Case # ER-2004-0570

JULY 2004

EMPIRE

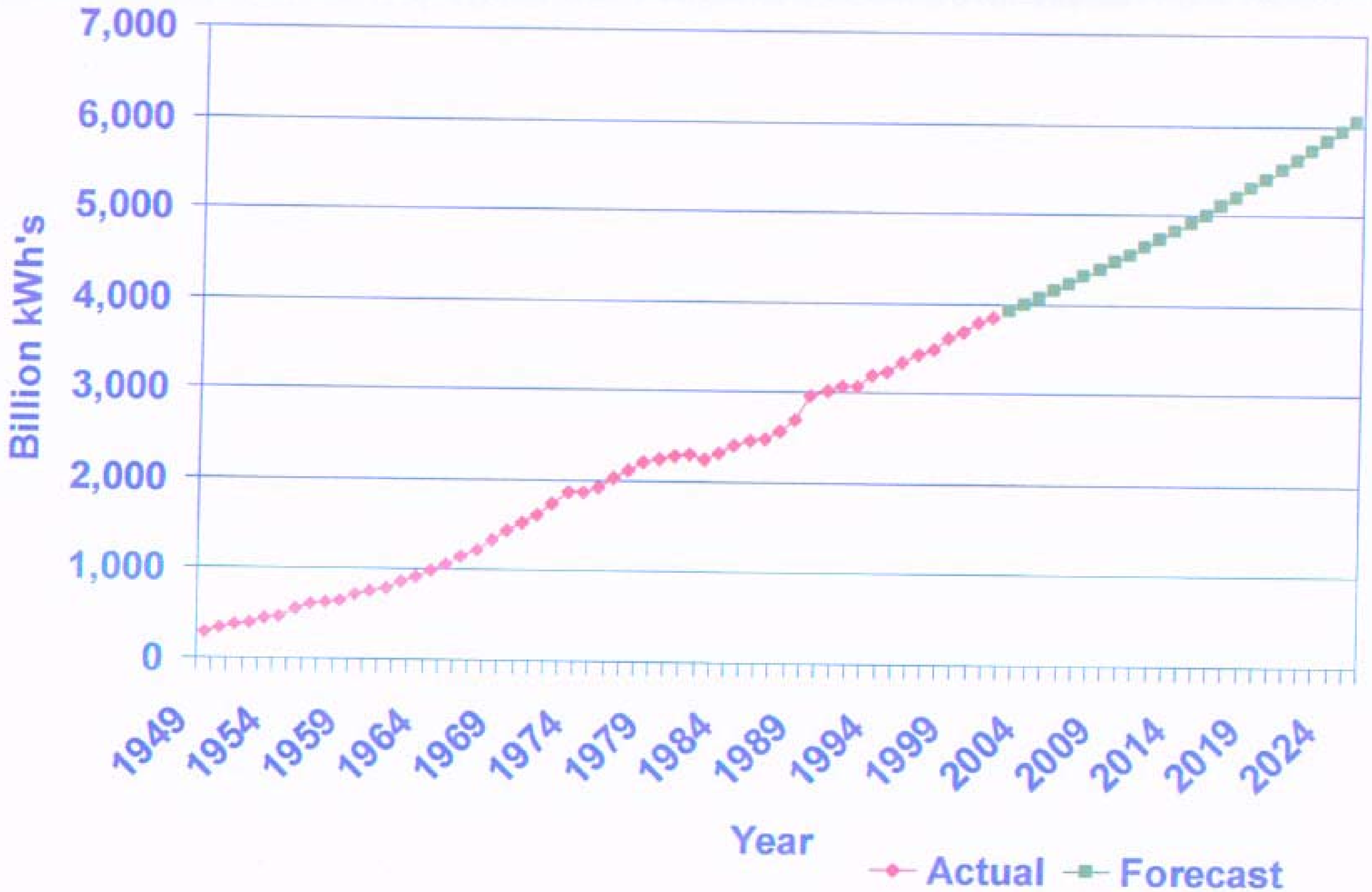
SERVICES YOU COUNT ON

FILED
JUL 3 0 2004
Missouri Public Service Commission

Brad Beecher, P.E.

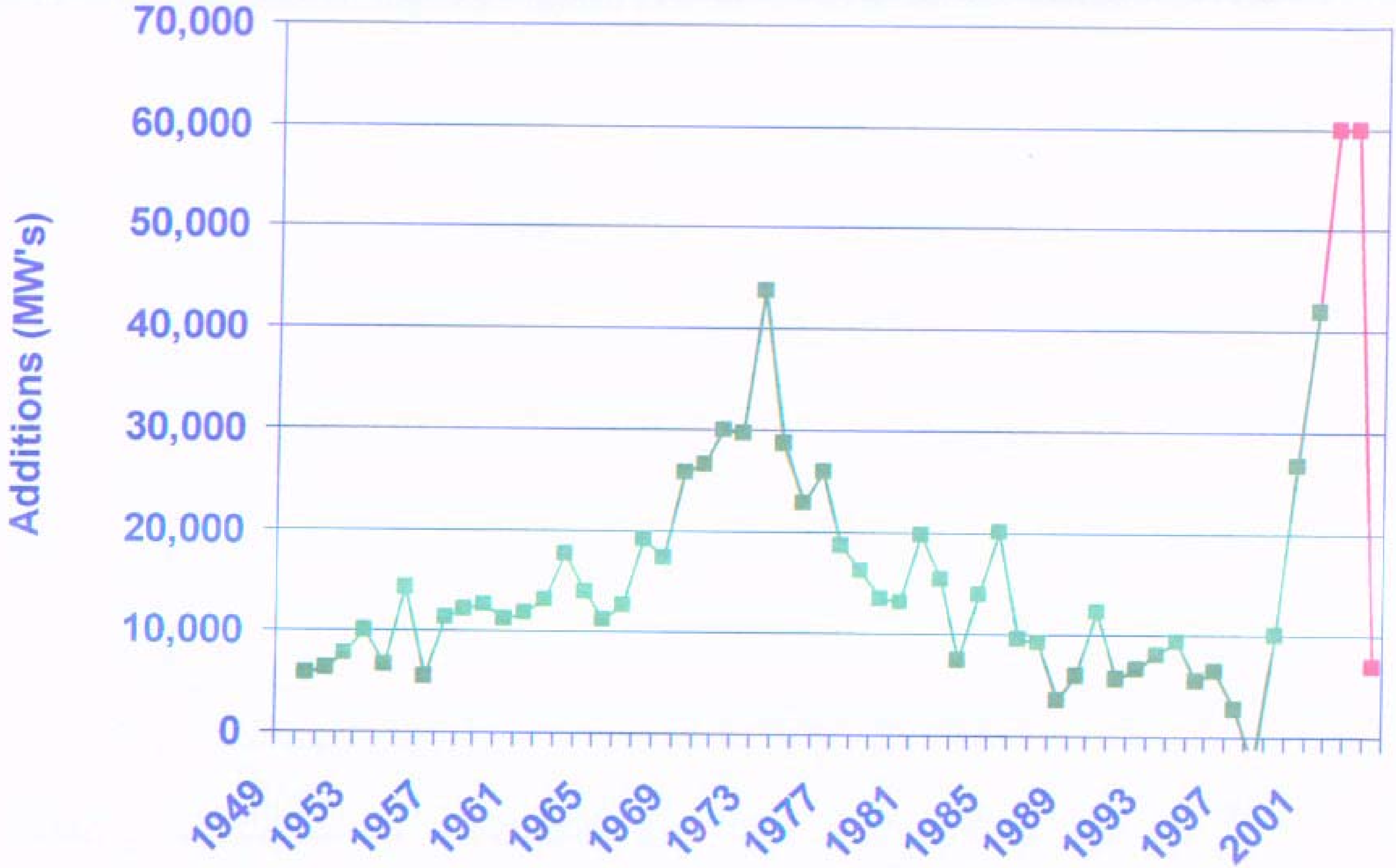
Empire Exhibit No. 1
Case No(s). ER-2004-0570
Date 7/26/04 Rptr JL

U.S. Generation by Year



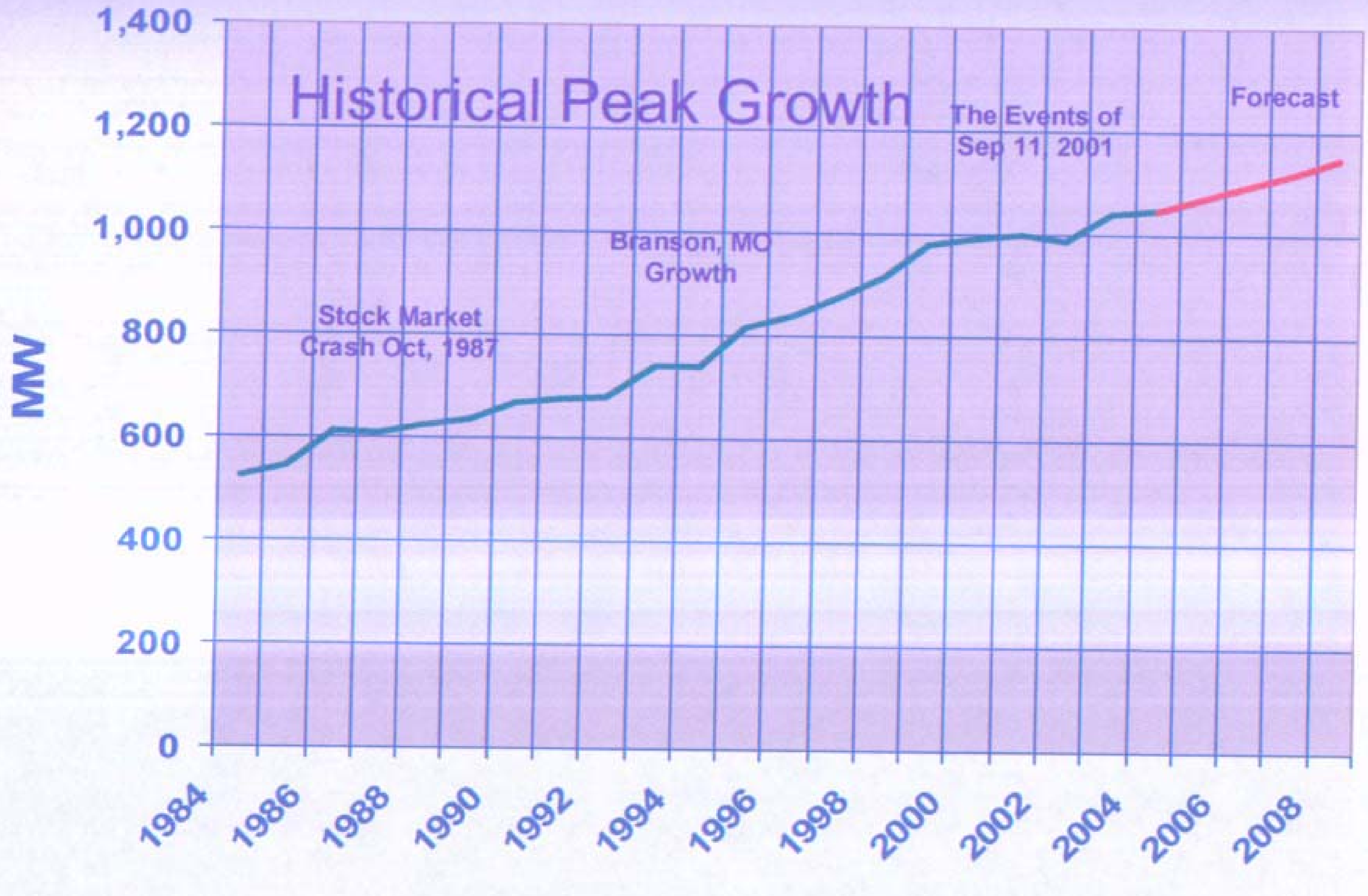
Source: http://www.eia.doe.gov/emeu/aer/txt/ptb0802a.html
and EIA 2003 Annual Energy Outlook

Generation Plant Additions



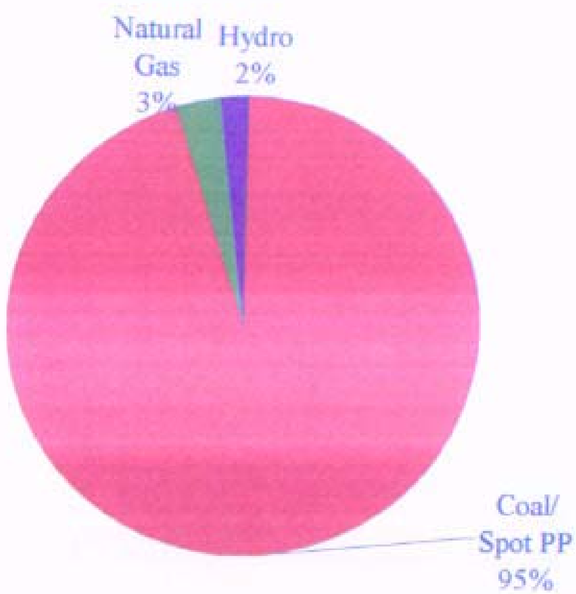
Source: http://www.eia.doe.gov/emeu/aer/txt/ptb0802a.html

Empire's Demand & Energy Forecast 2004 - 2008



Empire - Sources of Energy

1992



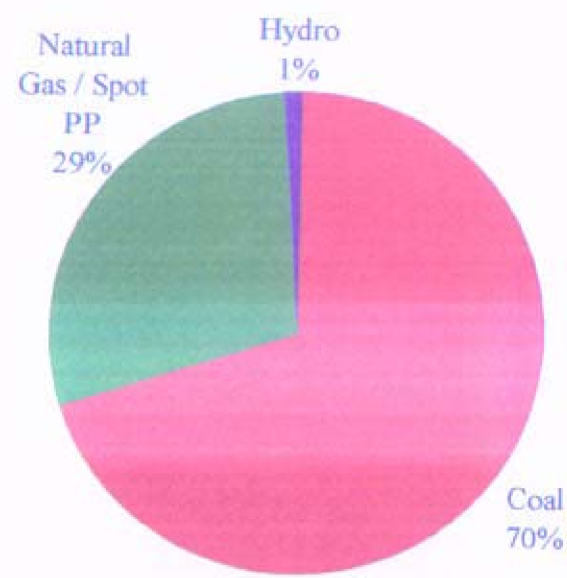
1995 State Line 1 CT

1997 State Line 2 CT

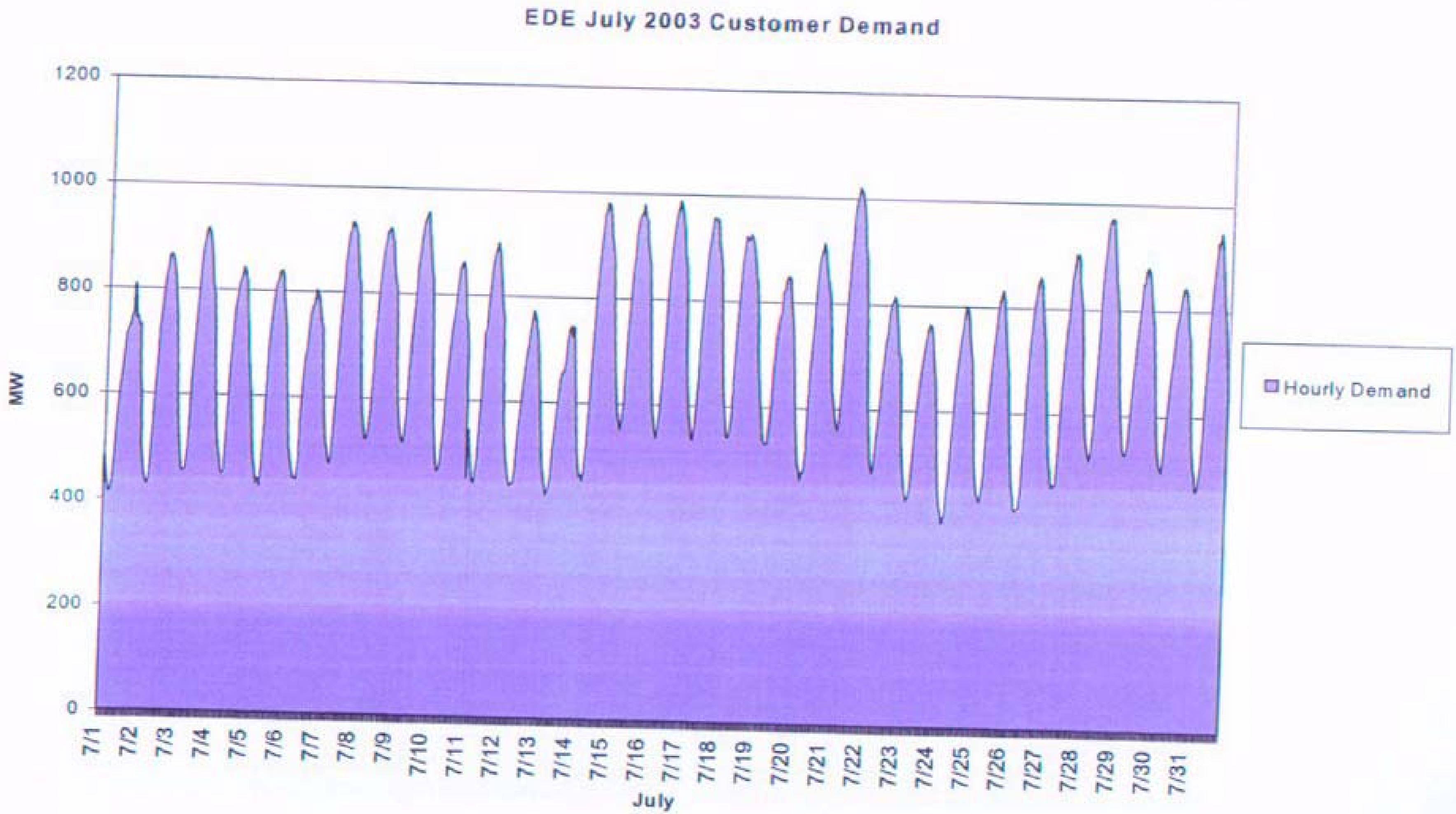
2001 State Line CC

2003 EC 3 & 4 CT's

2003



Buildup of Load Duration Curve



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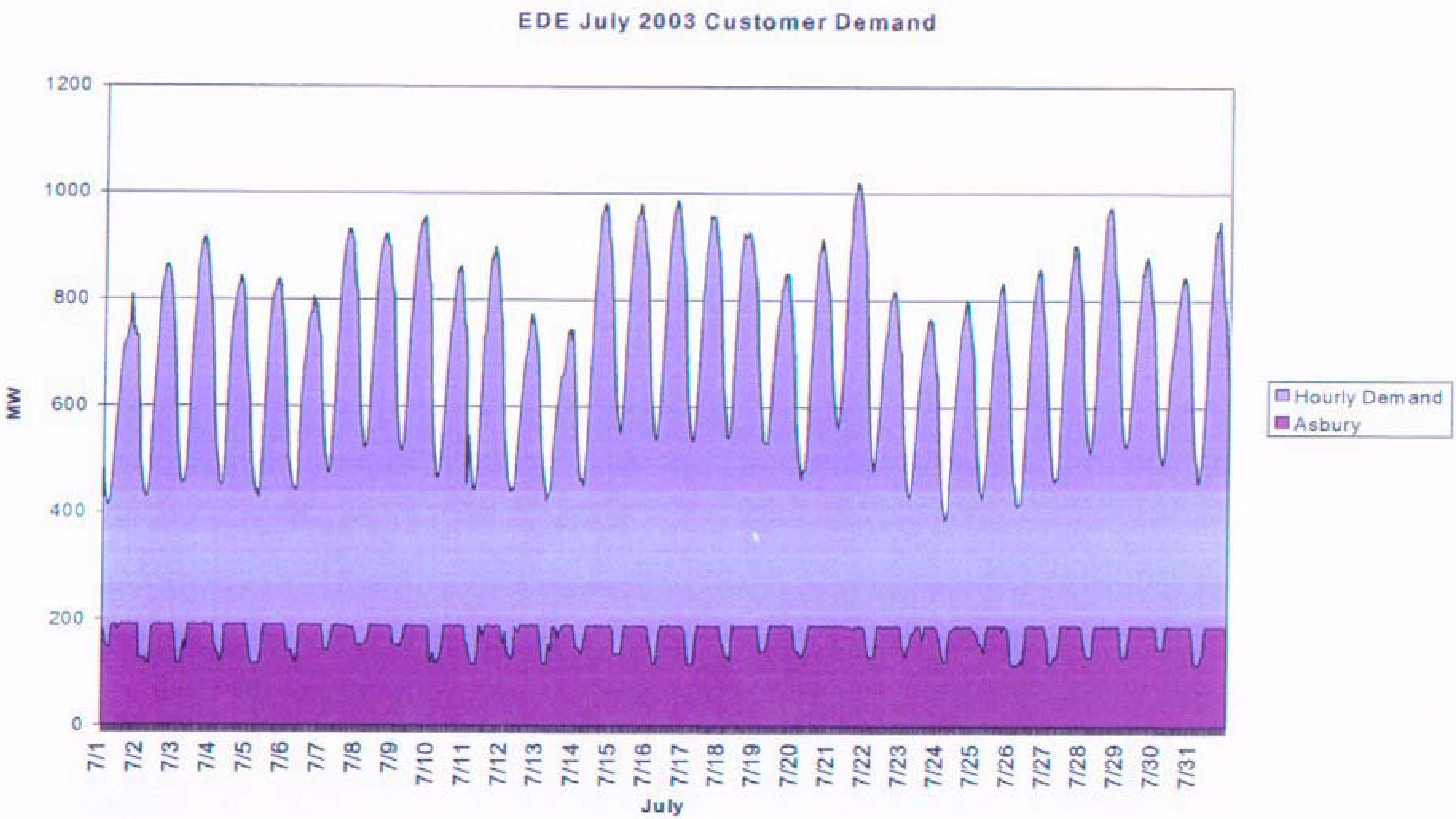
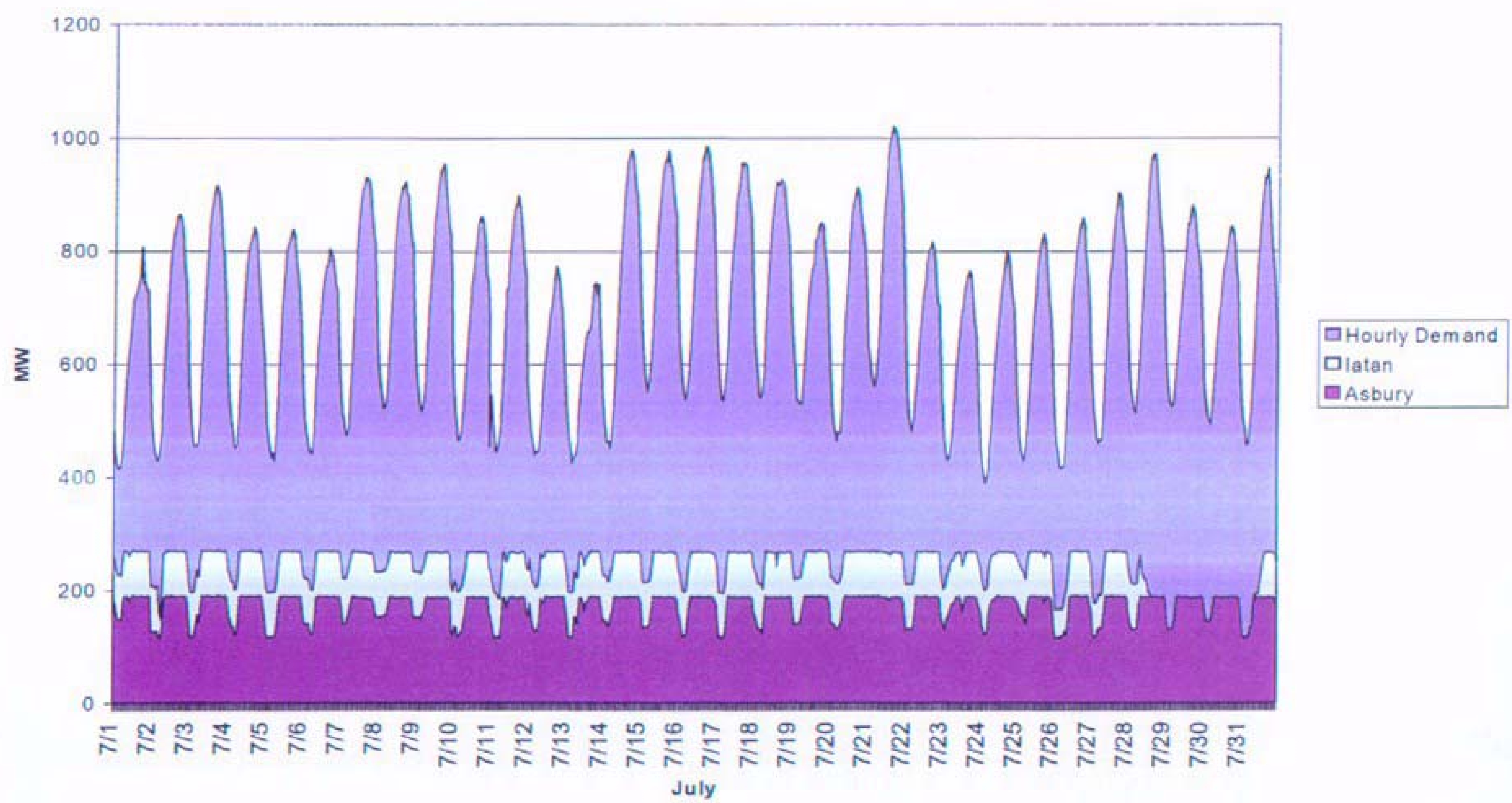
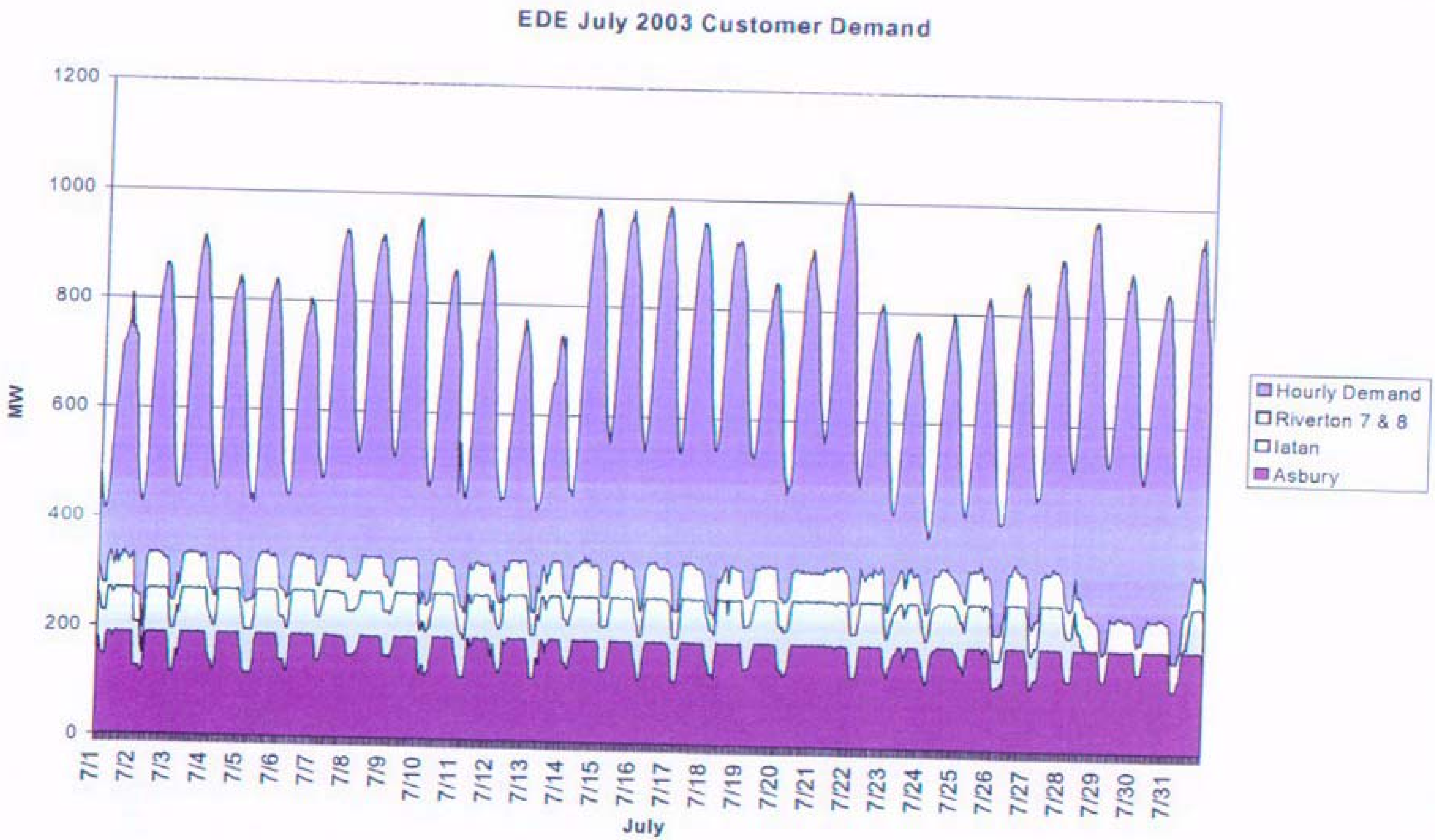


Buildup of Load Duration Curve

EDE July 2003 Customer Demand

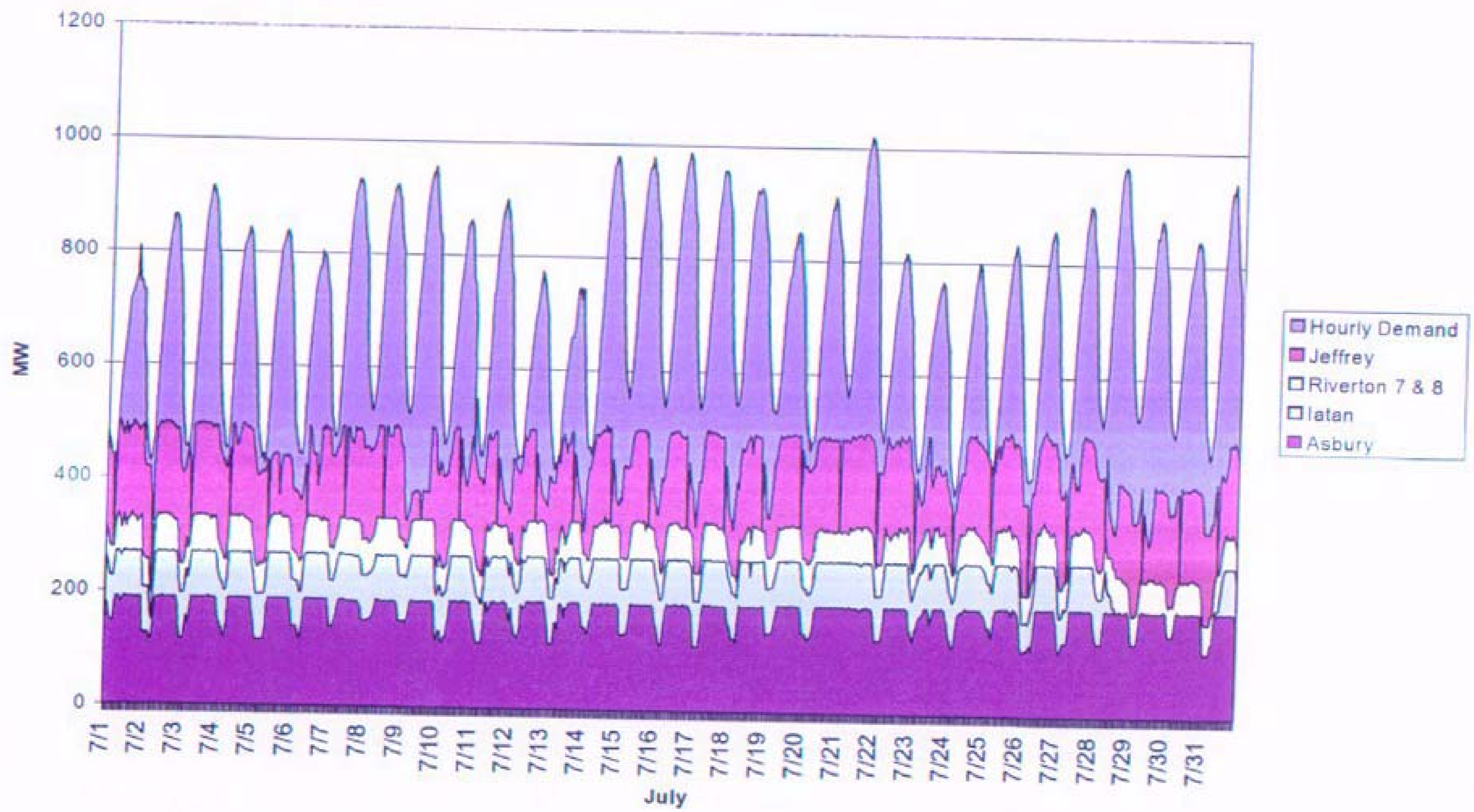


Buildup of Load Duration Curve

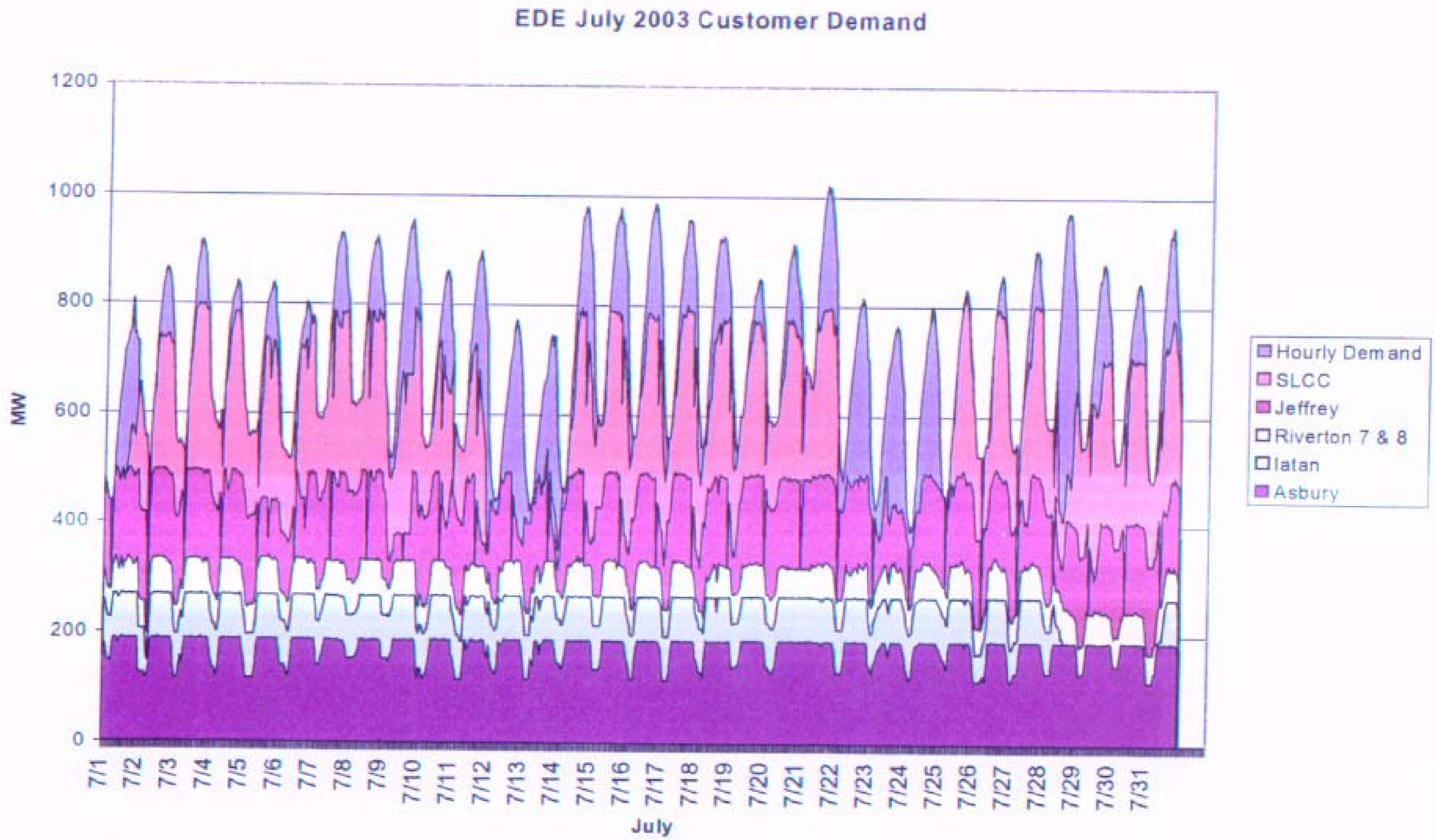


Buildup of Load Duration Curve

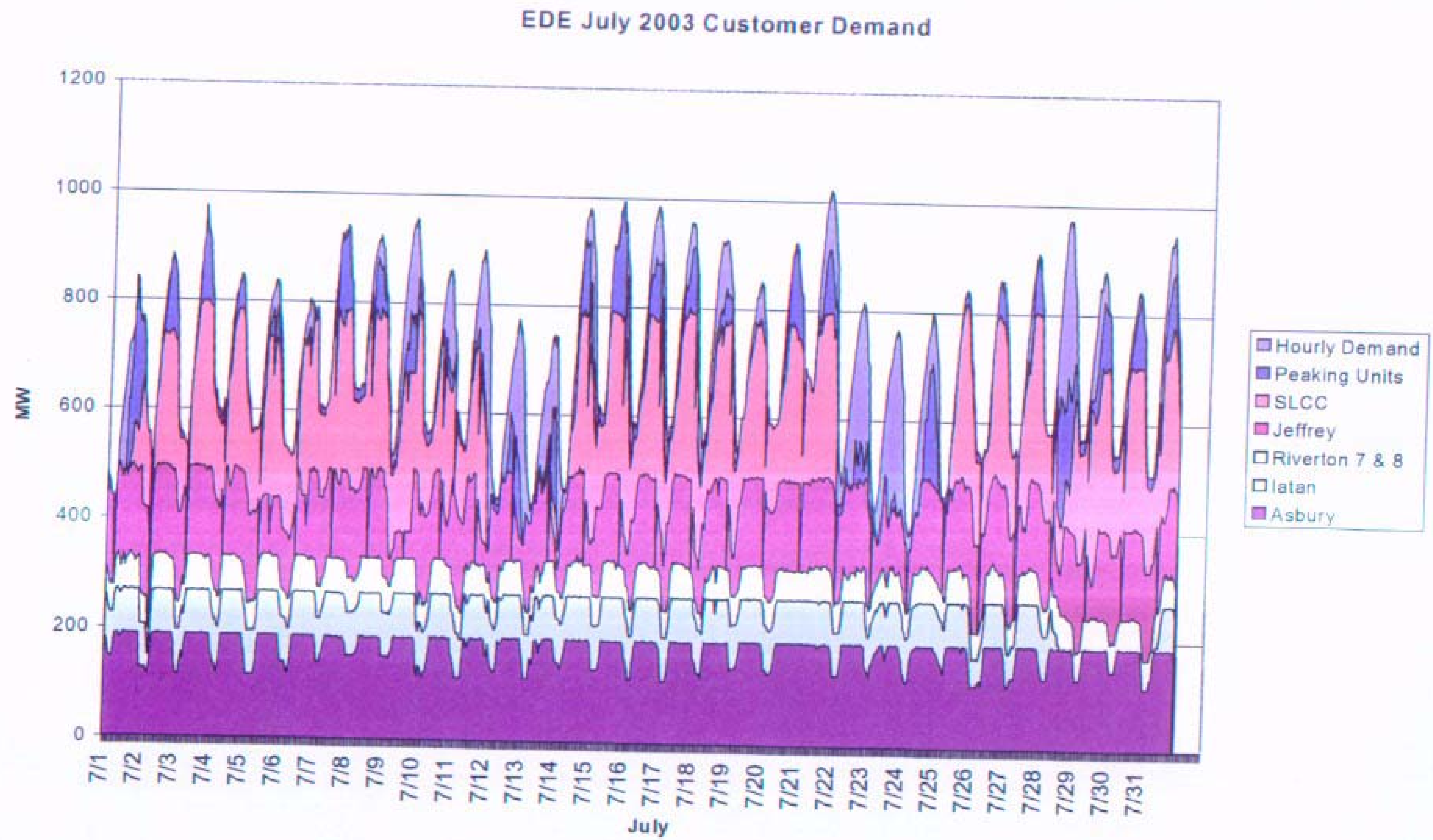
EDE July 2003 Customer Demand



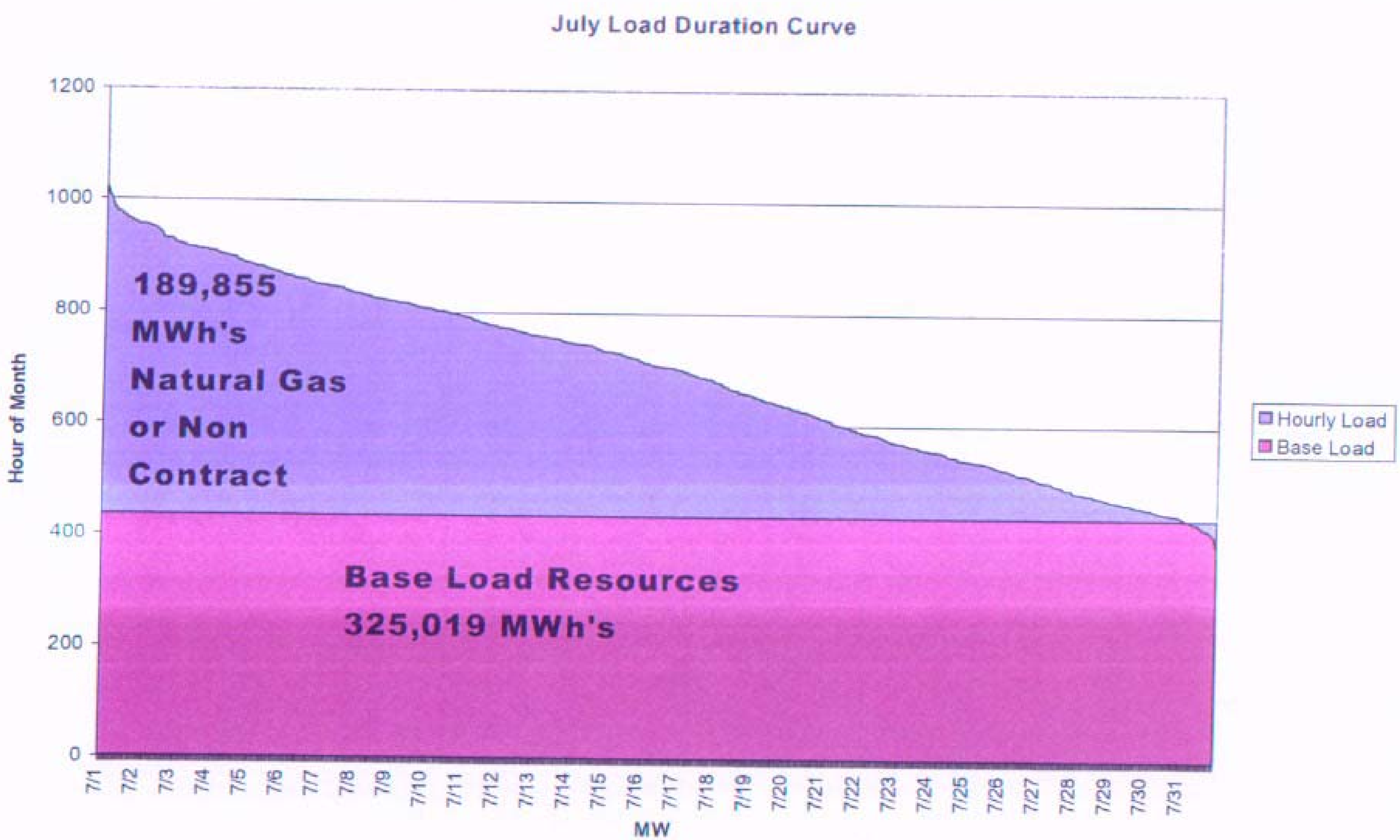
Buildup of Load Duration Curve



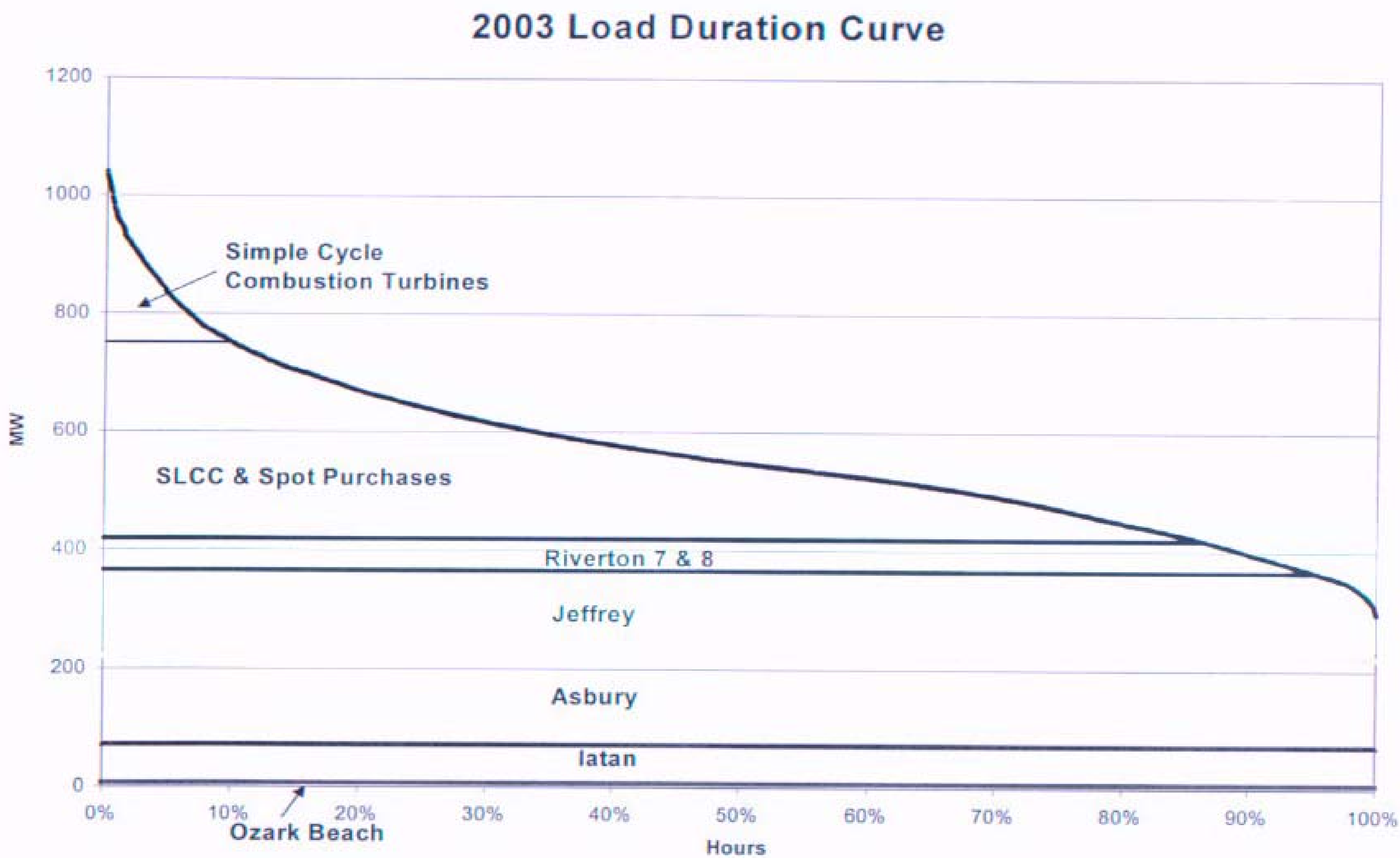
Buildup of Load Duration Curve



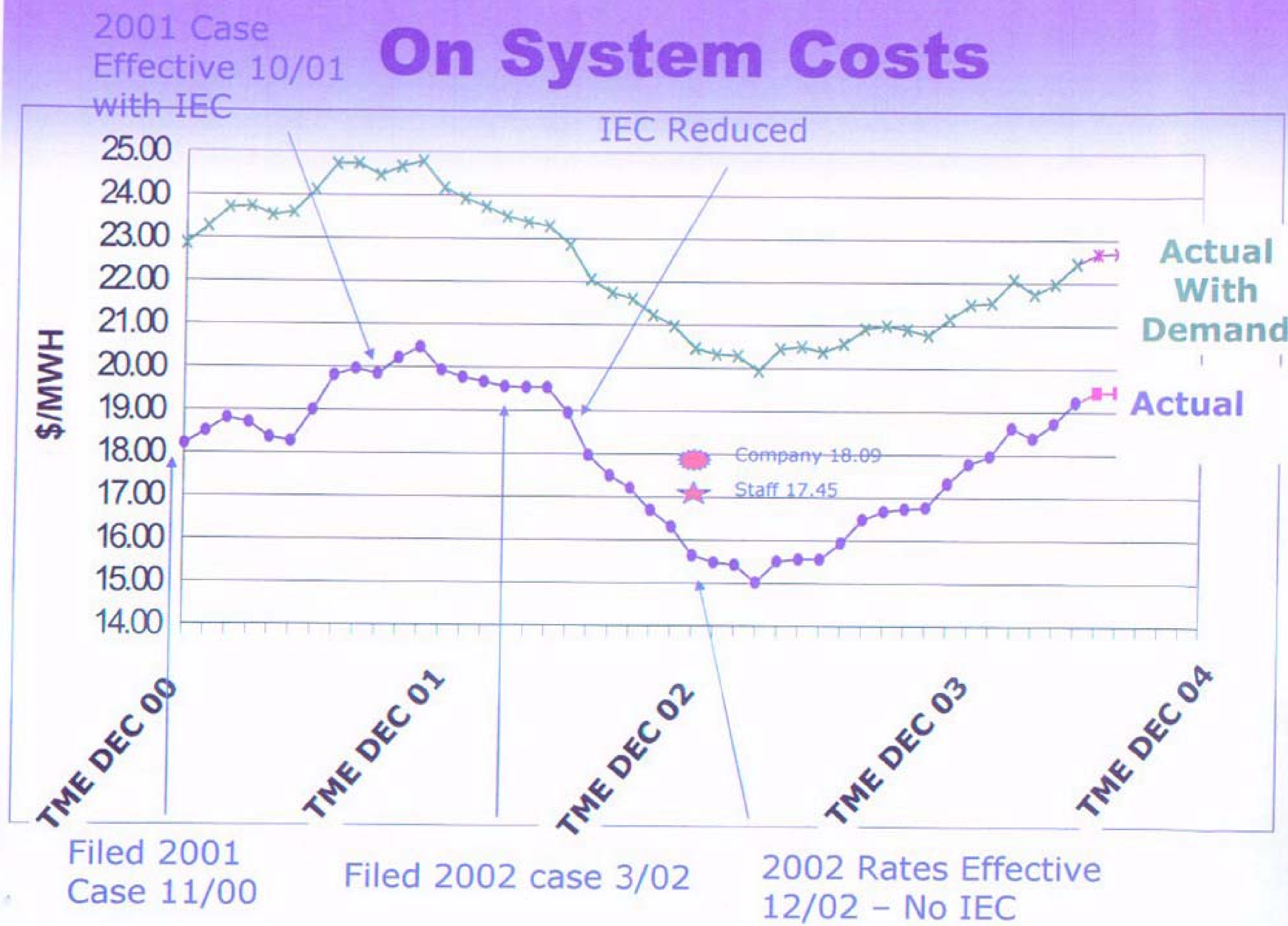
Buildup of Load Duration Curve

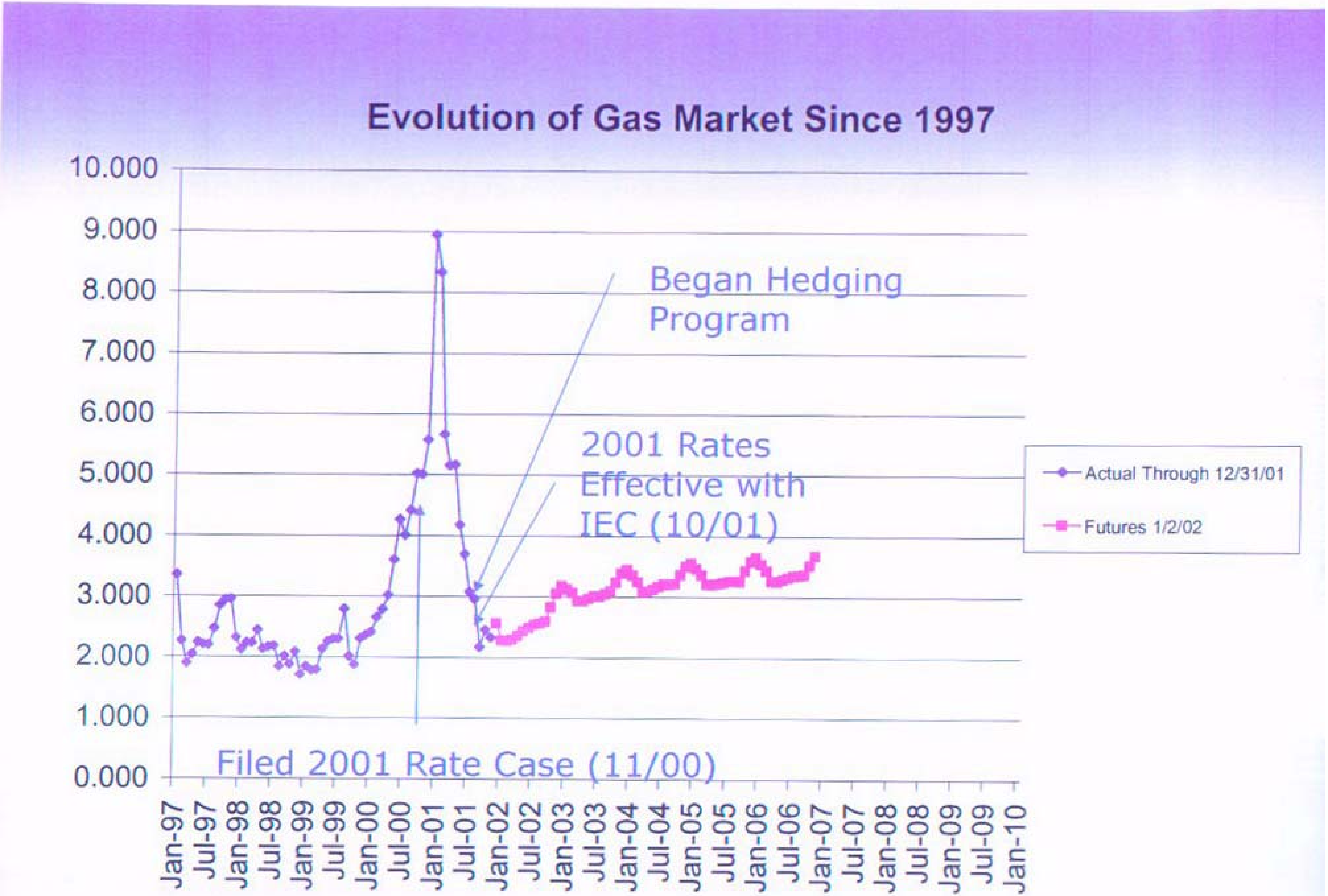


Load Duration Curve



On System Costs



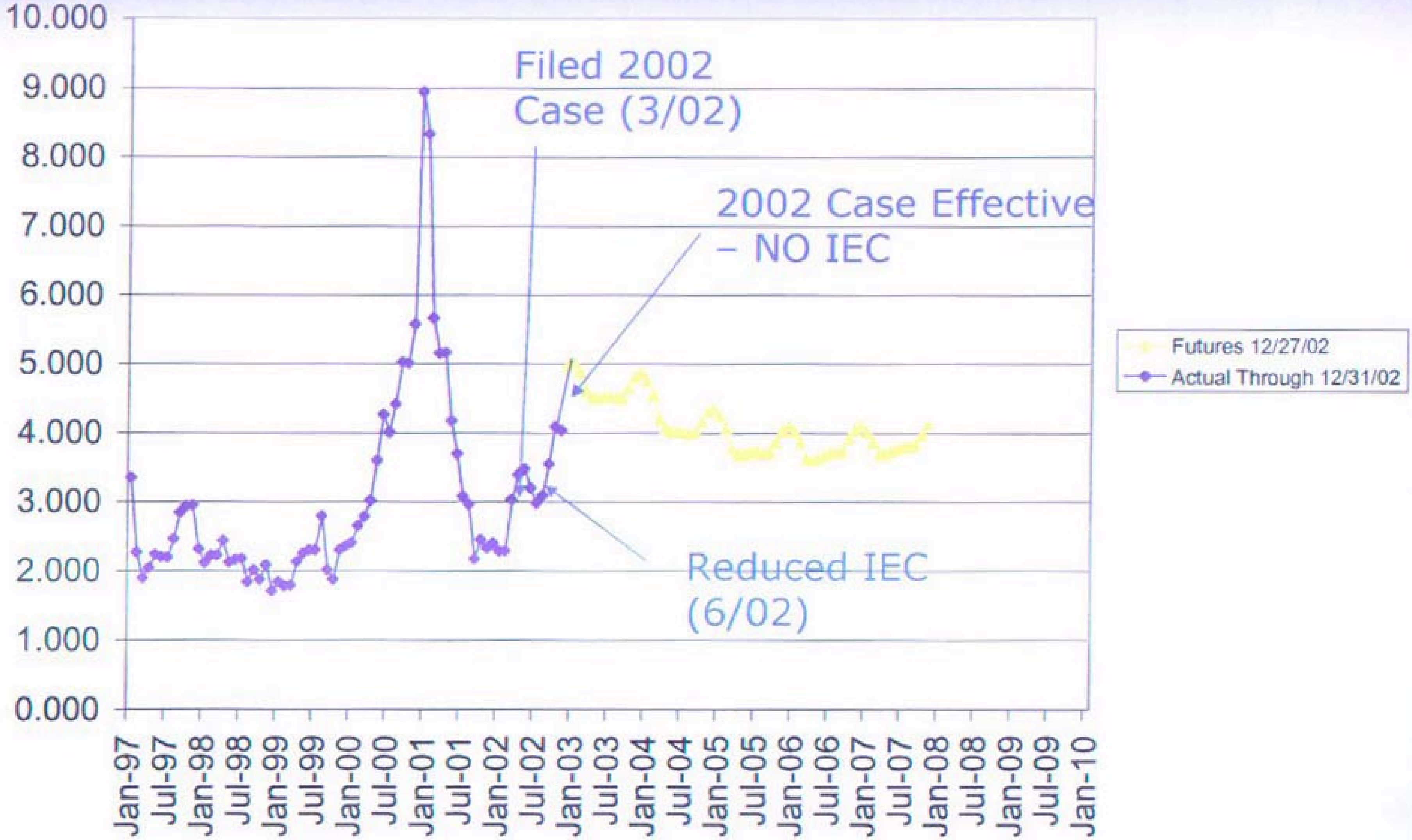

Evolution of Gas Market Since 1997
10.000
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
Began Hedging Program
2001 Rates Effective with IEC (10/01)
Filed 2001 Rate Case (11/00)
Jan-97 Jul-97 Jan-98 Jul-98 Jan-99 Jul-99 Jan-00 Jul-00 Jan-01 Jul-01 Jan-02 Jul-02 Jan-03 Jul-03 Jan-04 Jul-04 Jan-05 Jul-05 Jan-06 Jul-06 Jan-07 Jul-07 Jan-08 Jul-08 Jan-09 Jul-09 Jan-10
Actual Through 12/31/01
Futures 1/2/02

Risk Management Policy

Targets in 2002

- Utilizing approved hedging instruments
  - Fix 0-20% of projected 2006 gas requirements
  - Fix 20-40% of projected 2005 gas requirements
  - Fix 40-60% of projected 2004 gas requirements
  - Fix 60-80% of projected 2003 gas requirements

Evolution of Gas Market Since 1997

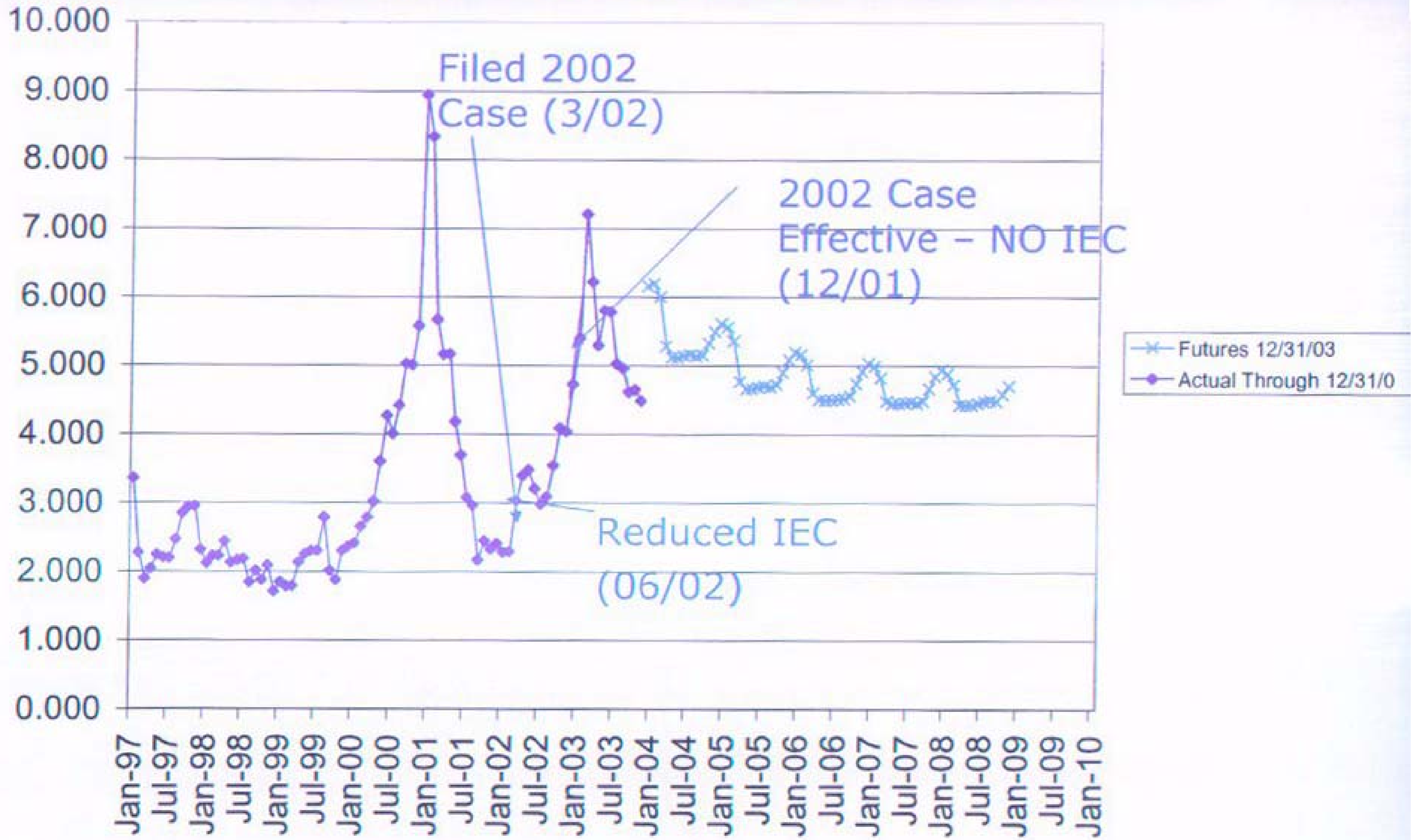


Risk Management Policy

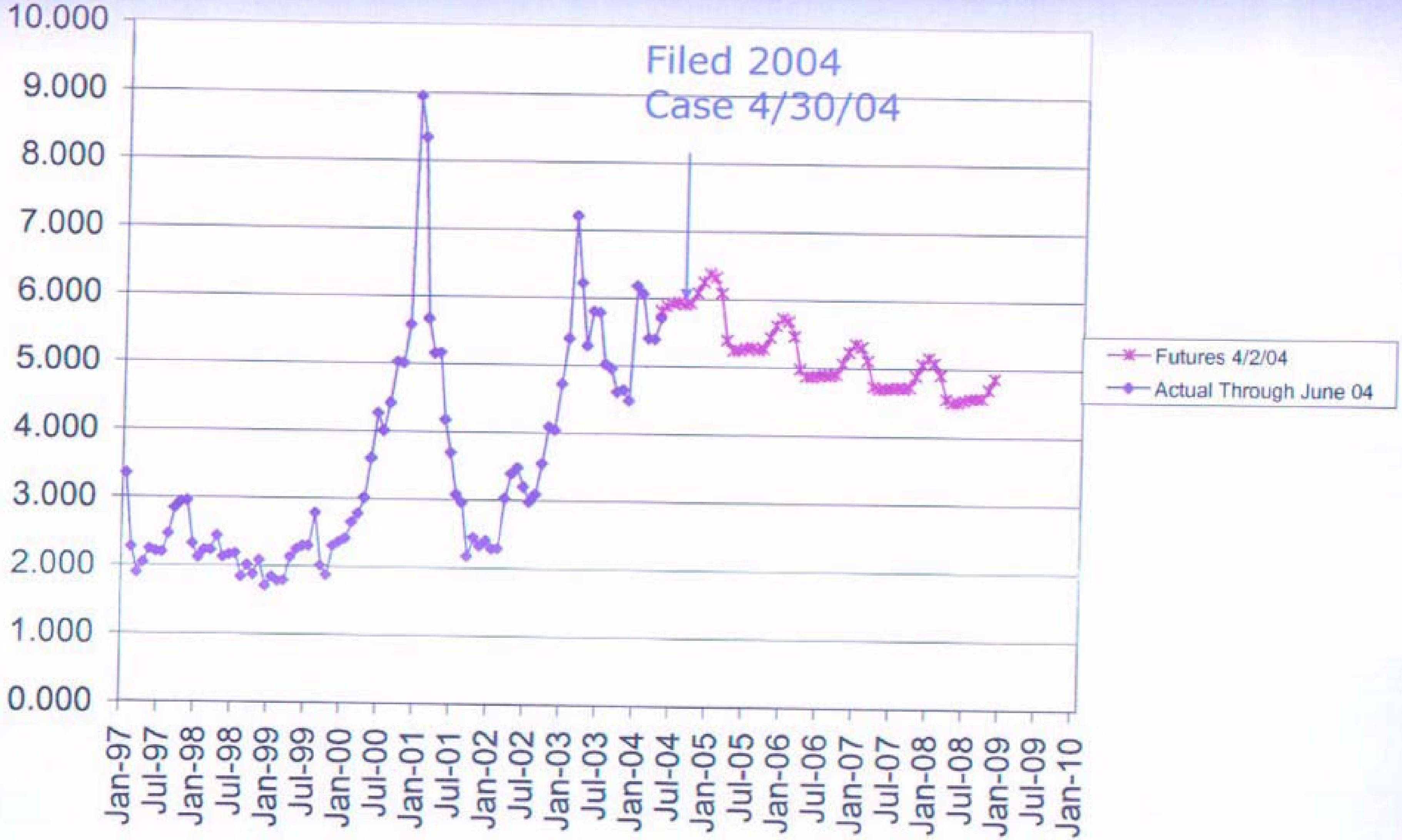
Targets in August 2003 (Revised)

- Utilizing approved hedging instruments
  - Fix 0-80% of projected 2007 gas requirements
  - Fix 20-80% of projected 2006 gas requirements
  - Fix 40-80% of projected 2005 gas requirements
  - Fix 60-80% of projected 2004 gas requirements

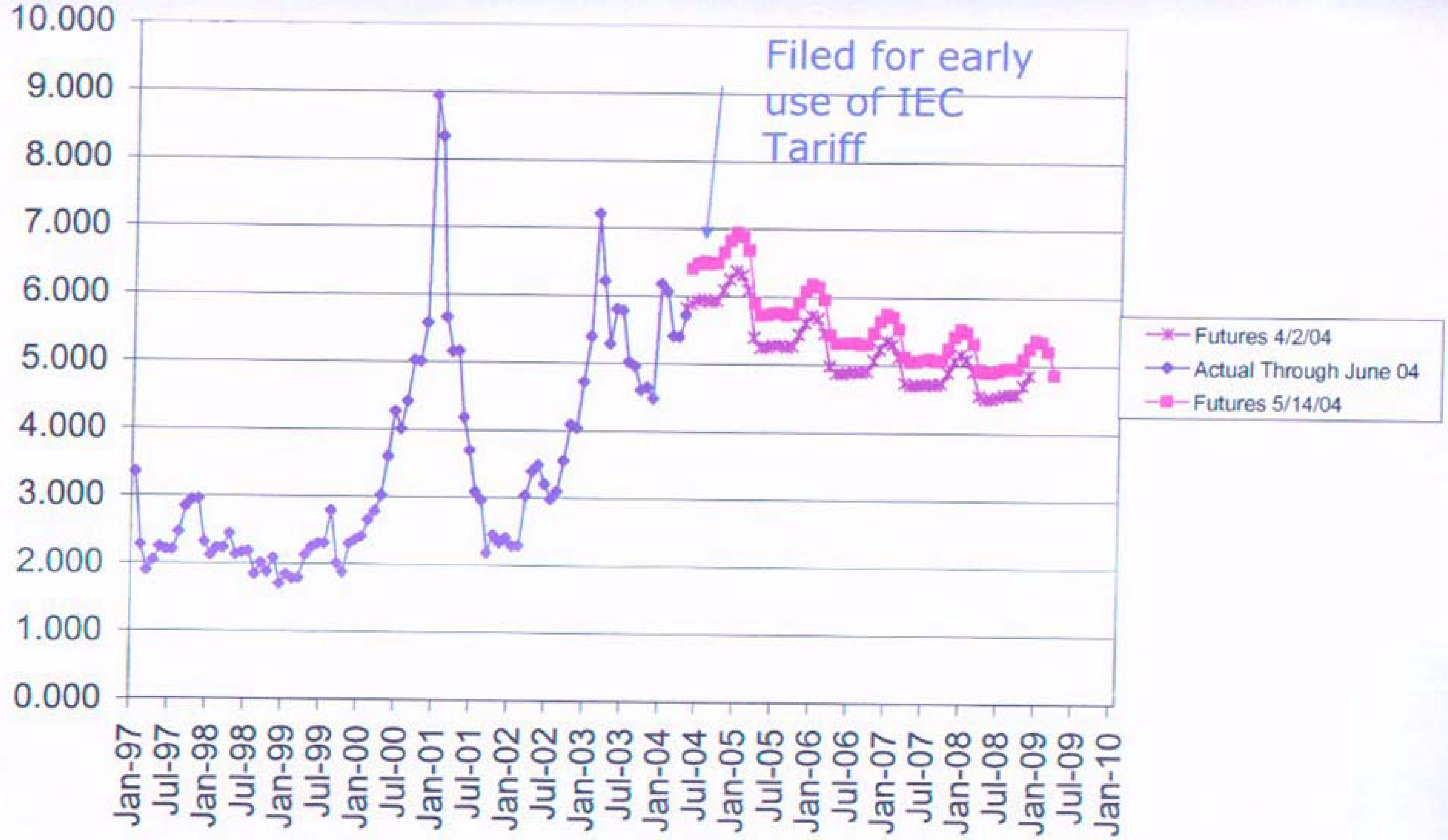
Evolution of Gas Market Since 1997

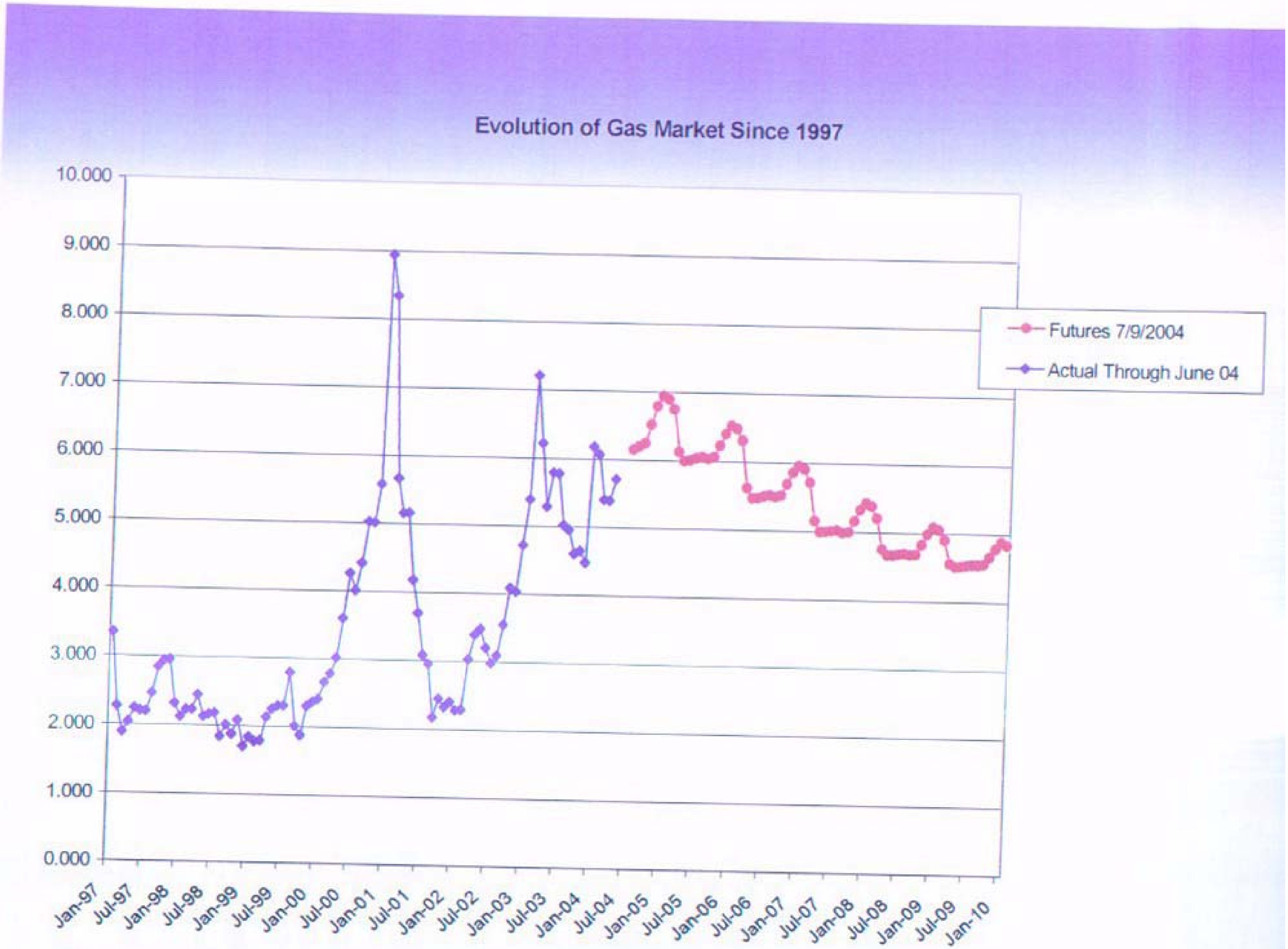


Evolution of Gas Market Since 1997



Evolution of Gas Market Since 1997




Evolution of Gas Market Since 1997
10.000
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
0.000
Jan-97
Jul-97
Jan-98
Jul-98
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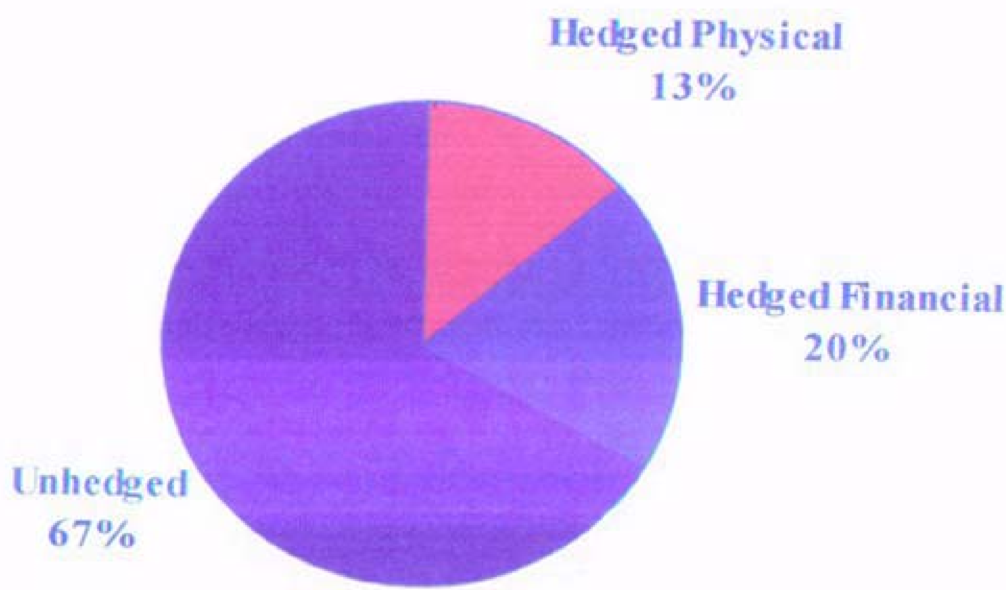
Jul-08
Jan-09
Jul-09
Jan-10
Futures 7/9/2004
Actual Through June 04

Risk Management Status

Aggregate 2002-2006 Position
as of July 8, 2002

61,457,128 MMBTU

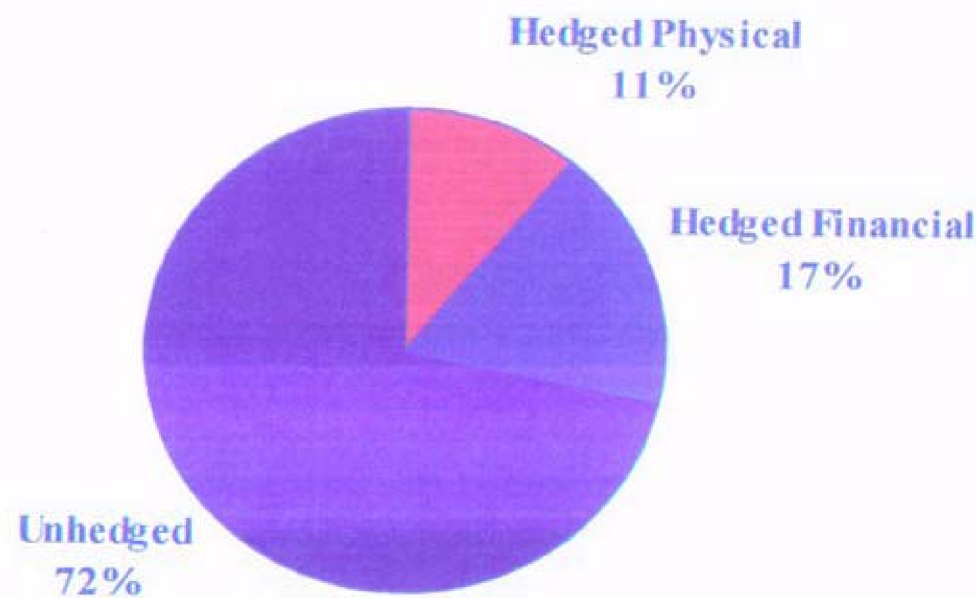


20,346,005MMBTU
@ $3.26/MMBTU

Risk Management Status

Aggregate 2003-2007 Position as of July 9, 2003

50,504,165 MMBTU

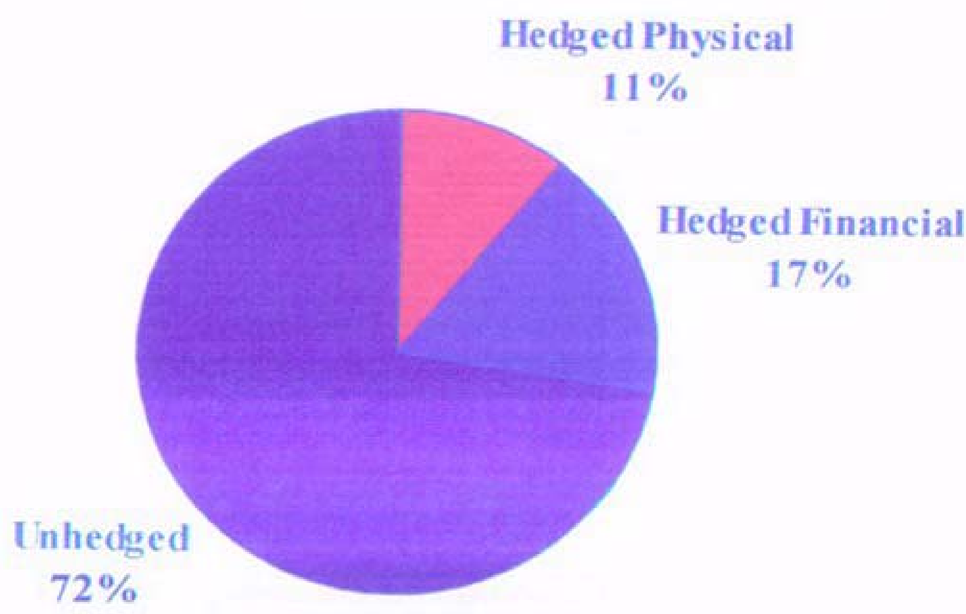


14,285,000MMBTU
@ $3.49/MMBTU

Risk Management Status

Aggregate 2004-2008 Position
as of July 9, 2004

50,096,530 MMBTU

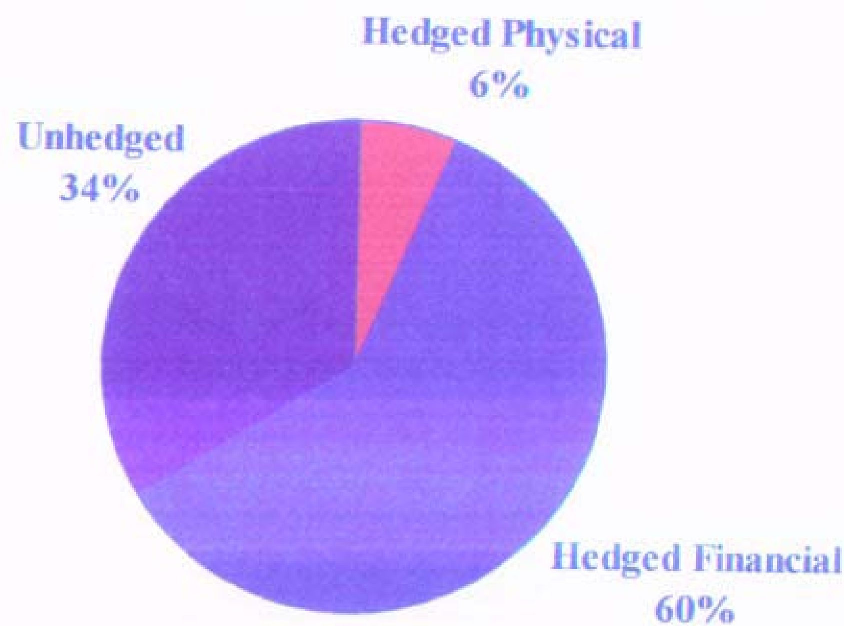


13,820,000MMBTU
@ $4.21/MMBTU

Risk Management Status

Balance of 2004 Position (August – December)

3,977,506 MMBTU

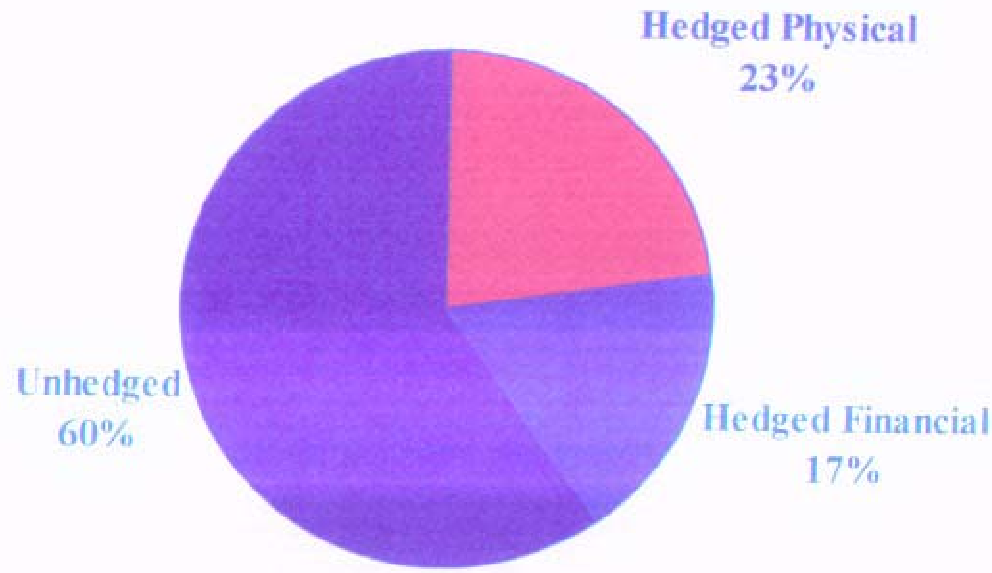


2,620,000 MMBTU
@ $3.272/MMBTU

Risk Management Status

2005 Position

10,513,865 MMBTU

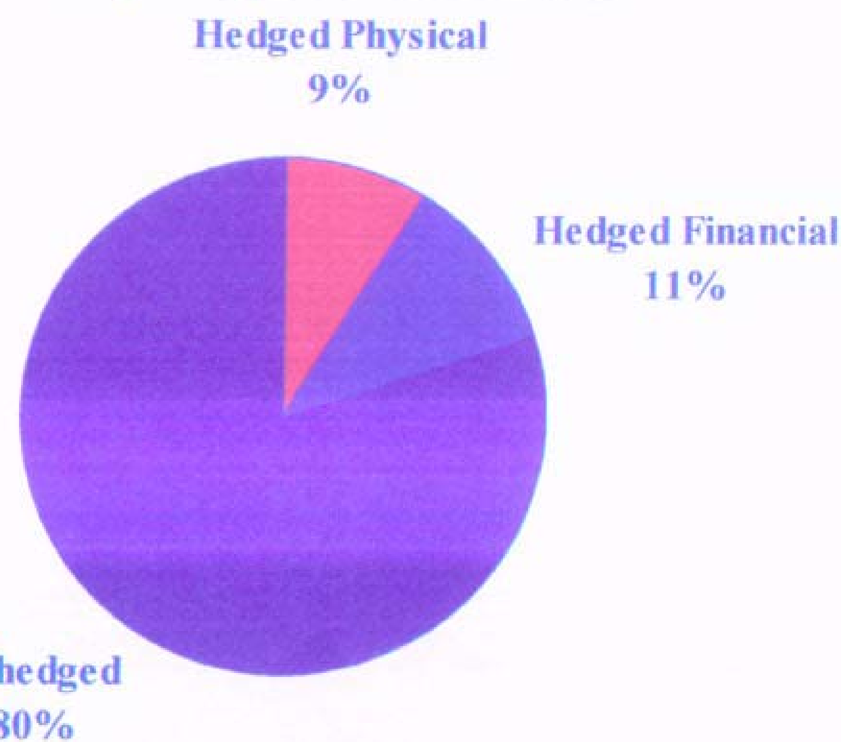


4,200,000MMBTU
@ $4.147/MMBTU

Risk Management Status

2006 Position

11,115,944 MMBTU

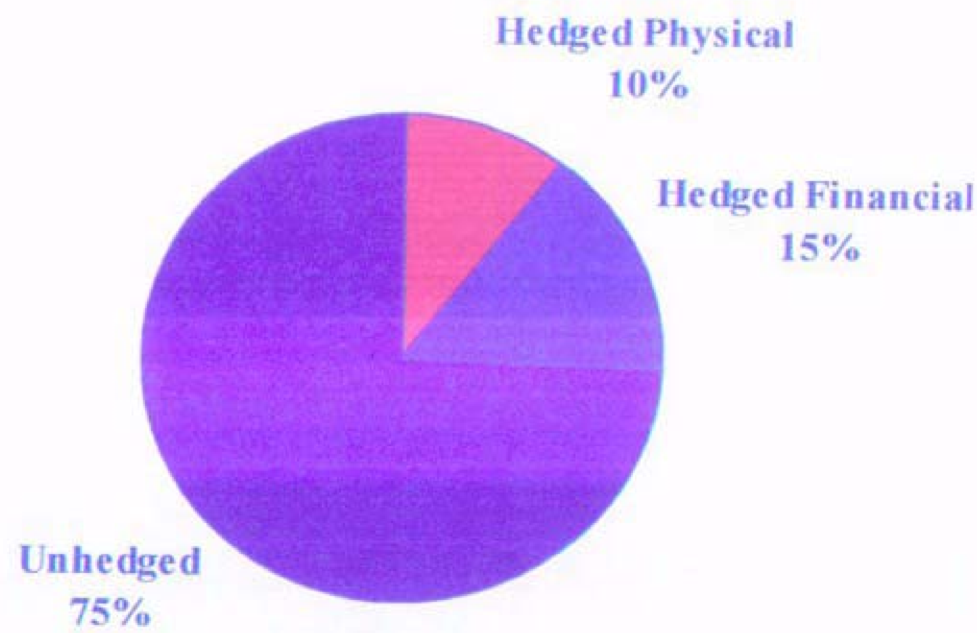


2,200,000MMBTU
@ $4.216MMBTU

Risk Management Status

2007 Position

11,739,629 MMBTU

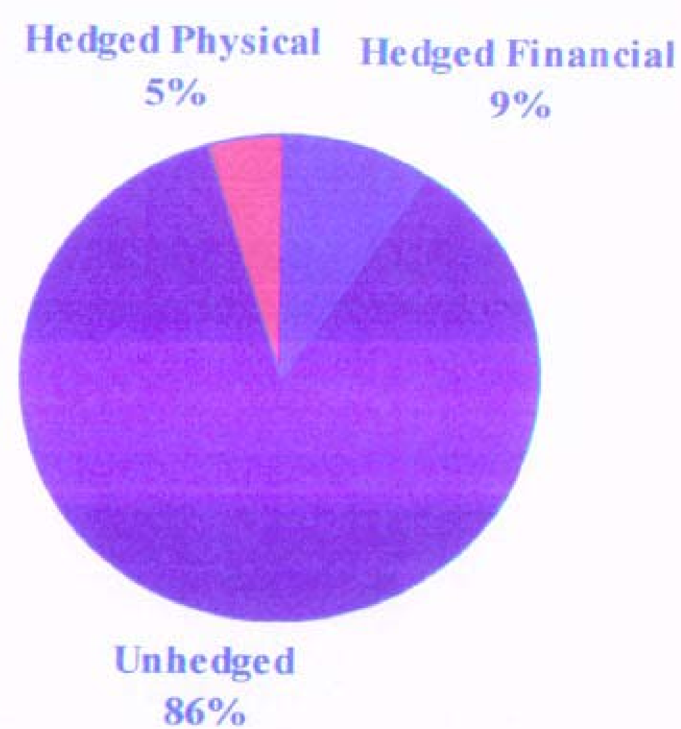


3,000,000MMBTU
@ $4.526/MMBTU

Risk Management Status

2008 Position

12,749,586 MMBTU



1,800,000MMBTU
@ $4.569/MMBTU

Counter Party Credit Risk

July 1, 2002

	Contract $	Market $	Exposure $
Physical Forward:			
BP	16,708,377	17,170,132	461,755
Tenaska	31,000	31,000	0
Duke	3,906,000	4,355,600	449,600
Williams	3,654,000	3,660,000	6,000
E Prime	5,393,000	5,632,900	239,900
Aquila	1,406,000	1,430,800	24,800
Swaps/Futures/Collars:			
Morgan Stanley	25,728,000	30,331,100	4,603,100
NYMEX	(3,093,000)	(2,560,220)	532,780
Western Resources	7,668,220	8,957,580	1,289,360

Counter Party Credit Risk

July 1, 2003

	Contract $	Market $	Exposure $
Physical Forward:			
BP	21,318,500	25,672,150	4,353,650
Tenaska	1,028,500	1,064,450	35,950
OneOk	910,567	9,400,500	29,933
Duke	2,278,500	3,799,950	1,521,450
Swaps/Futures/Collars:			
Morgan Stanley	22,641,000	34,776,363	12,135,363
NYMEX	(3,207,550)	(3,828,500)	(620,950
Western Resources	5,530,000	1,091,000	4,661,000

Counter Party Credit Risk

July 1, 2004

	Contract $	Market $	Exposure $
Physical Forward:			
BP	23,677,120	31,455,690	7,778,570
Tenaska	271,060	280,140	9,080
OneOk	5,407,460	5,449,980	42,520
Salt Plains	81,740	84,060	2,320
Swaps/Futures:			
Morgan Stanley	19,919,250	27,920,000	8,000,750
NYMEX	13,610,750	15,871,960	2,261,210
Western Resources	1,675,000	3,044,700	1,369,700

What Costs are in Rates?

- In Rebuttal Testimony – Before Black Box Settlement
  - Empire Witness Beecher- $18.09/MWh
  - Staff Witness Elliot Run 128 -$17.45/MWh

EMPIRE

SERVICES YOU COUNT ON