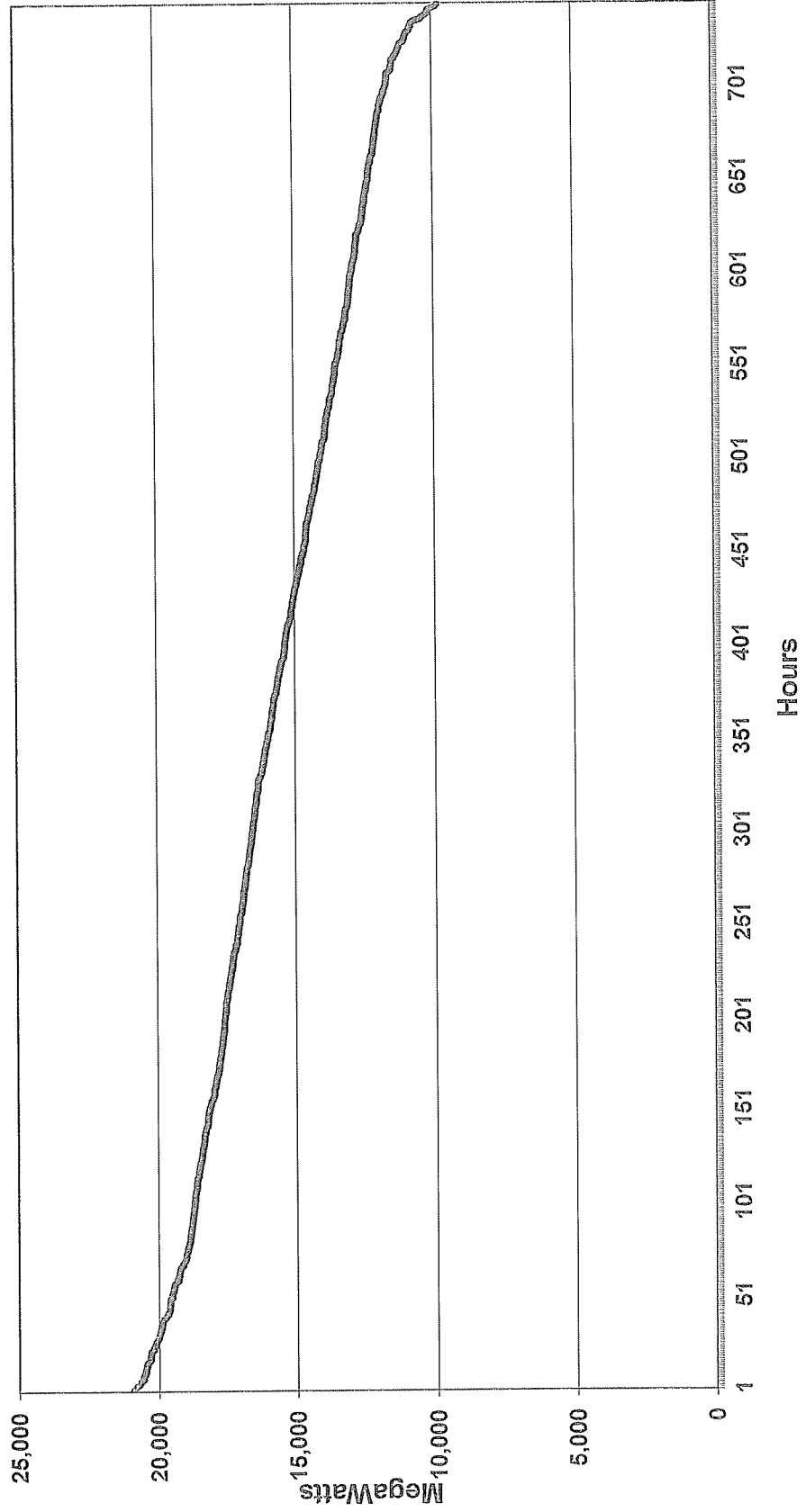
**AEP System-East Zone
May 2012 Load Duration Curve
(Internal Load)**



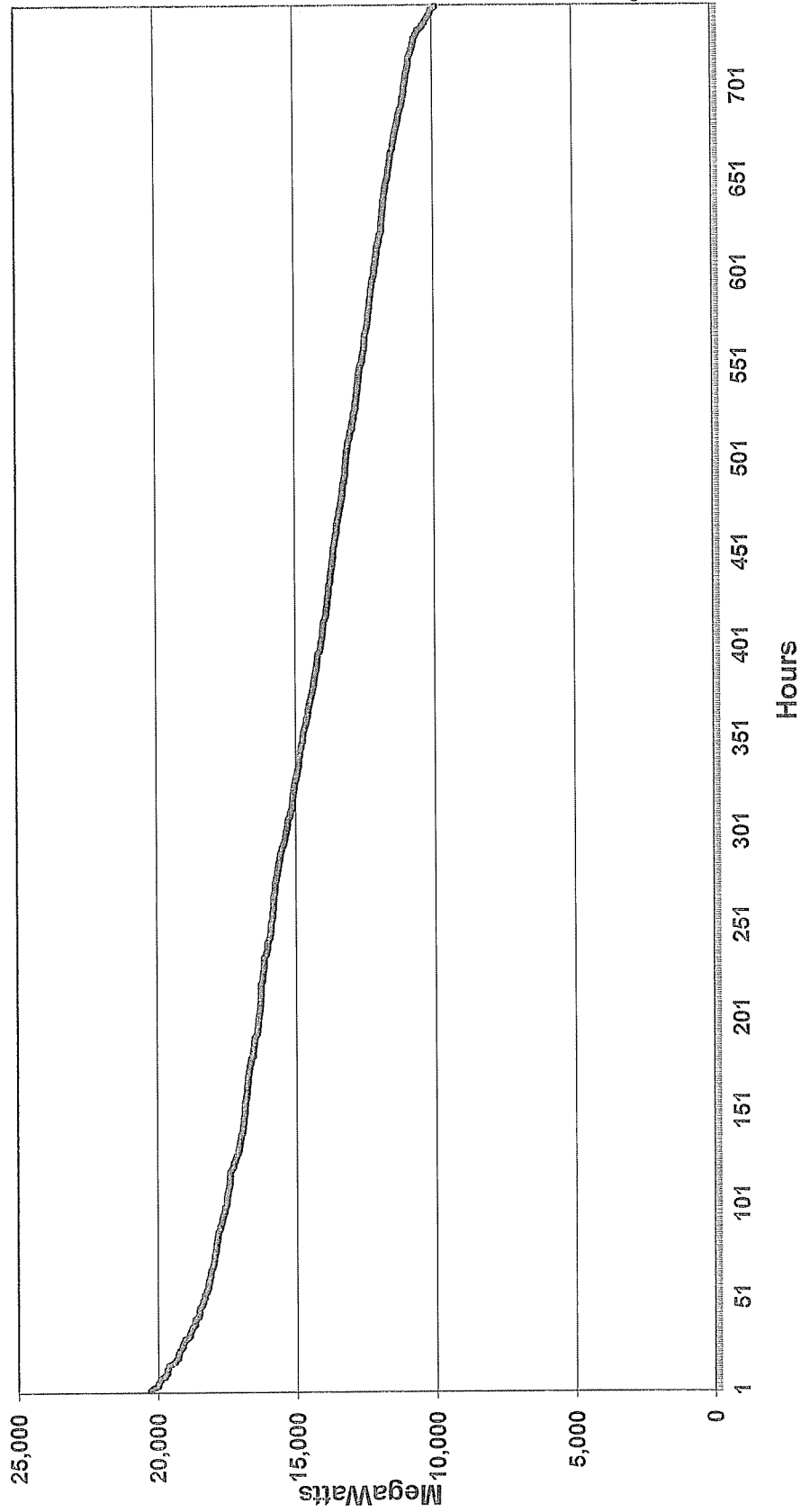
**AEP System-East Zone
June 2012 Load Duration Curve
(Internal Load)**



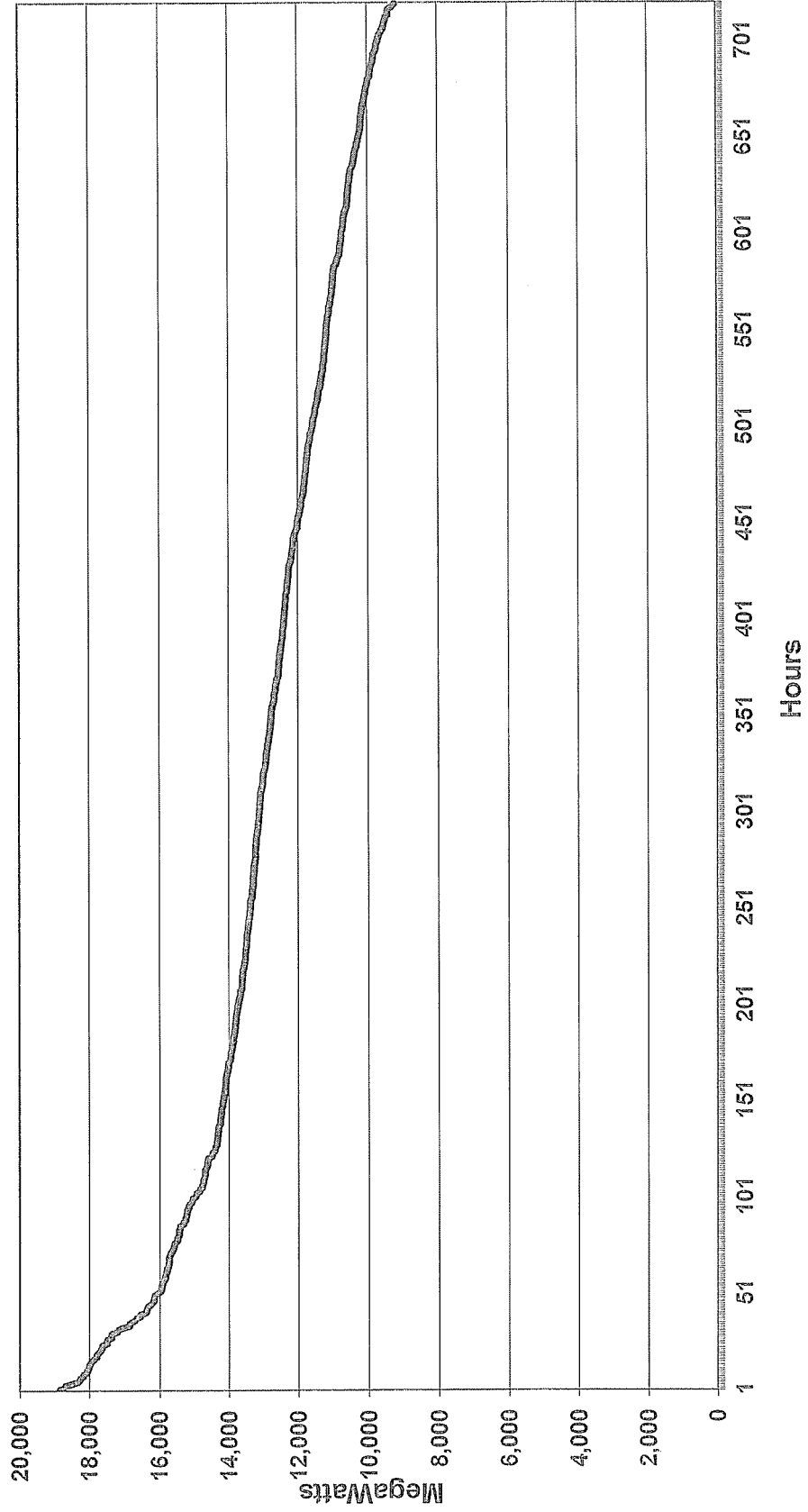
**AEP System-East Zone
July 2012 Load Duration Curve
(Internal Load)**



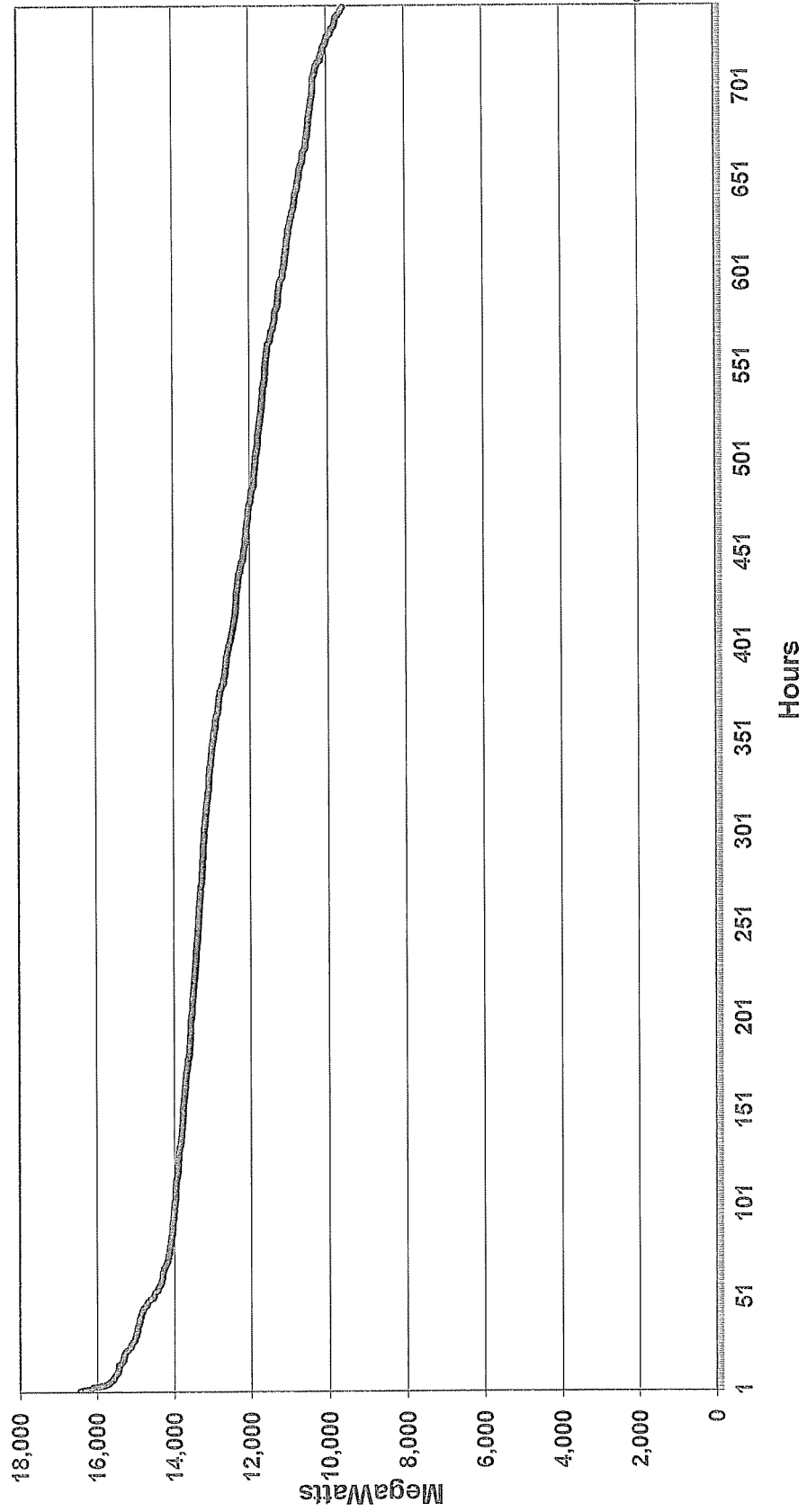
**AEP System-East Zone
August 2012 Load Duration Curve
(Internal Load)**



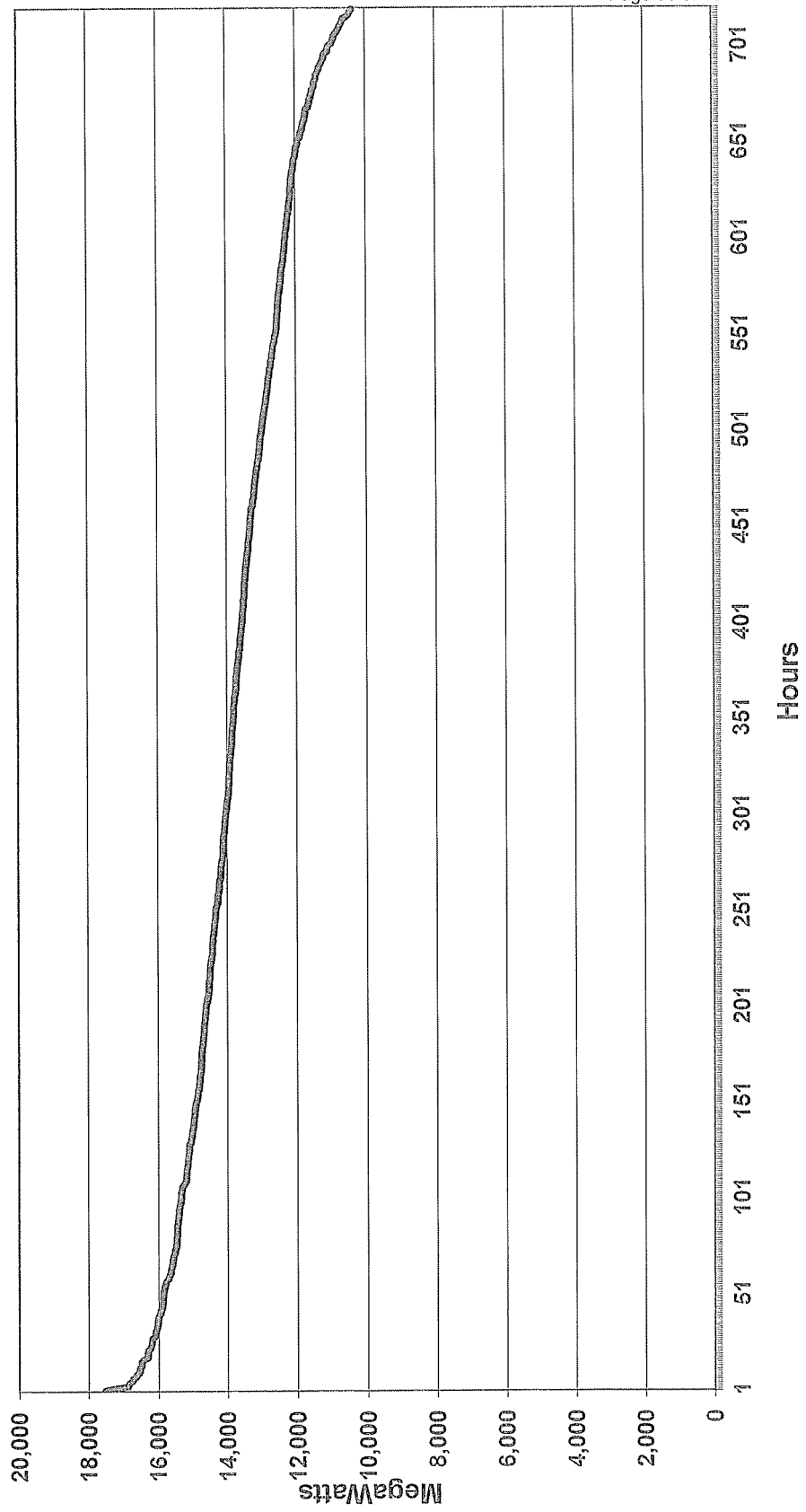
AEP System-East Zone September 2012 Load Duration Curve (Internal Load)



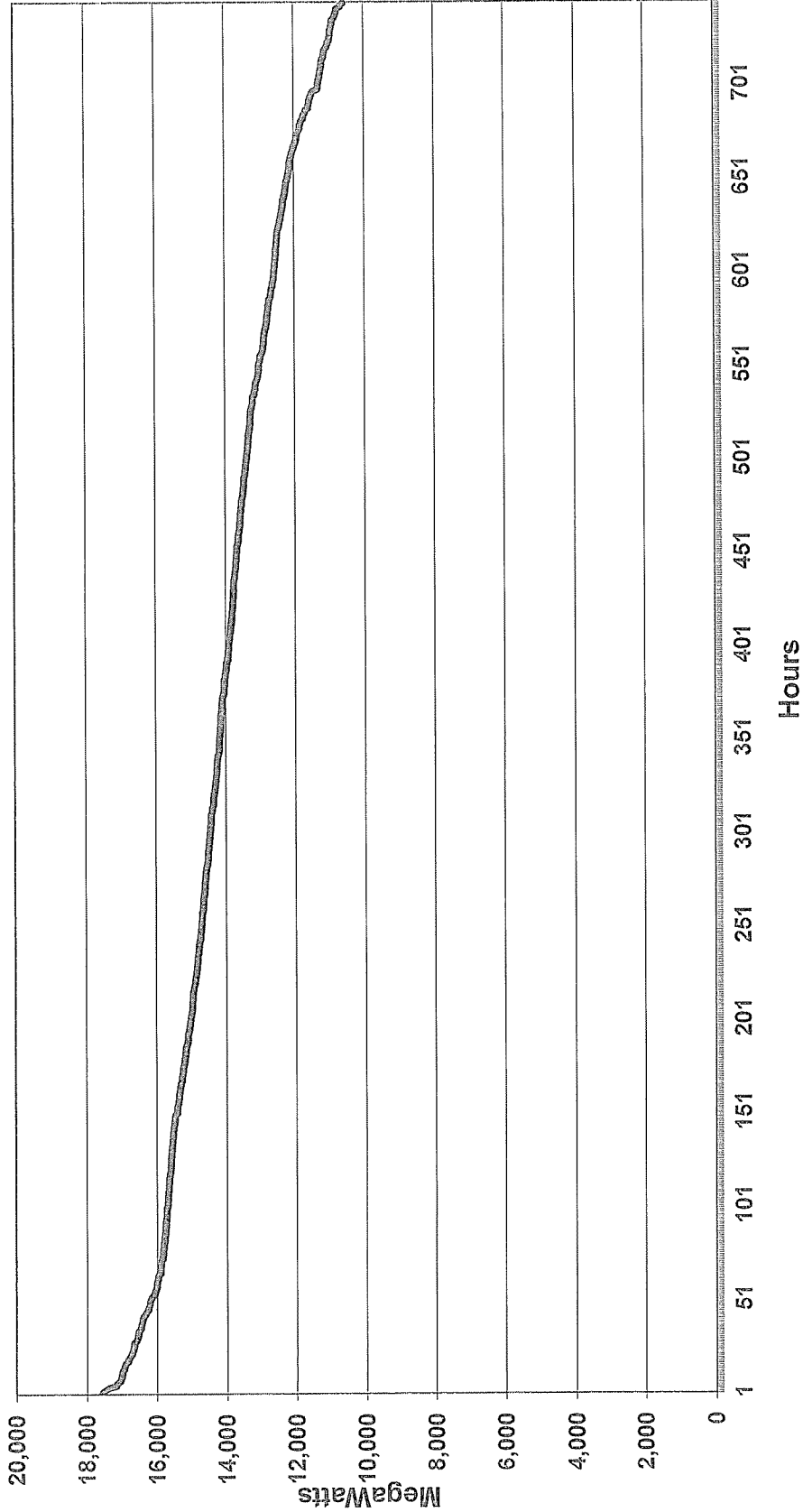
AEP System-East Zone
October 2012 Load Duration Curve
(Internal Load)



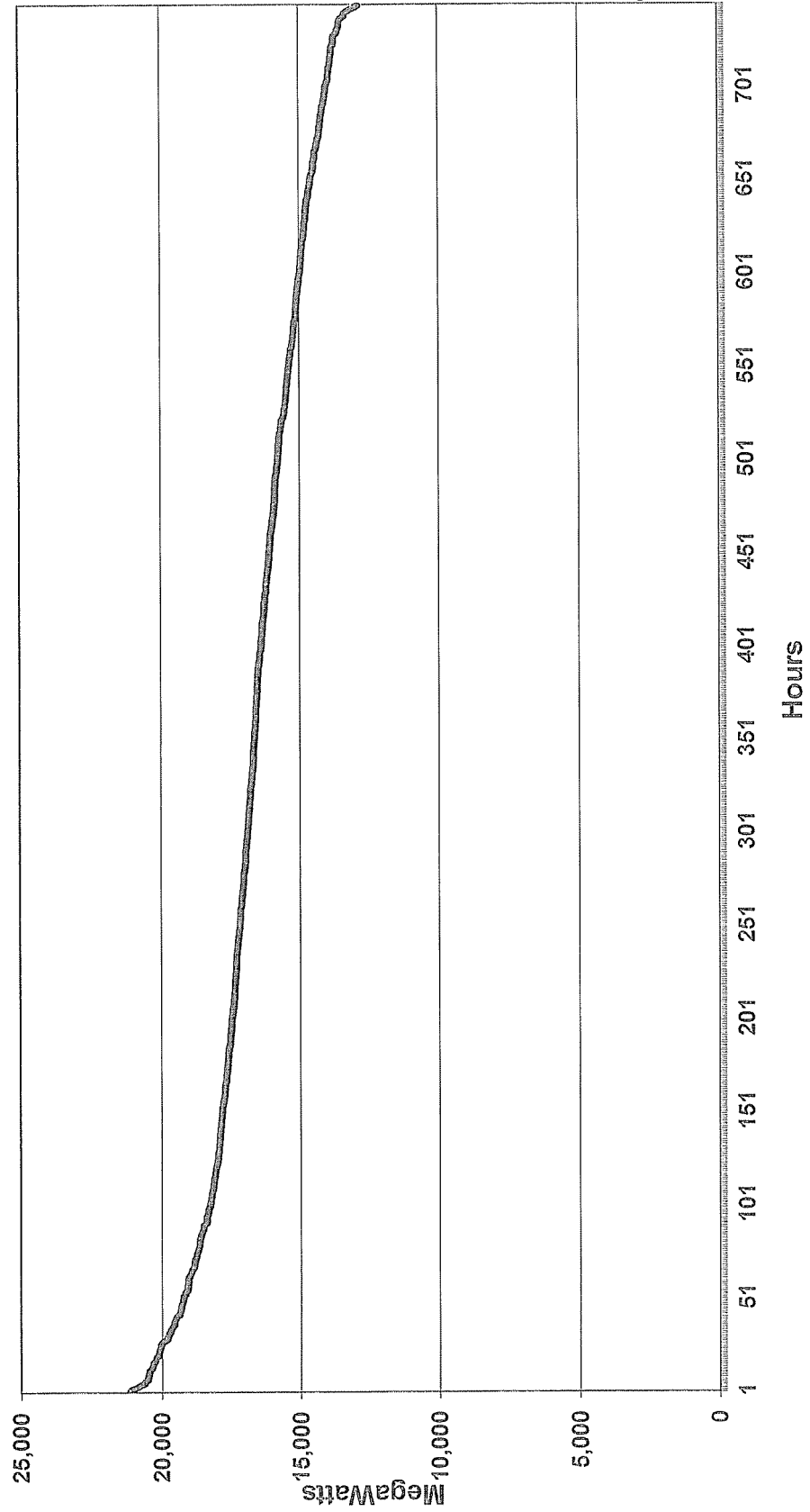
**AEP System-East Zone
November 2012 Load Duration Curve
(Internal Load)**



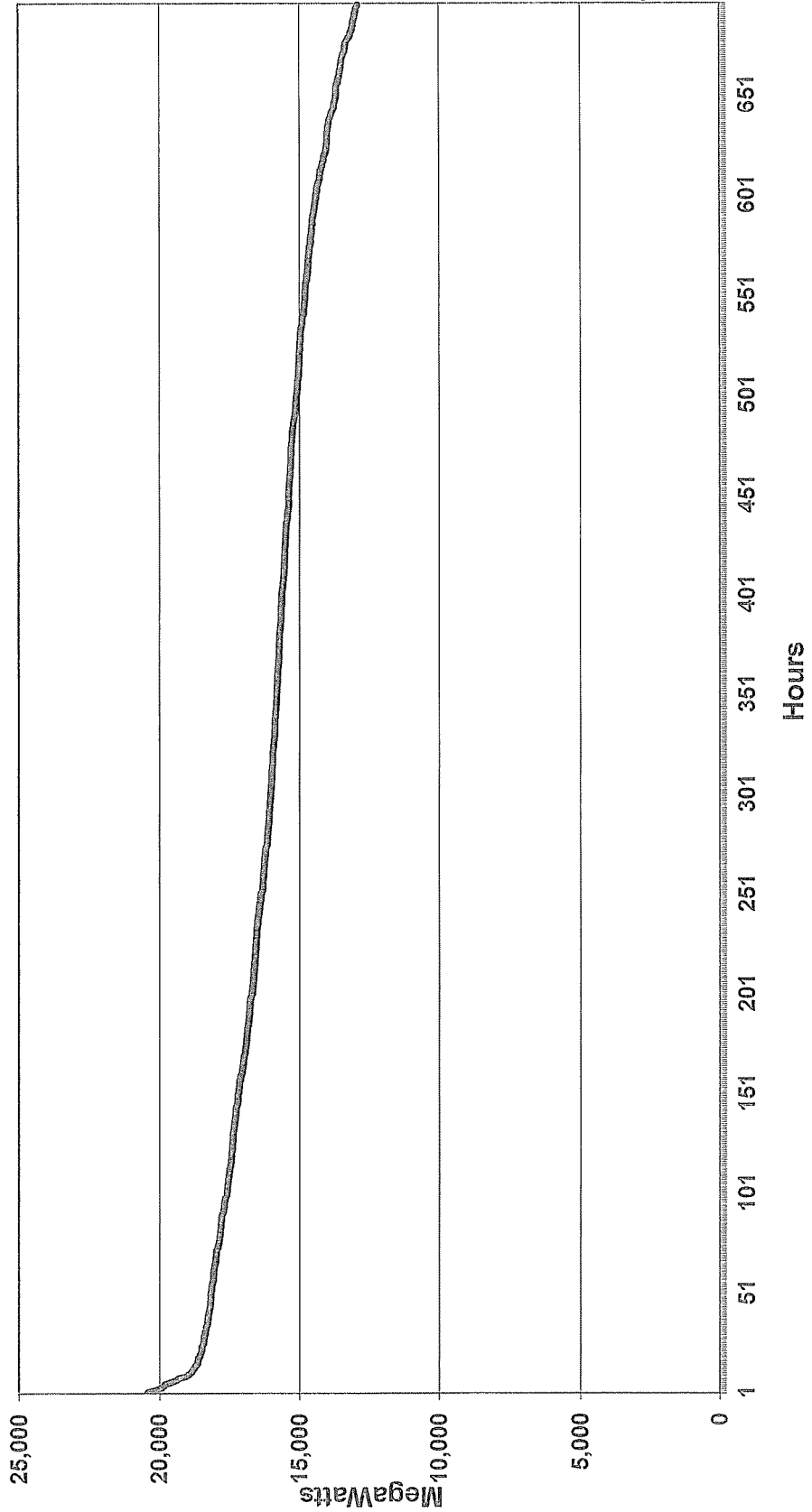
**AEP System-East Zone
December 2012 Load Duration Curve
(Internal Load)**



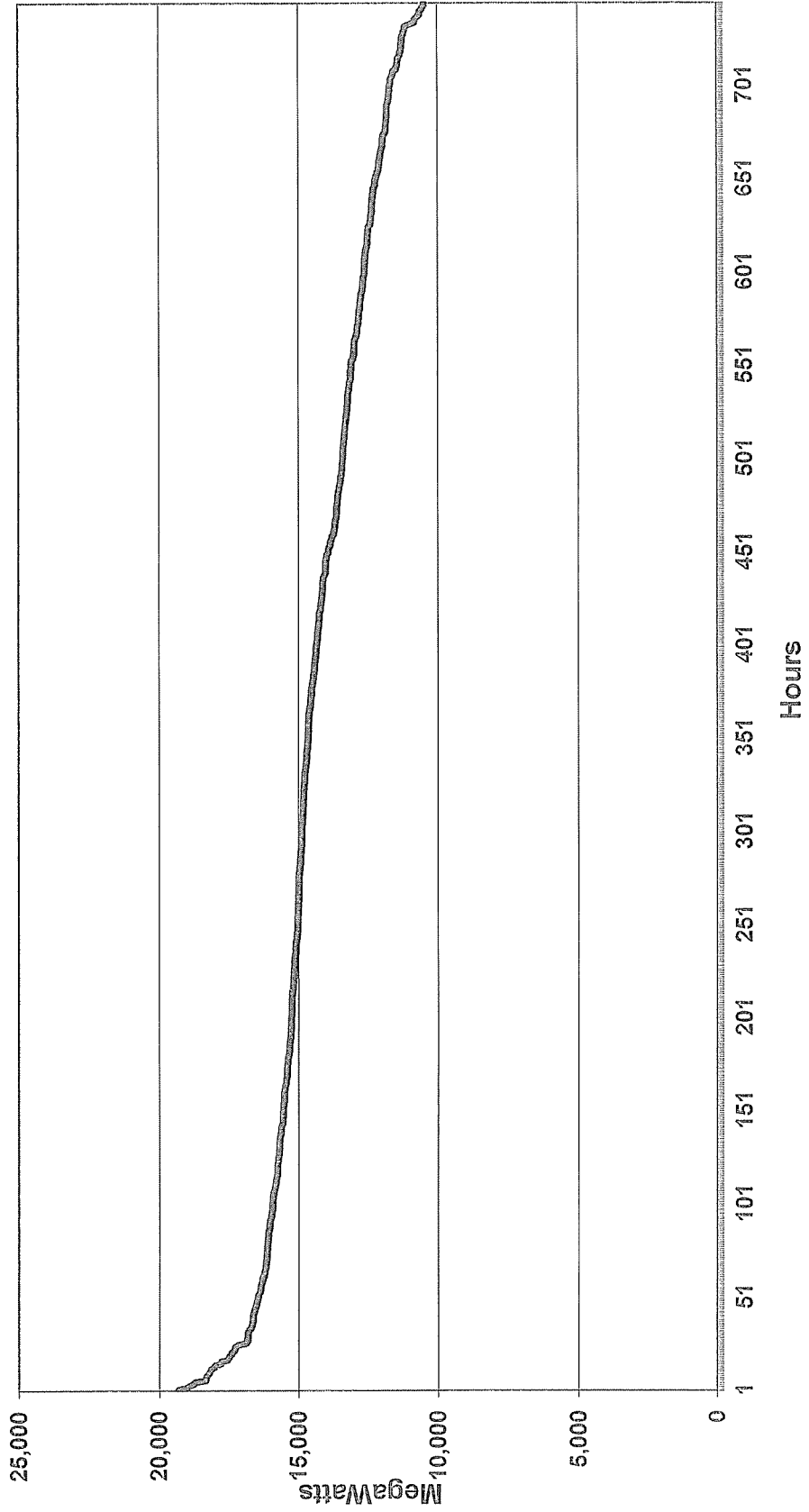
**AEP System-East Zone
January 2012 Load Duration Curve
(System Load)**



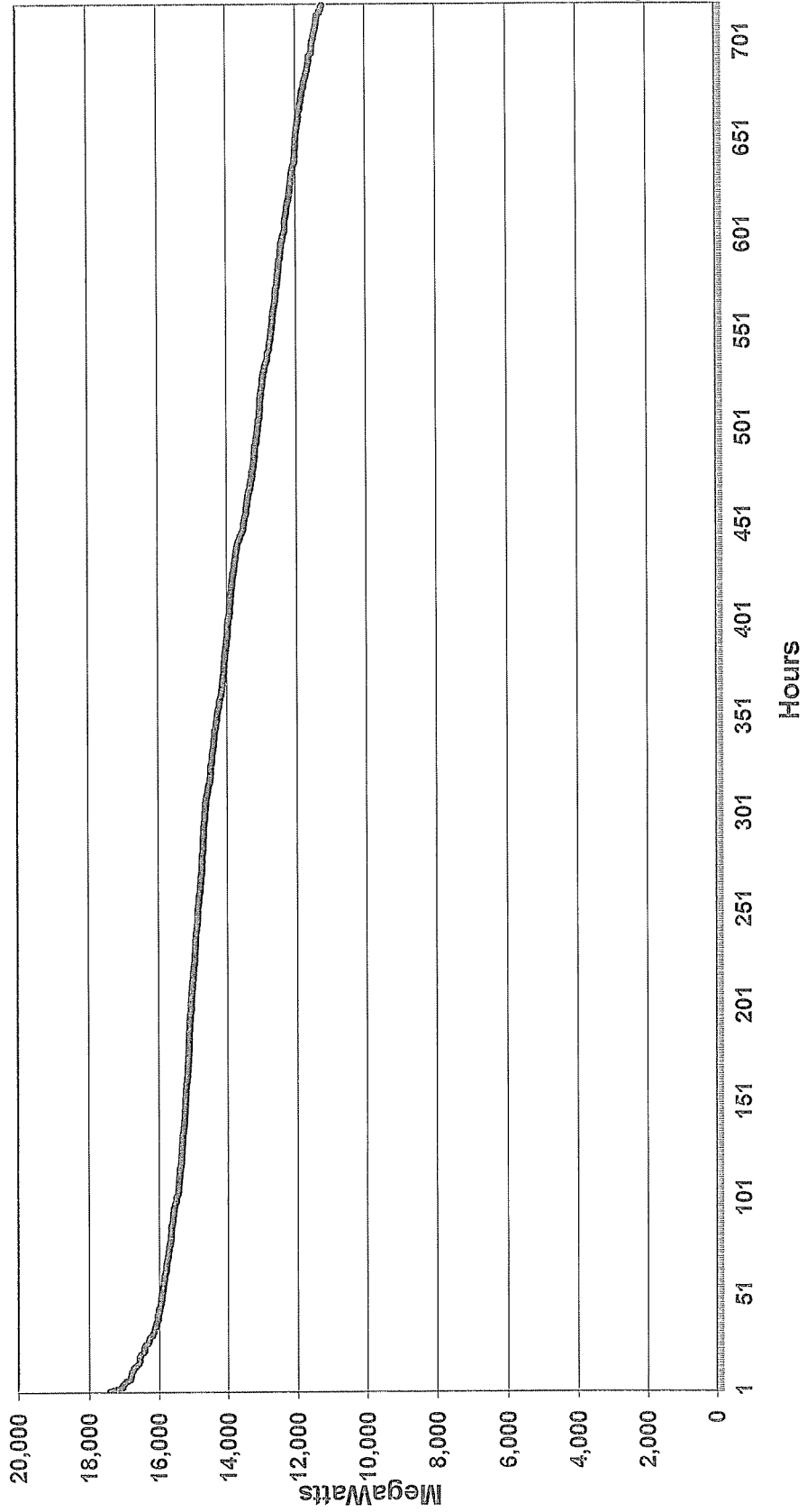
**AEP System-East Zone
February 2012 Load Duration Curve
(System Load)**



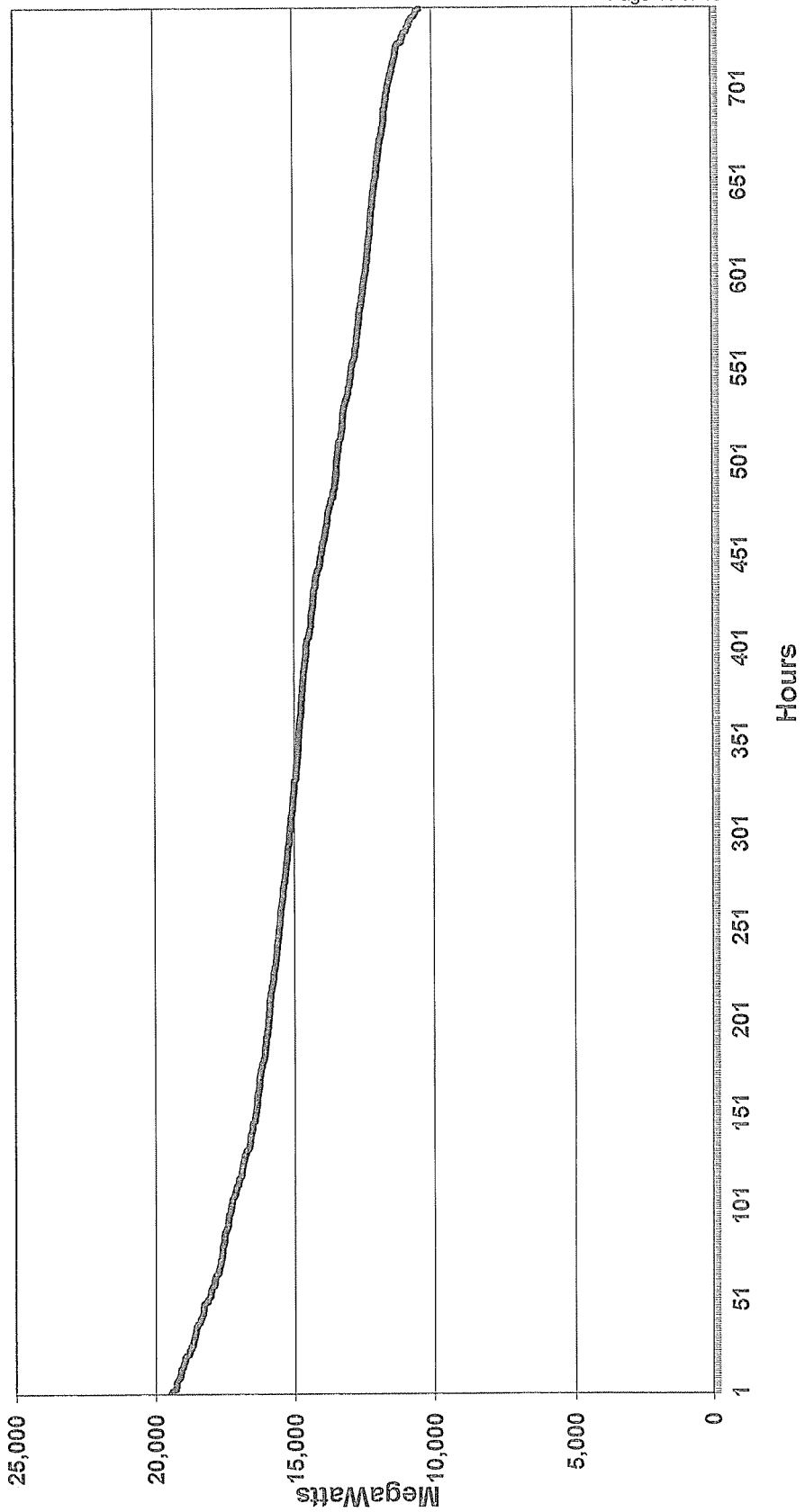
**AEP System-East Zone
March 2012 Load Duration Curve
(System Load)**



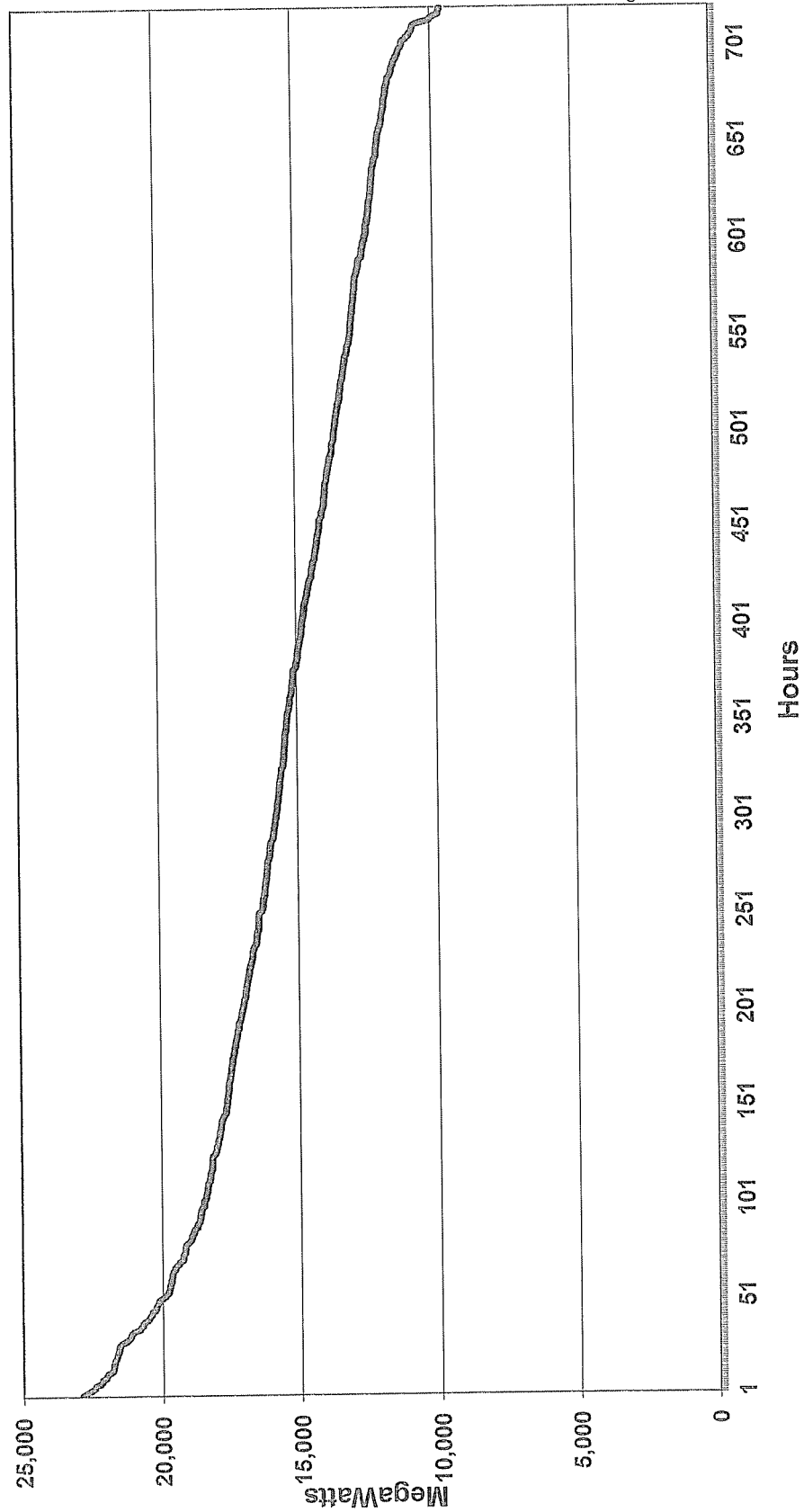
AEP System-East Zone April 2012 Load Duration Curve (System Load)



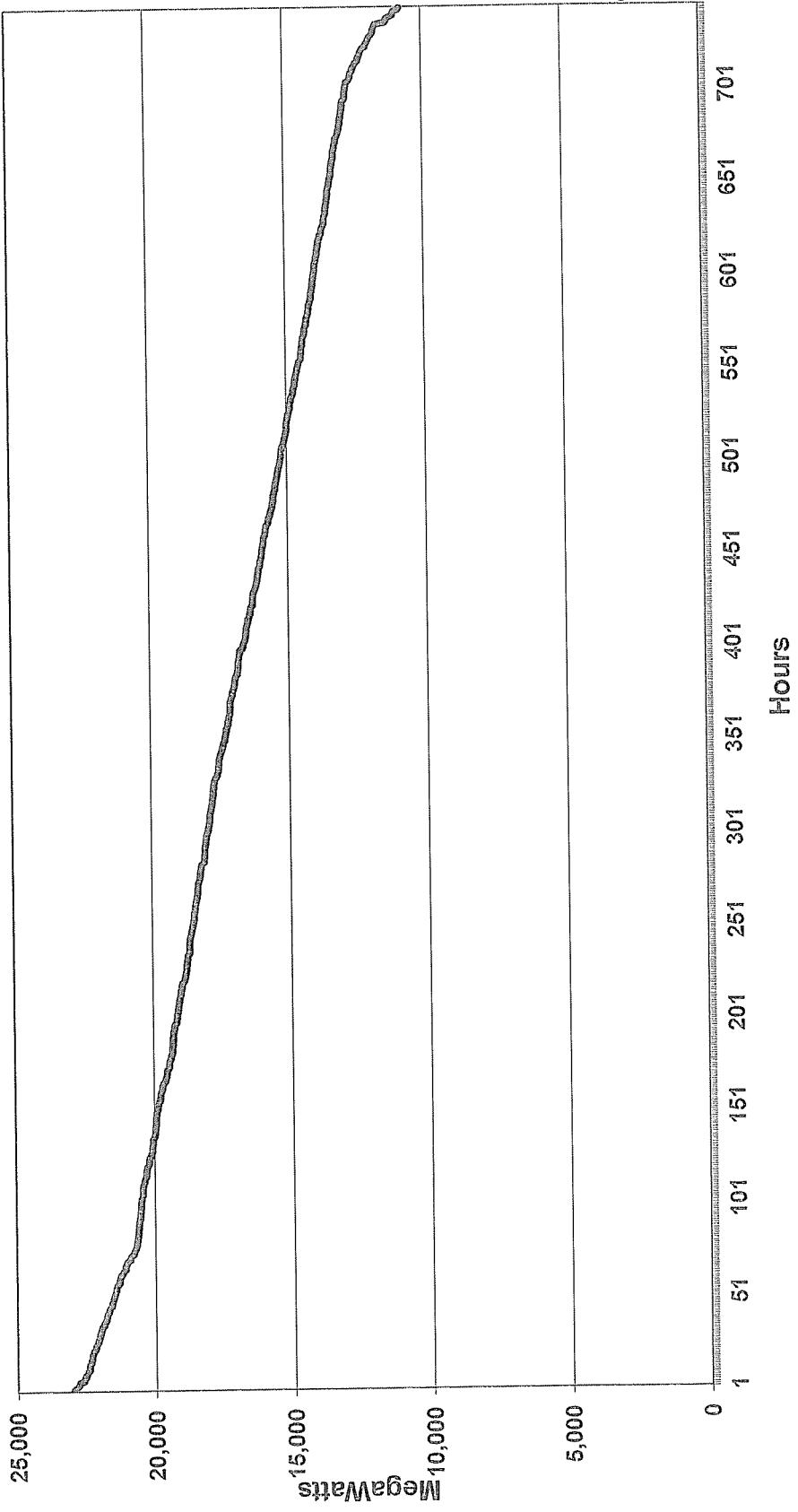
**AEP System-East Zone
May 2012 Load Duration Curve
(System Load)**



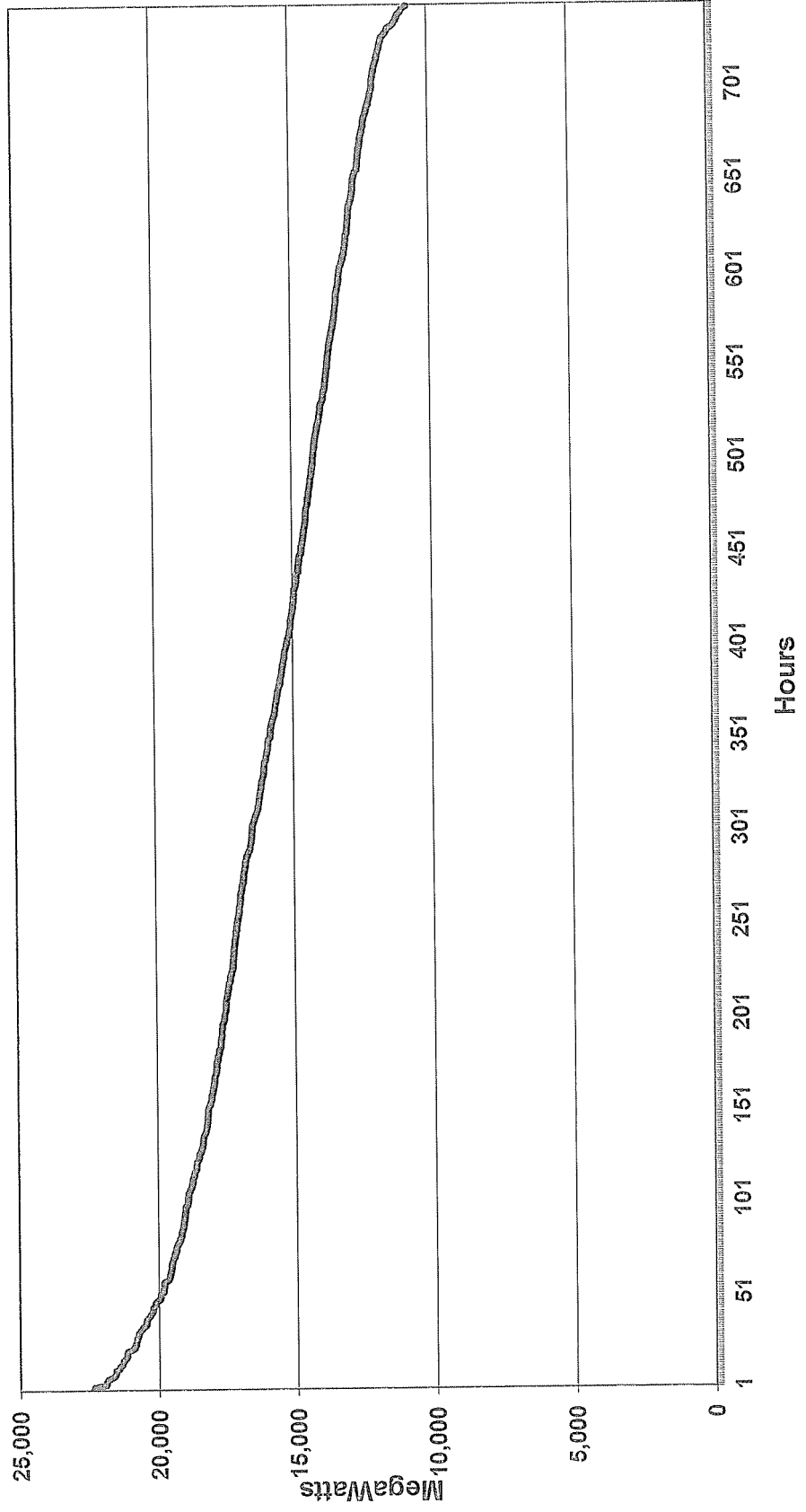
AEP System-East Zone
June 2012 Load Duration Curve
(System Load)



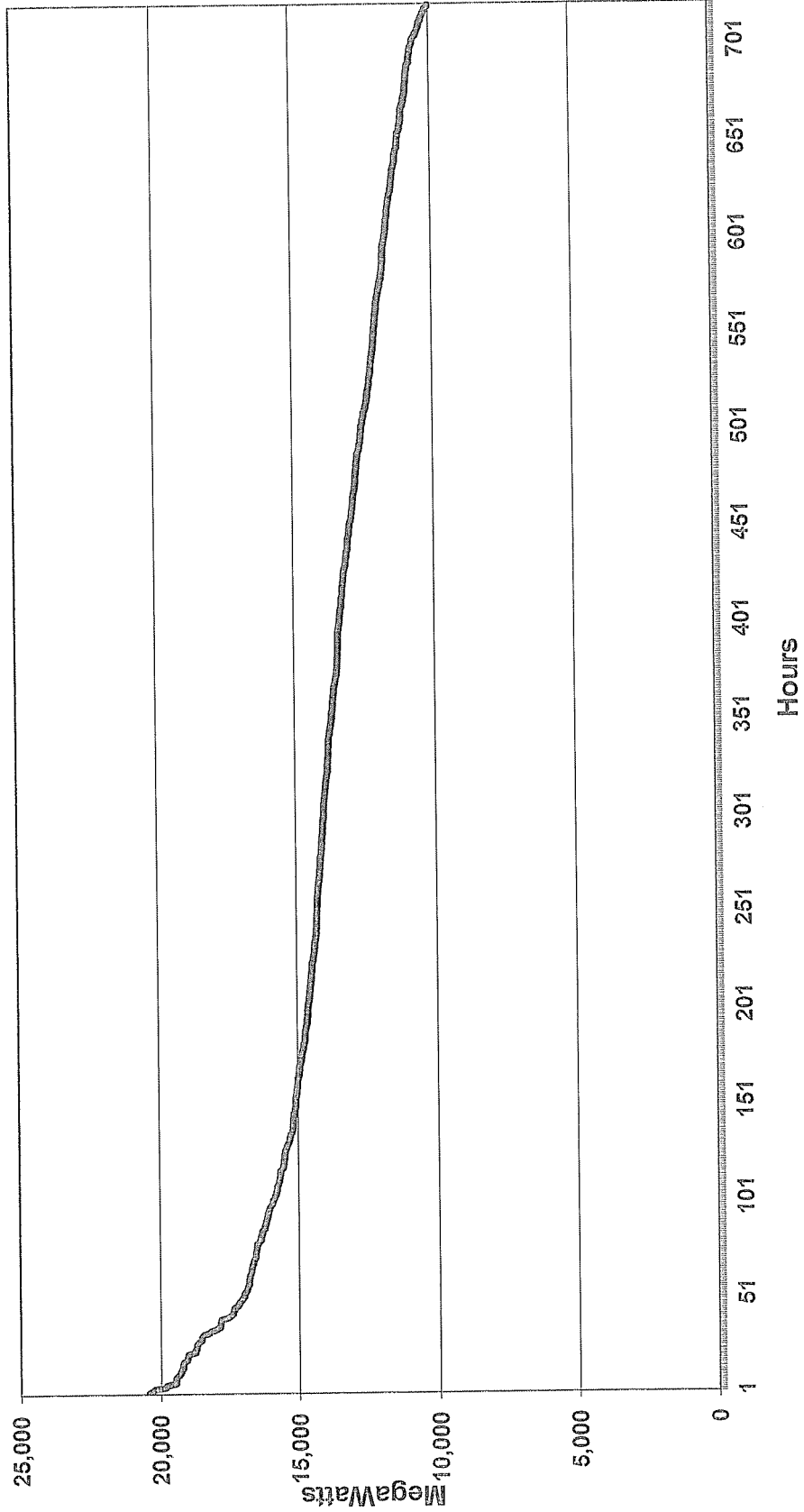
AEP System-East Zone
July 2012 Load Duration Curve
(System Load)



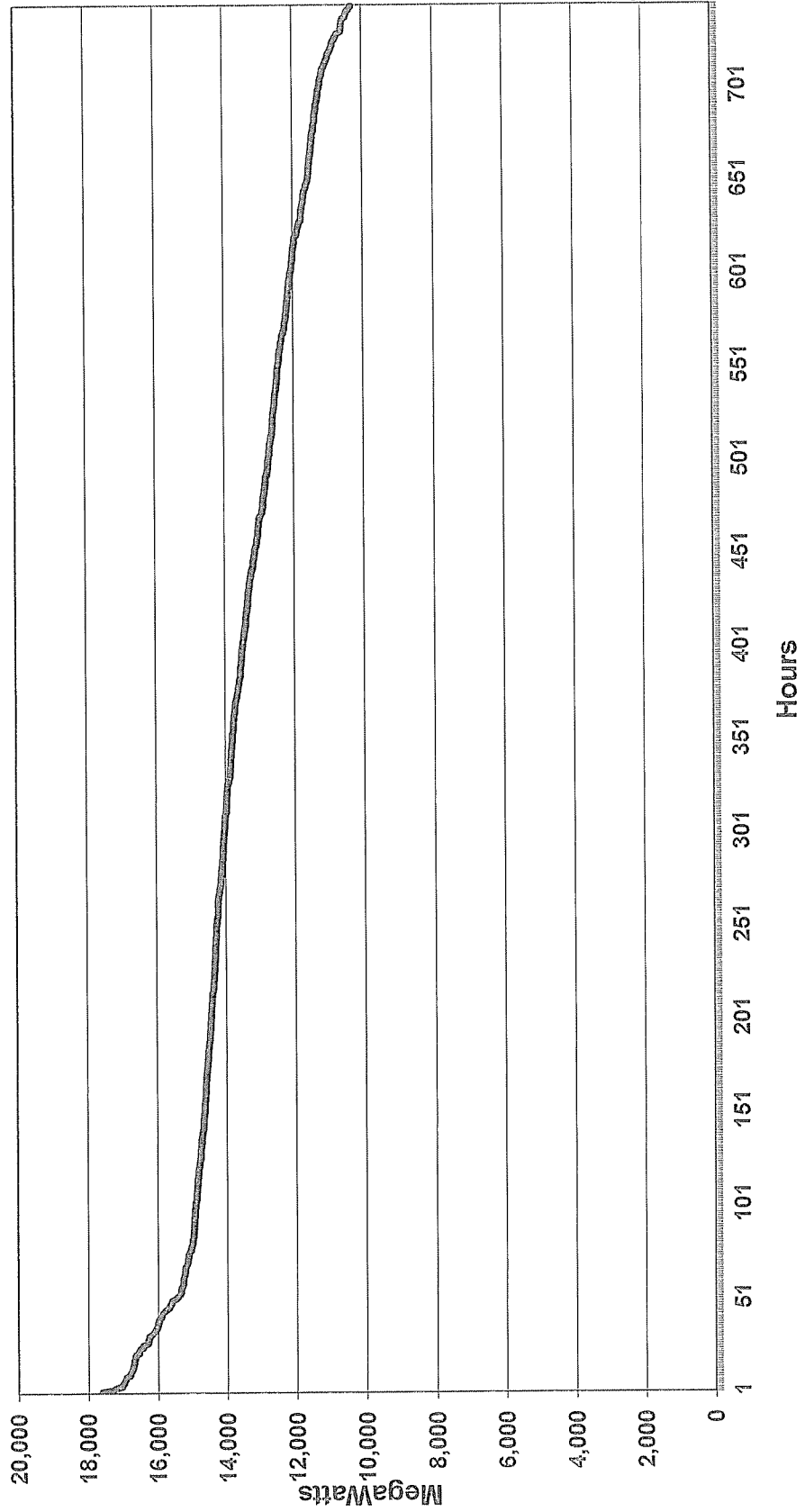
AEP System-East Zone
August 2012 Load Duration Curve
(System Load)



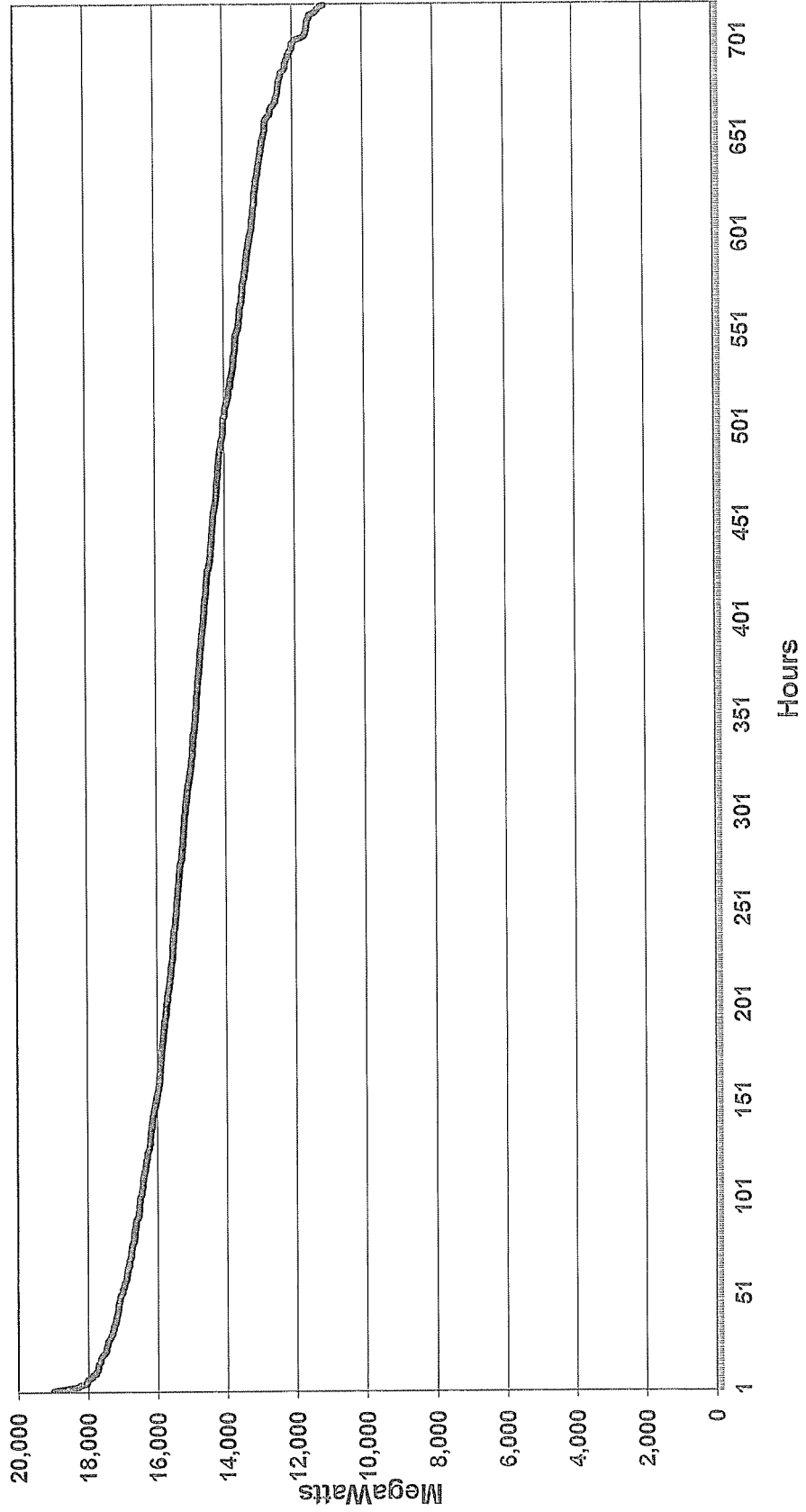
**AEP System-East Zone
September 2012 Load Duration Curve
(System Load)**



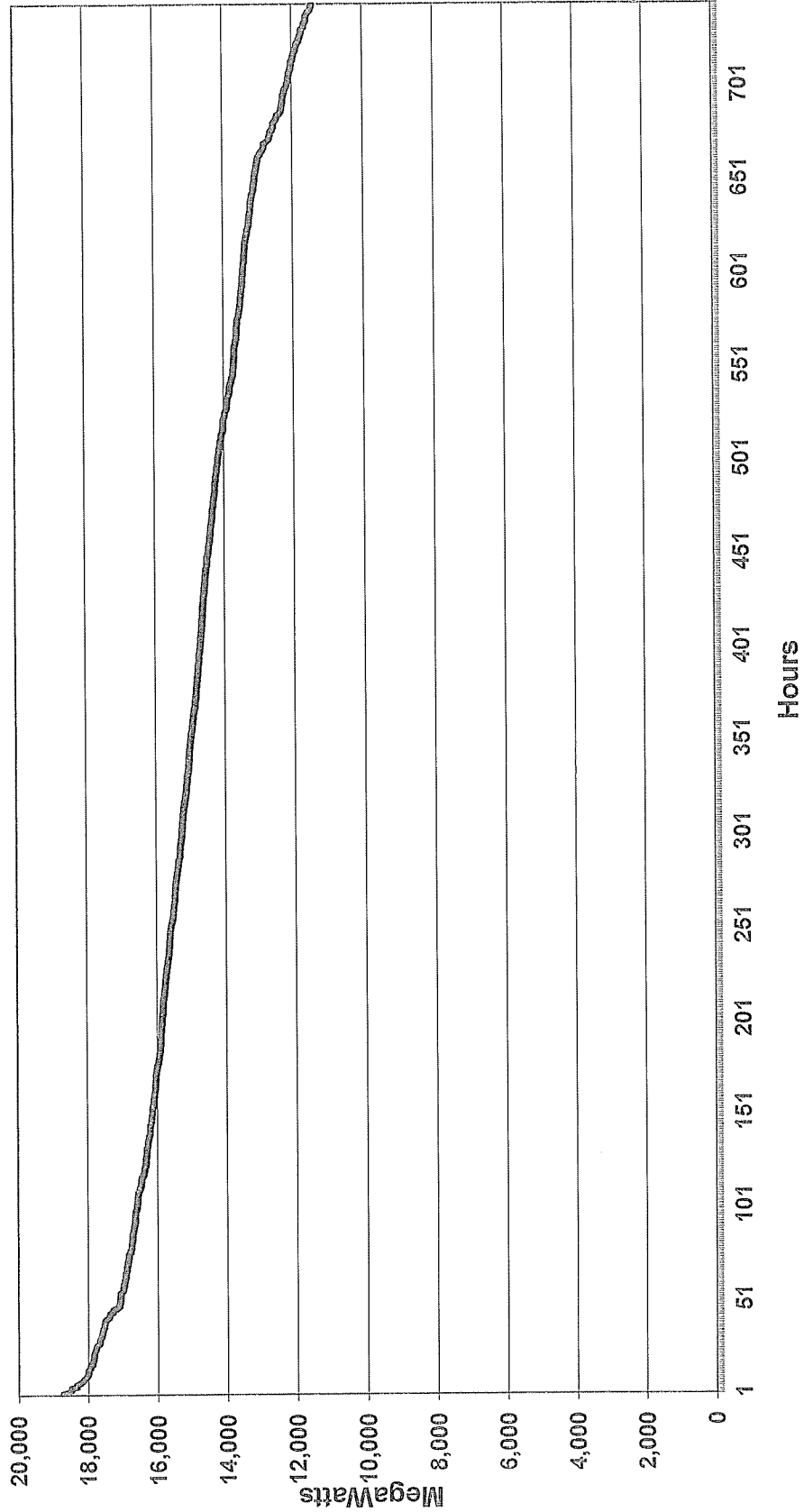
AEP System-East Zone
October 2012 Load Duration Curve
(System Load)



**AEP System-East Zone
November 2012 Load Duration Curve
(System Load)**



**AEP System-East Zone
December 2012 Load Duration Curve
(System Load)**



Kentucky Power Company

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). Please provide the information for both Kentucky Power Company individually and the AEP-East Power Pool (pursuant to the Commission's December 13, 2004 Order in the Rockport UPSA extension, Case No. 2004-00420).

RESPONSE

Attachment 1, Page 1 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.

Attachment 2, Page 2 provides AEP System-East'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.

The off-system energy sales forecasts for Kentucky Power Company and AEP System-East are provided on Attachment 1, Page 3 of this response. Forecasts of off-system peak demand for Kentucky Power Company and AEP System-East have not been developed and therefore, such forecasts are 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: Lila P Munsey

Kentucky Power Company
Base and High Forecast
Energy Sales (GWH) and Seasonal Peak Demand (MW)
2013 - 2017

Year	Energy Sales		Summer Peak Demand		Preceding Winter Peak Demand	
	Base	High	Base	High	Base	High
2013	7,313	7,418	1,208	1,225	1,499	1,520
2014	7,339	7,470	1,214	1,236	1,503	1,530
2015	7,362	7,501	1,220	1,243	1,505	1,534
2016	7,370	7,513	1,219	1,243	1,500	1,529
2017	7,382	7,532	1,218	1,243	1,501	1,532

AEP System-East Zone
Base and High Forecast
Energy Sales (GWH) and Seasonal Peak Demand (MW)
2013 - 2017

Year	Energy Sales		Summer Peak Demand		Preceding Winter Peak Demand	
	Base	High	Base	High	Base	High
2013	123,326	125,102	20,731	21,029	20,216	20,507
2014	123,834	126,041	20,820	21,191	20,368	20,731
2015	124,116	126,463	20,863	21,258	20,377	20,762
2016	124,338	126,749	20,849	21,253	20,310	20,704
2017	124,322	126,844	20,865	21,289	20,321	20,733

Kentucky Power Company and AEP System-East Zone
 Forecast Off-System Energy Sales (GWh)
 2013 - 2017

<u>Year</u>	<u>KPCo Off-System Sales</u>	<u>AEP-East Off-System Sales</u>
2013	1,981	30,057
2014	2,175	15,146
2015	2,026	15,292
2016	1,317	14,293
2017	1,371	15,370

Kentucky Power Company

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. Please provide the information for both Kentucky Power Company individually and the AEP-East Power Pool (pursuant to the Commission's December 13, 2004 Order in the Rockport UPSA extension, Case No. 2004-00420).

RESPONSE

Due to the October 1, 2004 integration of AEP's Eastern System into the PJM Interconnection, AEP is now required to comply with the PJM mandated reserve margin.

The installed reserve margin requirement (IRM) is recalculated each year, depending on five-year average generation reliability, PJM load shape, and assistance available from neighboring regions. In addition, AEP's responsibility to PJM depends on its twelve-month history of generator reliability and its peak demand diversity in relation to the PJM total load. Attachment 1 of this response provides an example of the PJM reserve requirement calculation.

For the 2013/14 and 2014/15 delivery periods PJM has set the IRM at 15.9%. For the 2015/16 delivery period PJM has set the IRM at 15.3% and 15.6% for the 2016/17 delivery period. For planning purposes AEP assumed a 15.6% IRM for all future years. The resulting AEP reserve margin for 2013/14 is 23.3% as shown in Attachment 2 of the response to Item No. 5 of this set of data responses. (This compares with 12% that AEP used, based on its determinations, from the late 1990s until 2004, and 15% prior to that.)

Currently, Kentucky Power Company is capacity deficient on a stand-alone basis. The Interconnection Agreement is scheduled to terminate on January 1, 2014.

WITNESS: Lila P Munsey

PJM Reserve Margin Example For 2013/14 Planning Year

Line	Comment
1 Factors	
2	PJM Installed Reserve Margin (IRM) = 15.90%
3	PJM EFORD = 6.05% Based on 5-year average PJM EFORD
4	Forecast Pool Requirement (FPR) = 1.0889 FPR = (1 + Line 2) * (1 - Line 3)
5	
6 Obligations	
7	Total Load Obligation = 20,058 Coincident peak forecasted by PJM
8	UCAP Obligation = 21,840 Line 4 * Line 7
9	UCAP Market Obligations = 1,396
10	Total UCAP Obligation = 23,236 Line 8 + Line 9
11	
12 Resources	
13	Net ICAP = 27,319
14	AEP EFORD = 11.42% MW-weighted average of Unit EFORDs
15	Available UCAP = 24,199 Line 13 * (1- Line 14)
16	
17 Position	
18	Net UCAP Position = 963 Line 15 - Line 10
19	Net ICAP Position = 1,087 Line 18 / (1- Line 14)
20	
21	Reserve Margin Percent = 28.4 Question 5 attached Exhibit 5-2, Column (16)
22	Reserve Percent Required By PJM = 23.3 Line 21 - (Line 19 / Question 5 attached Exhibit 5-2, Column (6)) * 100

Kentucky Power Company

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. Please provide the information for both Kentucky Power Company individually and the AEP-East Power Pool (pursuant to the Commission's December 13, 2004 Order in the Rockport UPSA extension, Case No. 2004-00420)

RESPONSE

Attachment 1 of this response provides projected winter peak demands, capabilities, and margins for KPCo for the winter seasons 2012/13 through 2016/17. Kentucky Power's PJM capacity requirements will be based on summer peak.

Attachment 2 of this response only provides projected summer peak demands, capabilities, and margins for the AEP System - East Zone through 2013 because the Interconnection Agreement is scheduled to terminate on January 1, 2014.

WITNESS: Lila P Munsey

KENTUCKY POWER COMPANY
Projected Winter Peak Demands, Generating Capabilities, and Margins

Winter Season	Peak Demand - MW				Capacity - MW				Margin (g)		
	Internal Demand (1)	DSM (2)	Committed Sales (3)	Total Demand (4)=(1)+(2)+(3)	Existing Capacity & Chngs (c)	Net Sales (d)	Name/Identifier (e)	Mkt. Purch. (10)	Total Equivalent Capacity (11)=(7)+(8)+Sumf(9)+(10)	MW (12)=(11)-(6)	% of Demand (13)=(12)/(8)*100
2012/13	1,505	(6)	0	1,499	1,471	60	No New Build	0	1,411	(88)	(5.7)
2013/14	1,517	(14)	0	1,503	1,471	43	No New Build	0	1,428	(75)	(5.0)
2014/15	1,527	(21)	0	1,506	2,233	0	No New Build	0	2,233	727	48.3
2015/16	1,532	(32)	0	1,500	1,438	0	No New Build	0	1,438	(62)	(4.1)
2016/17	1,534	(33)	0	1,501	1,438	0	No New Build	0	1,438	(63)	(4.2)

Notes: (a) Based on January 2013 Load Forecast.
 (b) Existing plus approved and projected "Passive" EE, and IVV.
 (c) Reflects winter capability assumptions. Wind Farm PPAs (Where Applicable) EFFICIENCY IMPROVEMENTS. 2015/16: Rockport 1: 36 MW (turbine) DSI DERATES. 2015/16: Rockport 1-2: 0 MW each ASSUMED RETIREMENTS FOR PLANNING PURPOSES: 2015/16: Big Sandy 2 (600 MW)
 (d) Includes companies MLR share of: Contractual share of remaining Mone capacity Ceredo/Darby/Glen Lyn Sale to AMPO ATSI, and IMEA 2012/13 (171 MW) Sale of 12 MW in 2012/13 and 13 MW in 2013/14 to Duke Sale of 210 MW 2012/13 to EMMT RPM Auction Sales 2012/13 - 2013/14 (646, 700)(MW UCAP) 3.6 MW capacity credit from SEPA's Philipot Dam via Blue Ridge contract
 (e) New wind and solar capacity value is assumed to be 13% and 6.67% of nameplate
 (f) Reflects the ownership transfer of 50% of Mitchell units 1 & 2 effective 1/1/2014 (760 MW) Also, includes the Big Sandy Unit 1 Gas Conversion (268 MW) planning assumption pending results of RFP evaluation
 (g) Represents margin relative to KPCo peak demand, not PJM requirement.

• Effective 1-1-2014, remaining capacity that was previously MLR'd will be allocated as follows:
 1) Remaining Mone Share => 100% to OPCo
 2) SEPA => 100% to APCo

AEP SYSTEM - EAST ZONE
Projected Summer Peak Demands, Generating Capabilities, and Margins

Summer Season	Peak Demand - MW				Capacity - MW			Reserve Margin		Reserve Margin		PJM ICAP Position				
	Inter-ruptible Demand (a)	DSM (b)	Net AEP Internal Demand (c) (1)+(2)-(3)	Net Other Committed Sales (d)	Existing Capacity & Planned Changes (e)	Committed Net Sales (f)	Planned Capacity Additions Name/Identifier (g)	MW (h)	Annual Purch. (i)	Total Capacity (j) (5)+(6)-(7)-(8)	Before Interruptible w/ New Capacity MW (13)-(9)-(10)	% of Demand (14)-(12)/(10)	After Interruptible w/ New Capacity MW (15)-(12)-(11)	% of Demand (16)-(13)/(10)	Reserve % Required By PJM	Position MW
2013	21,005	(526)	(274)	20,205	27,850	662	100 MW Wind	13	0	27,291	5,512	25.3	6,038	28.4	23.3	1,087
2014																
2015																
2016																
2017																

Notes: (a) Based on (January 2013) Load Forecast (not coincident with PJM's peak)

(b) Load forecasting view of Interruptible Demand.

(c) Existing plus approved and projected "Passive" EE, and IVV.

(d) Includes:

Buckeye-Cardinal commitment

(e) Reflects the following summer capability assumptions:

- AEP PPR share of OVEC capacity
- Hydro plants, including Summersville, are rated at average August output.
- Wind Farm PIPAS
- EFFICIENCY IMPROVEMENTS:
- 2013: Conesville 4.0 MW (turbine)
- FGD DERATES.
- 2013: Citty Creek 1-6: 2 MW each

(f) Includes:

- Contractual share of remaining Mone capacity
- Sale of 13 MW in 2013 to Duke
- RPM Auction Sales of 700 MW (ICAP) in 2013
- Anderson/Frank Capacity Offset (MW Vary Year to Year)
- 3.6 MW capacity credit from SEPA's Philpot Dam via Blue Ridge contract

(g) New wind and solar capacity value is assumed to be 13% and 38% of nameplate

(h) Any capacity deficiencies will be satisfied with short-term capacity purchases

Kentucky Power Company

REQUEST

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

RESPONSE

Please see table below for a list identifying scheduled outages or retirements of generating capacity:

Big Sandy Plant

<u>Year</u>	<u>Unit 1</u>	<u>Unit 2</u>
2013	More than 4 weeks	4 weeks
2013	More than 4 weeks	More than 4 weeks
2014	4 weeks	4 weeks
2014	More than 4 weeks	More than 4 weeks
2015	* No Outage Scheduled	No Outage Scheduled/Planned Retirement
2016	* No Outage Scheduled	Retired
2017	* No Outage Scheduled	Retired

* Possible retirement or gas conversion pending completion of RFP evaluation

Mitchell Plant

<u>Year</u>	<u>Unit 1</u>	<u>Unit 2</u>
2014	4 weeks	No Outage Scheduled
2015	4 weeks	More than 4 weeks
2016	More than 4 weeks	Less than 4 weeks
2017	Less than 4 weeks	Less than 4 weeks

WITNESS: Lila P. Munsey

Kentucky Power Company

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. Please provide the information for both Kentucky Power Company individually and the AEP-East Power Pool (pursuant to the Commission's December 13, 2004 Order in the Rockport UPSA extension, Case No. 2004-00420).

RESPONSE

Currently, the generating facilities of Kentucky Power Company (KPCo) are integrated with the generating facilities of the other AEP System-East operating companies to supply the total electric requirements of all customers of those combined operating companies. Therefore, the evaluation of the adequacy and reliability of generating capability to meet current and projected power demands of KPCo's customers must be based on consideration of the total generating capability of the AEP System-East in relation to the aggregate AEP System-East load. However, under the AEP Interconnection Agreement (which represents the "pool agreement" among the four major eastern AEP operating companies), each member of the pool is responsible for a proportionate share of the aggregate pool generating capacity. Each member must provide, over time, sufficient generating capacity to meet its own internal load requirements plus an adequate reserve margin.

On December 17, 2010, pursuant to Article 13 of the FERC – approved AEP Interconnection Agreement ("Interconnection Agreement"), each of the AEP Pool members provided written notice to the other members, and to American Electric Power Service Corporation ("AEPSC"), the AEP Pool's agent, of the scheduled termination of the Interconnection Agreement, effective January 1, 2014. Because of the scheduled termination of the Interconnection Agreement, affiliate additions are not being provided.

KPCo's current plans for capacity additions are pending approval from the Kentucky Public Service Commission in Case Nos. 2012-00578 and 2013-00144.

WITNESS: Lila P Munsey

Kentucky Power Company

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 1 of this response.

WITNESS: Lila P Munsey

8(a) All quantities represent metered values.

<u>Received from (MWh):</u>	<u>2007</u> (Actual)	<u>2008</u> (Actual)	<u>2009</u> (Actual)	<u>2010</u> (Actual)	<u>2011</u> (Actual)	<u>2012</u> (Actual)	<u>2013-2017</u>
Appalachian Power (1)	7,280,995	7,826,055	4,637,687	5,042,019	4,230,880	4,338,641	(4)
Ohio Power (1)	7,782,679	8,832,135	10,872,502	11,316,622	11,393,398	10,644,478	(4)
East Ky Power Coop	324,865	402,847	481,140	412,663	510,543	394,193	(4)
LGE(Kentucky Utilities)	600,592	810,871	933,540	884,267	780,095	730,063	(4)
TVA	390,216	448,365	523,823	604,964	654,875	551,305	(4)
Illinois Power Co. (2)	38,216	33,190	35,408	46,376	59,956	136,798	(5)
Illinois Power Co. (3)	24,485	23,629	16,769	20,742	26,552	101,471	(5)
Big Sandy Generating Plant	7,533,223	6,021,182	6,262,165	6,552,258	6,372,925	2,661,344	3,711,000

8(b) All quantities represent metered values.

<u>Delivered to (MWh):</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013-2017</u>
Appalachian Power (1)	15,501,979	15,917,326	15,589,080	16,340,364	15,816,607	11,673,720	(4)
Ohio Power (1)	257,462	360,333	465,000	466,832	494,931	526,005	(4)
East Ky Power Coop	277,818	213,189	154,558	154,000	176,721	206,810	(4)
LGE(Kentucky Utilities)	370	14	11	23	1	36	(4)
TVA	6,050	62	0	0	1	0	(4)
Illinois Power Co. (2)	0	0	0	0	0	0	(5)
Illinois Power Co. (3)	0	0	0	0	0	0	(5)
Vanceburg and Olive Hill	101,705	101,657	95,284	103,058	95,607	95,525	(6)

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 2012 actuals.

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

(6) This is a 3rd Party Firm Load that is served by Kentucky Power

Kentucky Power Company

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

- c. The maximum amount of electric energy that can be transmitted through a transmission network is a function of the level 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 Kentucky Power transmission system capacity is designed to serve the existing and projected load. It is also designed to reliably serve the load for any single contingency outage of a line, transformer or generator. The existing transmission system together with the capacity additions listed in response to Item No. 9 will provide adequate capacity to serve the existing and projected loads shown in the table below.

- d. The actual summer and winter peak demands are shown below for 2012/2013. In addition, forecasted summer and winter peak demands for 2013 through 2017 are also shown in the table on page 2 of this response.

Kentucky Power Company
Seasonal Peak Demand
Actual 2012 and Forecast 2013-2017

Year	Summer Peak Demand (MW)	Preceding Winter Peak Demand (MW)
2012	1,183*	1,378*
2013	1,208	1,409*
2014	1,214	1,503
2015	1,220	1,505
2016	1,219	1,500
2017	1,218	1,501

WITNESS: Lila P Munsey

Kentucky Power Company

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

The following projects are planned for the Kentucky Power Company transmission system:

Hazard Area Improvements Project – This project, which includes the Bonnyman-Softshell line, will provide another 138 kV source into the Hazard area of eastern Kentucky. Station and line work will be required. This project will provide single contingency reliability to the Hazard area subtransmission system and double contingency reliability to the area 138 kV system. Current projected in-service date is December 2014.

Big Sandy Area Improvements – This project may install a second 765/345 kV transformer at the Baker 765 kV station. This project will provide double contingency reliability to the critical transmission system. The anticipated in-service date would be June 2015.

Thelma and Busseyville Station Upgrades – This project will address thermal overload concerns on the Big Sandy-Thelma 138kV circuit. Station and line work will be required. This project will increase the thermal rating on the Big Sandy-Thelma 138kV line. Current projected in-service date is June 2015.

Johns Creek and Stone Station Upgrades – This project will install two new 138 kV circuit breakers at Johns Creek and one 138kV circuit breaker at Stone Station. This project will provide additional reliability to customers, operational flexibility, and voltage support under contingency conditions. Current projected in-service date is June 2015.

Dorton 138kV Circuit Breaker Project- This project will install three 138kV circuit breakers and one circuit switcher at Dorton Station. The project will solve thermal loading concerns and operational reliability concerns. The current projected in-service date is June 2015.

Cedar Creek Station Upgrades – This project will install two new 138 kV circuit breakers at Cedar Creek Station. This project will provide operational benefits and provide voltage support for single contingency line outages. Current projected in-service date is April 2016.

WITNESS: Lila P Munsey