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John J. Finnigan, Jr.
Senior Counsel

VIA OVERNIGHT DELIVERY

June 29, 2005

Ms. Elizabeth O'Donnell
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
P.O. Box 615
Frankfort, Kentucky 40602-0615

RECEIVED

JUN 30 2005

PUBLIC SERVICE
COMMISSION

Re: The Application of The Union Light, Heat and Power Company for Approval of
Fixed Bill Program Riders Applicable to Residential Customers.
Case No. 2005-00503

Dear Ms. O'Donnell:

I have enclosed an original and 12 copies of The Union Light, Heat and Power
Company's supplemental filing in the above-referenced case.

Please date stamp and return the two extra copies in the enclosed, self-addressed
envelope.

If you have any questions, please do not hesitate to contact me at (513) 287-3601.

Sincerely,

John J. Finnigan, Jr.
Senior Counsel

JJF/sew

cc: Hon. Elizabeth Blackford (w/encl.)

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED
JUN 30 2005
PUBLIC SERVICE
COMMISSION

In the Matter of:)
)
Application of The Union Light, Heat)
and Power Company for Approval of Fixed) Case No. 2004-00503
Bill Program Riders Applicable to)
Residential Customers.)

THE UNION LIGHT, HEAT AND POWER COMPANY'S
SUPPLEMENTAL FILING IN SUPPORT OF APPLICATION

The Union Light, Heat and Power Company ("ULH&P") hereby files this additional information in support of its application for approval of fixed bill program riders applicable to residential customers.

On May 10, 2005, ULH&P filed a motion to re-open the procedural schedule. ULH&P filed this motion following the Commission's Order denying approval of East Kentucky Power Cooperative's ("East Kentucky") application for approval of a fixed bill program.¹ The Commission's June 3, 2005 Order revised the procedural schedule in this proceeding, allowing ULH&P to file additional information in support of its application by June 30, 2005.²

¹ *In the Matter of the Application of East Kentucky Power Cooperative, Inc., Inter-County Energy Cooperative Corporation, Nolin Rural Electric Cooperative Corporation, and Salt River Electric Cooperative Corporation, for Authority to Implement a Fixed Bill Pilot Program* (hereinafter "*In re East Kentucky Fixed Bill*"), Case No. 2004-00330 (Order) (May 4, 2005).

² *In the Matter of the Application of The Union Light, Heat and Power Company for Approval of Fixed Bill Program Riders Applicable to Residential Customers* (hereinafter "*In re ULH&P Fixed Bill*"), Case No. 2004-00503 (Order) (June 3, 2005).

Consumer Research

The Commission stated that one reason for denying East Kentucky's application for approval of a fixed bill program was that: "[t]he Joint Applicants have not surveyed their customers or performed any quantitative analysis to determine the level of demand or interest their customers have in a fixed bill program."³ ULH&P supported its fixed bill filing with survey information from J. D. Power and Associates showing that 17% of utility customers choose to participate in some type of levelized billing plan. Further, consumer research conducted by ULH&P's affiliate, PSI Energy, Inc. ("PSI") (involving PSI employees who received a fixed bill service)⁴ revealed significant interest in the fixed bill option, and follow-up consumer research showed that participating customers were overwhelmingly satisfied with the fixed bill option.⁵ ULH&P did not, however, conduct its own consumer research prior to filing its application.

Given the Commission's concern regarding East Kentucky's lack of consumer research, ULH&P conducted consumer research into customer preferences for billing options. ULH&P individually interviewed 42 randomly selected customers, including twelve customers currently on a ULH&P budget billing plan. The customers were the responsible person in their household for paying the energy bill, and represented a diverse group of gender, age and income levels.

The customers were informed of the features of each billing option, including the premium involved in the fixed bill. The customers also received billing illustrations based on their own usage. The survey research moderator then asked for customers'

³ *In re East Kentucky Fixed Bill*, Case No. 2004-00330 (Order at p. 6) (May 4, 2005).

⁴ *In re ULH&P Fixed Bill*, Case No. 2004-00503 (Direct Testimony of Todd W. Arnold at p. 8) (December 13, 2004).

⁵ *Id.*

opinions regarding ULH&P's standard bill, annual budget bill, a quarterly budget bill and a fixed bill. Ninety-five percent of the customers expressed the opinion that ULH&P should offer a fixed bill option. The primary reason these customers cited for offering a fixed bill option was that the fixed bill provides an additional bill payment alternative. Additionally, those who preferred a fixed bill option did so because the program involves no periodic true-up. This fixed billing amount feature is not available under ULH&P's annual budget billing plan, or a quarterly budget billing plan. A report on ULH&P's consumer research study is at Attachment A, and ULH&P has also supplied a videotaped overview of the consumer research study.⁶

Customer Impacts

Another reason the Commission cited for rejecting East Kentucky's fixed bill proposal was the potential for adverse financial and rate impacts to customers. The Commission explained that: "the Joint Applicants, as member-owned cooperatives, have no shareholders to absorb the costs or losses that might be incurred as a result of a fixed bill program."⁷ ULH&P's proposal differs from East Kentucky's because ULH&P proposes to account for the fixed bill program below-the-line.⁸

ULH&P is an investor-owned utility; therefore, ULH&P's shareholder can and will absorb any possible losses associated with the fixed bill program. Unlike East Kentucky's fixed bill proposal, ULH&P's proposal complies with the Commission's directive in Administrative Case No. 384 that any fixed bill offering should insulate the

⁶ The videotaped overview is supplied in three different videotape formats: VHS, DVD+R, and DVD-R, at Attachments B, C and D, respectively.

⁷ *In re East Kentucky Fixed Bill*, Case No. 2004-00330 (Order at pp. 6-7) (May 4, 2005).

⁸ *In re ULH&P Fixed Bill*, Case No. 2004-00503 (Application at pp. 5-6) (December 13, 2004).

utility's customers from the costs of the fixed bill service, by requiring either the utility or the fixed bill customers to bear the program costs.⁹ In ULH&P's proposal, there will be no adverse impacts to ULH&P's operations or to the rates charged to customers who do not take the fixed bill service. The only expected consequence from fixed bill is a slight increase in energy usage (not peak demand). This small increase in energy is expected to lower the average rates slightly for all customers as the improvement in load factor is subsidized by fixed bill participants. Additionally, ULH&P's shareholder will fully absorb any variance in revenues caused by fixed bill participants that deviates from what would have been realized under the standard tariff charges.

The final reason the Commission cited for rejecting East Kentucky's fixed bill proposal was a concern that the fixed bill program could increase energy consumption and demand, which could cause even greater capacity shortages than East Kentucky's present capacity shortfall.¹⁰ ULH&P's fixed bill proposal presents different considerations. ULH&P will have excess generating capacity after CG&E transfers the three generating plants, presently scheduled for closing effective August 1, 2005.¹¹ ULH&P expects to have excess capacity during the entire three-year pilot period for the fixed bill program. The nature of this excess is shown in Attachment E, where projected increases in peak impacts are immaterial relative to the possible peak impacts during the

⁹ *In the Matter of an Investigation of Increasing Wholesale Natural Gas Prices and the Impacts of Such Increases on the Retail Customers Served by Kentucky's Jurisdictional Natural Gas Distribution Companies*, Administrative Case No. 384 (Order at p. 7) (July 17, 2001).

¹⁰ *In re East Kentucky Fixed Bill*, Case No. 2004-00330 (Order at pp. 7-8) (May 4, 2005).

¹¹ *See In the Matter of the Application of The Union Light, Heat and Power Company for a Certificate of Public Convenience to Acquire Certain Generation Resources and Related Property; for Approval of Certain Purchase Power Agreements; for Approval of Certain Accounting Treatment; and for Approval of Deviation from Requirements of KRS 278.2207 and 278.2213(6)*, Case No. 2003-00252 (Order) (June 17, 2005). The closing date is contingent on SEC approval for the transfer of the three plants.

summer months, with the fixed bill program. In all cases, weather risk plus fixed bill risk are well within the limits of ULH&P's new capacity.

Further, ULH&P does not believe that the nature or magnitude of the peak impacts attributable to fixed bill are significant. Currently, the only available information on the impacts of a fixed bill program on customer usage is a Gulf Power study. This study concluded that increases in customer usage due to a fixed bill program tend to increase demand during non-system coincident hours and not much during peak operating hours. Gulf Power is a summer peaking electric utility, like ULH&P's electric load. The results of the Gulf Power study should also apply for ULH&P.

ULH&P analyzed the peak hourly demands of several residential customers in Kentucky in the study at Attachment E, and found two important results. First, customer peak demands do not necessarily increase with temperature. The primary source of increased usage for the fixed bill program is believed to be increased customer comfort caused by thermostat adjustments. This implies that the primary source of increased peak impacts for fixed bill should derive from increased temperatures during the summer.

Viewing the individual customer household usage data, however, most customers realize their peak usage at both high and moderate temperatures, and even at relatively low temperatures in some cases. ULH&P recognizes that peak loads are realized at different hours for different customers (diversified), and that this diversity in peak load is reduced in aggregate for the system as temperature increases. However, the attached regression analysis of system peak load as a function of temperature indicates that the increase in peak load above 89 degrees is not significant. Therefore, the incremental impact from customers adjusting their thermostats may serve to increase total usage

somewhat throughout the summer, but is unlikely that much, if any, peak impact would be realized.

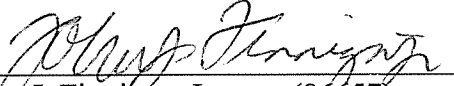
If the Commission approves ULH&P's fixed bill pilot proposal, ULH&P could further study the impact of a fixed bill program on its own customers' usage. The study would occur while ULH&P has excess capacity. This study could provide valuable additional information on whether a fixed bill program tends to increase peak demand for a summer peaking utility. The Commission could use this additional information in deciding whether to re-approve ULH&P's fixed bill offering after the three-year pilot program expires.

Finally, ULH&P notes the Commission's concern in the East Kentucky case that the fixed bill program did not contain proper pricing signals.¹² Under ULH&P's proposal, fixed bill customers will receive a price signal in that ULH&P will re-calculate their fixed bill charge every year, so any increased usage during a prior year will reflect itself in a higher fixed bill charge for the following year. Additionally, customers can be removed from the program for excessive usage. As a result, the fixed bill program should not lead to excessive increases in usage.

Based on the foregoing additional information, ULH&P respectfully requests that the Commission approve its fixed bill proposal.

¹² *In re East Kentucky Fixed Bill*, Case No. 2004-00330 (Order at p. 7) (May 4, 2005).

THE UNION LIGHT, HEAT AND
POWER COMPANY

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CERTIFICATE OF SERVICE

I certify that a copy of the foregoing The Union Light, Heat and Power Company's Supplemental Filing in Support of Application was served on the following parties by ordinary United States mail, postage prepaid, this 29th day of June, 2005.



John J. Finnigan, Jr.

Hon. Elizabeth E. Blackford
Assistant Attorney General
Office of the Attorney General
Public Service Litigation Branch
1024 Capital Center Drive
Frankfort, Kentucky 40601

ULH&P Billing & Payment Options

Customer Survey Report

June 21, 2005

Introduction

Cinergy/ULH&P conducted in-depth customer research regarding preferences and opinions of payment and billing options. Four billing concepts were tested, including the standard tariff bill, an annual budget bill, a quarterly budget bill and a fixed bill. The following written report and results are supplemented by a 20 minute videotape summary overview of the customer feedback for each of the four concepts. All customer interviews were taped, and any (or all) are available for viewing, upon request. The videotaped 20 minute overview is intended to provide a qualitative assessment and flavor for the interviews. The video does not replace the quantitative results. For more accurate projections of customer opinions to the ULH&P population, the quantitative results should be relied upon more so than the qualitative videotape. The 20 minute overview is provided on DVD and requires a DVD player, or a PC with DVD drive and DVD player capabilities.

Methodology

Individual interviews were conducted with 42 ULH&P residential gas customers in Northern Kentucky on June 14 & 15, 2005. Customers were recruited from a randomly sampled list of all ULH&P residential customers, and chose one of two interviewing locations most convenient for them (either Florence in Boone County, or Highland Heights in Campbell County). All research participants were involved in making their energy bill decisions and represented a mix of age, income and gender. Twelve of the 42 participants were currently on a budget billing program. As is common industry practice, all participants were compensated for their participation to mitigate driving costs and customer time and/or inconvenience.

The interview session was designed to fairly and carefully educate customers on four different billing and payment options including two types of budget billing, fixed billing and standard billing. The options were illustrated with the participant's actual usage history or similar. Concept statements were rotated to eliminate position bias. The interview explored each participant's likes and dislikes, personal participation interest, and opinions about whether each option should be offered. In addition, for the fixed bill option, questions about the expected premium were asked. Finally, each of the four concepts was rank-ordered for overall preference.

Key Findings

Concept "S" (Standard Bill)

Likes

- Over half (52%) did not cite any reason for liking the Standard Bill. Among those who did cite a "like", the principal reasons were:
 - Know how much you use (40%)
 - Control / can see savings / pay for what I use (30%)
 - Being low in certain months (i.e. summer, tax season) (25%)

Dislikes

- Half (50%) did not cite any reason for disliking the Standard Bill. Among those who did cite a dislike, the principal reasons were:
 - Fluctuations / hard to budget & plan (24%)
 - High months (especially winter) (21%)

Concept "B" (Annual Budget Bill)

Likes

- The vast majority (86%) cited at least some reason they liked the Annual Budget Bill. Among those who did cite a reason for liking it, the principal reasons were:
 - Fixed / predictable / budget convenience (56%)
 - Notification about change option at 6 months (19%)
 - Pay for actual usage (10%)
 - Avoid extremes (8%)
 - Based on last year's usage (4%)

Dislikes

- Two-thirds (67%) cited at least some reason they did not like the Annual Budget Bill. Among those who did cite a dislike, the principal reasons were:
 - True-up / risk of large true-up / unexpected true-up (54%)
 - True-up at Christmas (19%)
 - Based on prior year / only want to pay for actual usage (15%)

Participation Interest

- Twelve respondents were already on the Annual Budget Bill program. Of the 31 remaining, 43% said they definitely or probably would participate in the Annual Budget Bill program if it were offered to them. Twenty-seven percent said they definitely or probably would not participate.

Whether Cinergy Should Offer

- Nearly everyone (98%) said Cinergy should offer the Annual Budget Bill as an option for customers. The principal reasons were:
 - Helps with budget control / good for fixed incomes (68%)
 - "Choice" is a good thing (22%)

Concept "Q" (Quarterly Budget Bill)

Likes

- The majority (60%) cited at least some reason they liked the Quarterly Budget Bill. Among those who did cite a reason for liking it, the principal reasons were:
 - Fixed for 3 months (31%)
 - Adjusts every 3 months (19%)
 - Some lower cost months (12%)
 - Closer to actual usage (6%)
 - Not a big true-up (6%)
 - Not as much fluctuation (6%)
 - Don't have to call (6%)

Dislikes

- The vast majority (83%) cited at least some reason they did not like the Quarterly Budget Bill. Among those who did cite a dislike, the principal reasons were:
 - Fluctuation / too much fluctuation / not enough constant months (39%)
 - Confusing / hard to track / too many unknowns / don't trust Cinergy enough / don't trust the true-up method (25%)
 - Might over pay in some months / paying more when using less / may cost more / only a few low months / want to pay just for what used (14%)
 - No notification of change (9%)
 - Big change vs. what used to (7%)
 - High in bad months / true-up at bad time (January) (5%)

Participation Interest

- One person was already on the Quarterly Budget Bill program. Of those remaining, 29% said they definitely or probably would participate in the Quarterly Budget Bill program if it were offered to them. Fifty-four percent said they definitely or probably would not participate.

Whether Cinergy Should Offer

- The vast majority (81%) said Cinergy should offer the Quarterly Budget Bill as an option for customers. The principal reasons were:
 - "Choice" is a good thing / it might work for others (59%)
 - Good for fixed incomes / helps with budget control (32%)
 - Lower cost around the holidays (6%)

- Nineteen percent said Cinergy should not offer the Quarterly Budget Bill as an option for customers. Among these, the principal reasons were:
 - No advantage (86%)
 - Too confusing (14%)

Concept "F" (Fixed Bill)

Likes

- The majority (79%) cited at least some reason they liked the Fixed Bill. Among those who did cite a reason for liking it, the principal reasons were:
 - Fixed / predictable / no surprises / budget convenience (77%)
 - Some leeway / warnings if you use more (10%)
 - No true-up (4%)
 - Lower in some months (4%)

Dislikes

- The majority (79%) cited at least some reason they did not like the Fixed Bill. Among those who did cite a dislike, the principal reasons were:
 - Overpaying / may pay too much in some months / no benefit / the utility "wins" (46%)
 - Want a lower bill in low usage months / want to be billed just on what used (27%)
 - Premium payment / don't know the exact premium (11%)
 - Confusing (8%)

Participation Interest

- Thirty-six percent said they definitely or probably would participate in the Fixed Bill program if it were offered to them. Forty percent said they definitely or probably would not participate.

Whether Cinergy Should Offer

- The vast majority (95%) said Cinergy should offer the Fixed Bill as an option for customers. Among these, the principal reasons were:
 - Fixed / predictable / no surprises / budget convenience (54%)
 - "Choice" is a good thing (31%)
 - Good for limited incomes (13%)
- Two respondents (5%) said Cinergy should not offer the Fixed Bill as an option for customers. Among these, the principal reasons were;
 - Enough options already (50%)
 - The utility is taking advantage of customers (50%)

Premium

- A majority (79%) said it is appropriate for the utility to charge a premium for the Fixed Bill. Among these, the vast majority (80%) said that a premium of up to 5% is appropriate and a substantial portion (37%) said that a premium up to 10% is appropriate.

Billing Option Rankings

- When given an opportunity to rank the four billing options according to overall preference, the Annual Budget Bill was ranked highest. The Standard Bill was second highest and the Quarterly Budget Bill and Fixed Bill options were virtually tied for the third ranking.

Other Payment Options or Features

- When asked what other payment options or billing features they'd like to see Cinergy offer, the majority (74%) could not think of any. The 12 who did have suggestions offered a wide variety:
 - Make the bill easier to read
 - Change the true-up month to not be at year-end
 - Add graphs for usage
 - Pay bill once per quarter
 - Offer more than one payment option
 - Skip a month and spread the payment over the remaining months
 - Credit for energy efficiency
 - Option to change the plan at any time during the year
 - Ability to pick your own true-up month
 - Automatic bill pay direct from Cinergy
 - More options for hardship cases (especially in winter)
 - Power sharing to control usage

Conclusions

1. Fixed bill represents a viable choice with unique advantages for a portion of ULH&P's residential customers. It is the only option that offers the benefit of predictable monthly payments without the true-up charge that many dislike.
2. ULH&P customers think that it is appropriate to charge a premium for the Fixed Bill. A premium in the range of 5-10% is considered fair and appropriate.
3. Even customers who do not prefer the Fixed Bill recognize its unique benefits and think it should be offered to others.

Data Tables

N=42 unless otherwise noted.

	S	B	Q	F
How likely would you be to participate?				
Definitely would—5	na	4 ¹	5 ²	4
Probably would—4	na	9	7	11
May or may not—3	na	9	7	10
Probably would not—2	na	3	8	5
Definitely would not—1	na	5	14	12
Average		3.13	2.53	2.76
Should it be offered to customers as an option?				
Yes	na	41	34	40
No	na	0	7	2
Neutral	na	1	1	0
Appropriate to charge a premium?				
Yes	na	na	na	33
No	na	na	na	8
Don't know	na	na	na	1
How much of a premium is appropriate?				
40% max.	na	na	na	1
15% max.	na	na	na	2
10% max.	na	na	na	8
7% max.	na	na	na	1
5% max.	na	na	na	12
3% max.	na	na	na	2
2% max.	na	na	na	3
1% max.	na	na	na	1
None	na	na	na	8
Don't know	na	na	na	1
\$10 / mo.	na	na	na	1
\$3-5 / mo.	na	na	na	1
\$4 / mo.	na	na	na	1
Rank each of the following options.				
Most preferred—1	12	14	6	10
Second most preferred—2	8	13	13	8
Third most preferred—3	12	9	13	8
Least preferred—4	10	6	10	16
Average	2.48	2.17	2.64	2.71

1 Note that 12 are already on annual budget billing 2 Note that 1 is already on quarterly budget billing na=not asked

ULH&P Billing and Payment Options - One on One Discussion Guide

Introduction

- A. Moderator introduction
- B. Disclosures (Mikes, mirrors, tapes, etc.)
- C. Respondent introduction
 - Name / Area of residence
 - Type of residence (i.e. condo, house, etc.)
 - Major uses of electricity in the home
- D. Purpose of discussion: to discuss four concepts for different billing options that Cinergy either provides, or is considering. Explain each of the billing option with examples using the home's usage history in an effort to make the examples as realistic as possible. After each concept, ask a few questions regarding likes and dislikes.
- E. Guidelines:
 - Speak clearly, no right or wrong answers, etc.

Concepts

A. Read Concept S: Standard Bill

Remind them this the standard bill they currently receive, except for those who are on Budget Billing

B. Read Concept F: Fixed Bill

1. What do you like about Fixed Bill?

2. What do you dislike about Fixed Bill?

3. How likely would you be to participate in the Fixed Bill option? On a scale of 1 to 5, with 5 being definitely would participate and 1 being definitely would not participate.
 - 5 - Definitely would participate.*
 - 4 - Probably would participate*
 - 3 - May or may not participate*
 - 2 - Probably would not participate*
 - 1 - Definitely would not participate*

4. Do you think Fixed Bill should be offered as a choice for customers?

Yes _____ No _____

Why or why not?

5. In order to have the certainty of equal payments each month with no true-up. A premium is charged to help manage the risk to the utility of the Fixed Bill program.

Do you think it is appropriate to charge this premium?

Yes _____ No _____

If yes,

How much of a premium should be charged?

C. Read Concept B: Annual Budget Bill

1. What do you like about Annual Budget Billing?

2. What do you dislike about Annual Budget Billing?

3. How likely would you be to participate in the Annual Budget Billing option?
On a scale of 1 to 5, with 5 being definitely would participate and 1 being definitely would not participate.

5 - Definitely would participate

4 - Probably would participate

3 - May or may not participate

2 - Probably would not participate

1 - Definitely would not participate

4. Do you think Annual Budget Billing should be offered as a choice for customers?

Yes _____ No _____

Why or why not?

D. Read Concept Q: Quarterly Budget Bill

1. What do you like about Quarterly Budget Billing?
2. What do you dislike about Quarterly Budget Billing?
3. How likely would you be to participate in the Quarterly Budget Billing option?
On a scale of 1 to 5, with 5 being definitely would participate and 1 being definitely would not participate.

5 - Definitely would participate
4 - Probably would participate
3 - May or may not participate
2 - Probably would not participate
1 - Definitely would not participate

4. Do you think Quarterly Budget Billing should be offered as a choice for customers?

Yes _____ No _____

Why or why not?

Ranking the options

- A. Lay out the four concepts in front of respondent. Have them put in the order they rank the concepts. Have them read off the order.

1. Please rank each of the following billing options.

1 = Most Preferred 2 = Second Most Preferred 3 = Third Most Preferred 4 = Least Preferred.

S. Standard Bill _____
B. Budget Bill (annual) _____
Q. Budget Bill (quarterly) _____
F. Fixed Bill _____

2. Other than the features and options presented to you, what payment options or features would you like to see Cinergy offer?

Concept S: A Standard Bill

Your monthly bill is calculated using the current month's kWh (kilowatt hours) for electric and CCF (cubic feet) for gas, where the existing rates and tariffs are applied. This is a standard bill, and is the type of bill that you would receive normally.

Below is an example of what your monthly energy costs would look like for your house, for both a mild, (low usage) year and a more extreme, (high usage) weather year.

Standard Bill	Electric Min	Electric Max	Gas Min	Gas Max	Total Min	Total Max
January	\$48	\$74	\$122	\$297	\$170	\$371
February	\$62	\$82	\$90	\$218	\$153	\$300
March	\$54	\$69	\$54	\$155	\$108	\$224
April	\$48	\$67	\$39	\$110	\$87	\$177
May	\$58	\$80	\$35	\$50	\$92	\$130
June	\$65	\$93	\$25	\$34	\$90	\$128
July	\$80	\$111	\$29	\$41	\$109	\$152
August	\$68	\$102	\$28	\$38	\$96	\$140
September	\$67	\$93	\$26	\$37	\$92	\$131
October	\$46	\$66	\$36	\$121	\$82	\$186
November	\$72	\$87	\$49	\$142	\$121	\$229
December	\$57	\$77	\$99	\$237	\$156	\$314

Account # 70400624

Concept B: An Annual Budget Bill

The Annual Budget Bill takes the previous 12-months of usage and applies today's rates and tariffs to them. From this, a bill is calculated for the coming year, as if you had used the same amount of energy and gas as last year.

This total annual bill amount is then divided by 11 and called your Budget Bill. This is the amount you would be expected to pay each month. In addition, you would be expected to make up the difference in the 12th month, called the true-up month, between what you had actually used during the year versus what was projected.

The Annual Budget Bill amount is recalculated in month 6. If it was plus or minus 30% of the originally projected monthly bill, then you would be notified with a message on your bill. If you wished to change your monthly budget bill to the new amount, it would be your responsibility to call ULH&P to have it changed.

If the weather was mild, your 12-month true-up charge would be a credit. However, if the weather was extreme, you would be required to pay the difference between your budget bill amount and your actual usage amount.

Budget Bill Annual

	<u>Electric</u>	<u>Gas</u>	<u>Total</u>
January	\$79	\$87	\$166
February	\$79	\$87	\$166
March	\$79	\$87	\$166
April	\$79	\$87	\$166
May	\$79	\$87	\$166
June	\$79	\$87	\$166
July	\$79	\$87	\$166
August	\$79	\$87	\$166
September	\$79	\$87	\$166
October	\$79	\$87	\$166
November	\$79	\$87	\$166
True-up Month			
Max.	\$63	\$189	\$253
True-up Month			
Min.	-\$54	-\$211	-\$264

Account # 70400624

Concept Q: Quarterly Budget Bill

The Quarterly Budget Bill would take your previous 12-months of usage and apply today's rates and tariffs. From this, a bill would be calculated for the coming year, as if you had used the same amount of energy as last year. This total annual bill amount would then be divided by 12. This is the amount you would be expected to pay for the next 3 months.

In the 4th month, the amount would change to a new amount to reflect a quarterly adjustment. Each quarter, or every 3 months, your bill amount would change to a new amount depending on the weather and your actual usage for the previous 3 months. Your bill would be the same amount for 3 months in a row, then change.

Sometimes the new bill would be higher, and sometimes it would be lower. If your usage is more or less than 10% of what was expected during any quarter, then you would be expected to pay an additional or lesser amount that would reflect the difference in one of the following 4 true-up months - April, July, October or January.

You would not be required to call ULH&P to be made aware of the amount of this increased payment requirement, but you can. The amount would be applied to your bill in each of the true-up months, with or without your being made aware of the change.

Depending on the weather conditions over the previous 3 months, your quarterly rate on the 4th, 8th, and 12th months would increase or decrease depending on your actual usage over the previous 12 months. For the example below, the maximum true-up amount would be spread over the months of April, May and June, and the minimum true-up amount would be spread over the months of October, November and December. This provides an example of how the quarterly budget bill process works.

**Budget Bill
Quarterly**

	<u>Electric</u>	<u>Gas</u>	<u>Total</u>
January	\$72	\$80	\$152
February	\$72	\$80	\$152
March	\$72	\$80	\$152
April	\$93	\$143	\$236
May	\$93	\$143	\$236
June	\$93	\$143	\$236
July	\$72	\$80	\$152
August	\$72	\$80	\$152
September	\$72	\$80	\$152
October	\$54	\$10	\$64
November	\$54	\$10	\$64
December	\$54	\$10	\$64

Account # 70400624

Concept F: Fixed Bill

The Fixed Bill is the same monthly payment each month. It would not depend on usage, weather, or changing gas and electric prices. It would be the same amount each month and would not require you to pay a true-up in the 12th month or after 3 months. However, to help manage the utility's risk, a premium would be applied to capture the usage differences due to mild versus extreme weather.

The only reason your bill would change is if actual usage would be greater than 20% of expected usage. Expected usage is the usage amount predicted based on weather. (i.e. We would expect higher usage during a hot summer month.)

ULH&P would monitor expected usage each month and send warning letters to customers who log greater than 20% of the expected usage. We would also re-price customers who continue to log more than 20% of their expected usage.

In addition, in anticipation of some customers adjusting heating or cooling usage for increased comfort levels, the first year of participation would assume a 5% usage increase. If the customer uses less than the increased amount, subsequent Fixed Bills would decrease.

If weather was mild or extreme, it would not matter. There is no true-up. The customer's bill would remain the same.

Fixed Bill	<u>Electric</u>	<u>Gas</u>	<u>Total</u>
January	\$85	\$93	\$178
February	\$85	\$93	\$178
March	\$85	\$93	\$178
April	\$85	\$93	\$178
May	\$85	\$93	\$178
June	\$85	\$93	\$178
July	\$85	\$93	\$178
August	\$85	\$93	\$178
September	\$85	\$93	\$178
October	\$85	\$93	\$178
November	\$85	\$93	\$178
December	\$85	\$93	\$178

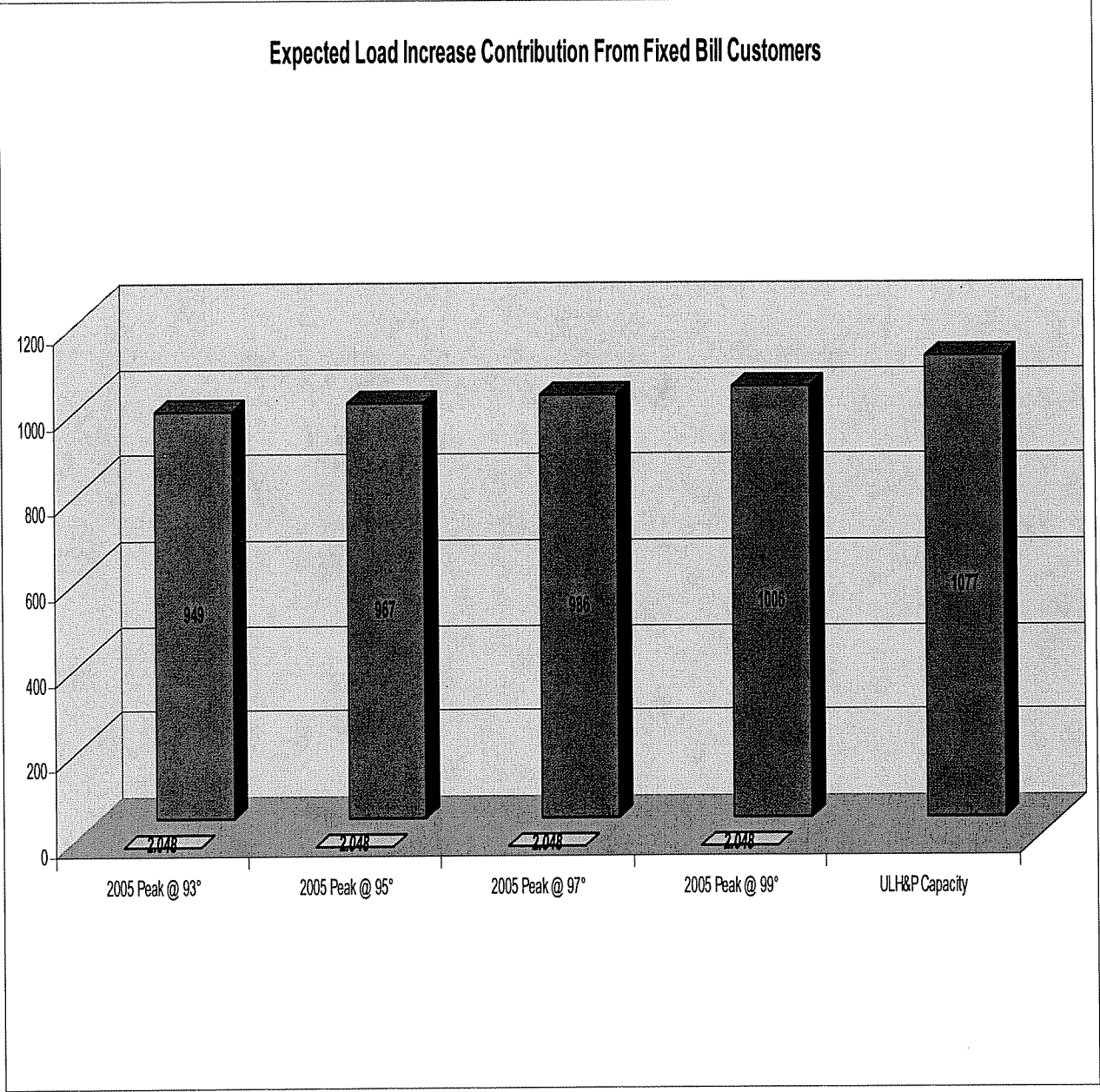
Account # 70400624

There are three primary reasons ULH&P does not expect increases in peak loads, because of the increased usage by Fixed Bill participants.

ULH&P has analyzed the relationship between customer hourly loads and temperatures using data over the past five years from the ULH&P residential customer load research sample group. During this time period, many high temperature conditions have been observed that create system peak conditions. However, during these peak times, the observed load for an individual residential customer does not continue to increase with increasing temperatures. Rather, when viewing each of the individual customer load graphs (see attached file, "Individual_Customer_Peak_Graphs.pdf"), it is clear that the customer's peak load occurs at temperature conditions below those considered extreme. The "+"s in the graph show the 15-minute kW amount (y-axis) for different temperatures (x-axis) during the summer months. In fact, some customers' peak loads decrease with increasing temperature, suggesting that they are on vacation during these times, or leave the home for the pool, or otherwise cause load reductions at these hours. In some cases, the customer load response graphs also depict a band of usage which presumably is the maximum air conditioner load. In these cases, the air conditioner appears to be running full-load and cannot increase peak load demand as the temperature increases. By taking customer load observations individually, it is clear that peak loads do not increase as temperature increases, even though overall monthly energy usage may rise.

Secondly, ULH&P was concerned that system peak load in the aggregate might rise as temperature rises, even though individual customers' load responses do not. The logic here is that as temperatures increase, more and more customers turn on their air conditioners, or fans, or other cooling appliances. This behavior is expected to limit, or remove, the diversity of individual peak loads such that all customer's loads are running coincident with each other, exacerbating the system peak load that is observed during extreme conditions. So, ULH&P aggregated all hourly load research customers to observe how the aggregate, temperature coincident, loads behaved. ULH&P applied a spline regression technique to the mean kW of the ULH&P load research sample. The graph (see attached file entitled "Peak_Spline_Fit.pdf") shows the results from a spline regression that is a way to determine if there are different effects of temperature on kW. The graph shows how residential customer loads do in fact increase with increasing temperature, up to a point, but then flatten out and do not respond further as temperatures rise to the mid-90°s. All air conditioners, presumably, are already running and the peak load contribution from this group on the overall system is not significant. Increases in the system peak load, as temperatures continue to climb, must be driven by increases in non-residential loads.

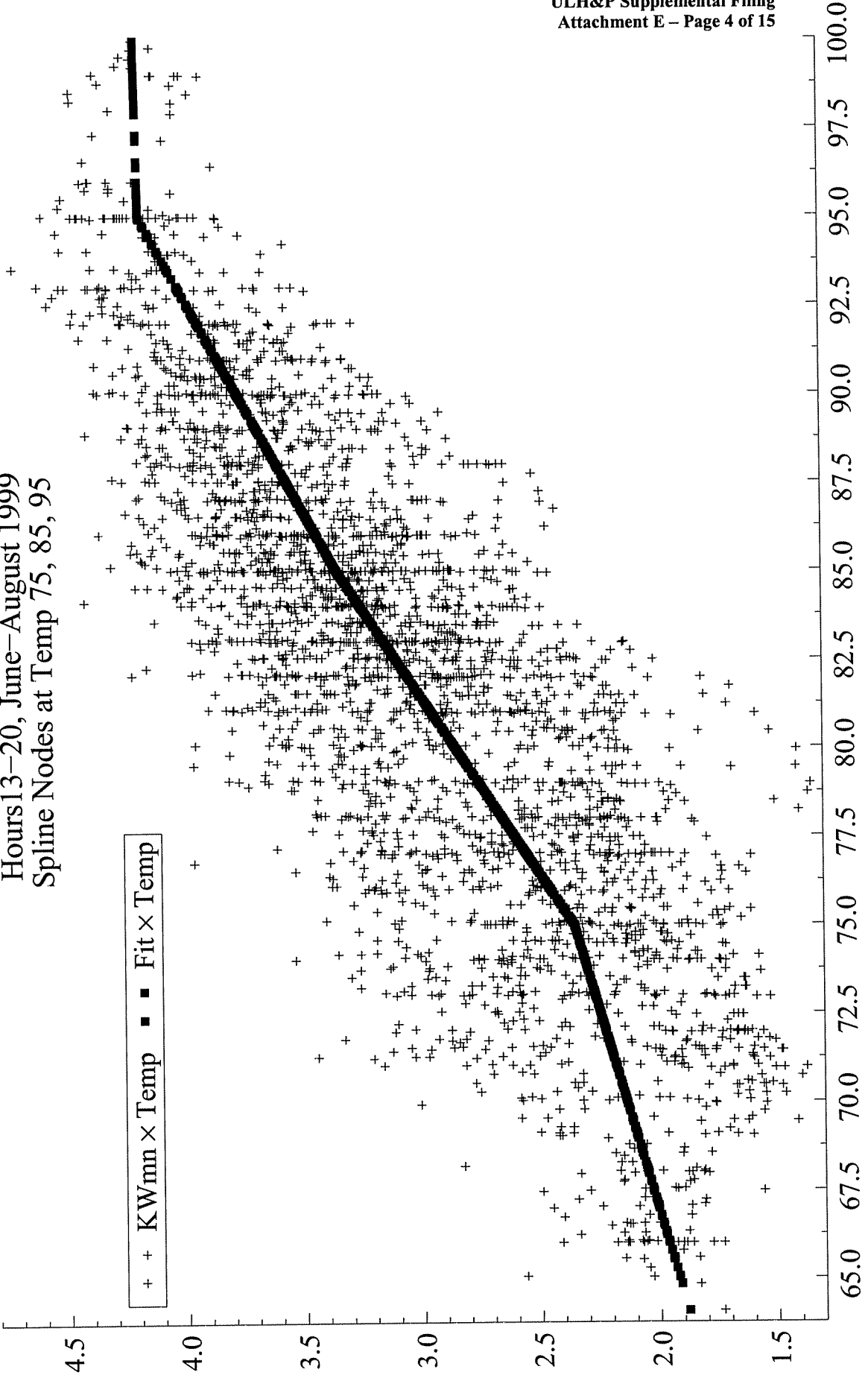
Finally, ULH&P does expect a slight increase in energy usage (not peak load) to occur due to the program. This amount is projected to be 5%. Even if ULH&P incorrectly assumed that peak load should increase at the same proportional rate as energy, or 5%, the graph below "Expected Load Increase Contribution From Fixed Bill Customers" shows that the overall expected increase for the program is not significant. In fact, a change in temperature of one degree causes more of a system load peak impact change than would occur if the peak loads of 10,000 Fixed Bill customers were to increase 5%. In addition, this analysis on increases in peak load assumes (incorrectly) that peak load increases proportionately with energy for these customers, which our above analysis suggests it does not.



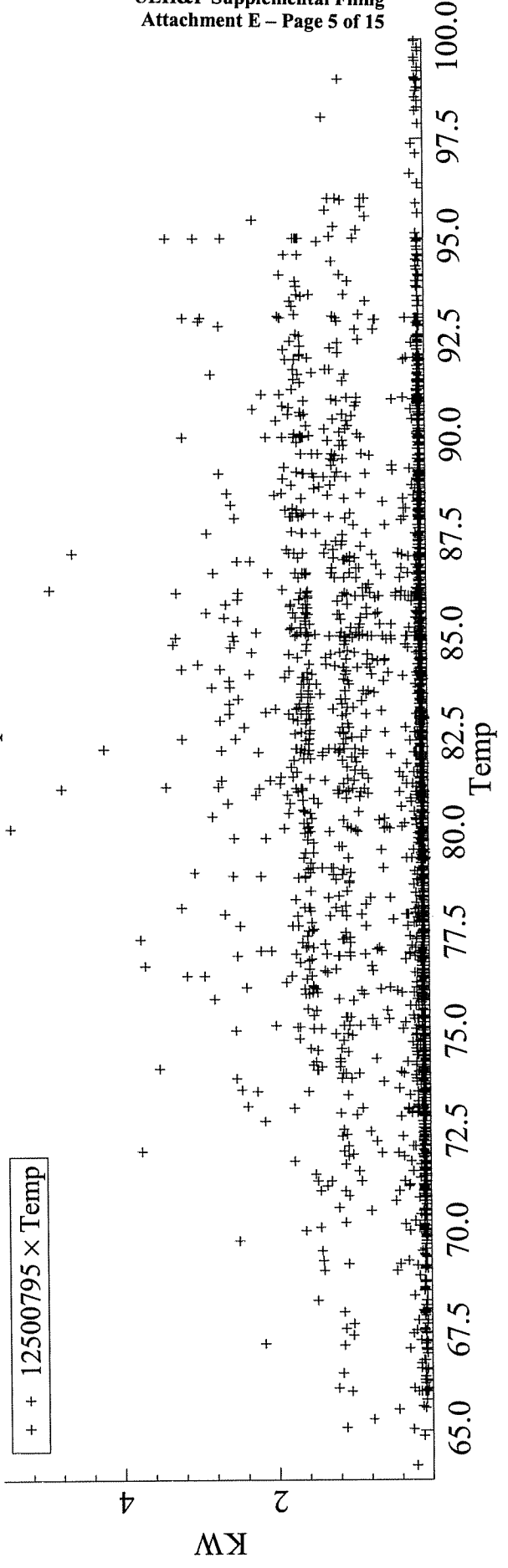
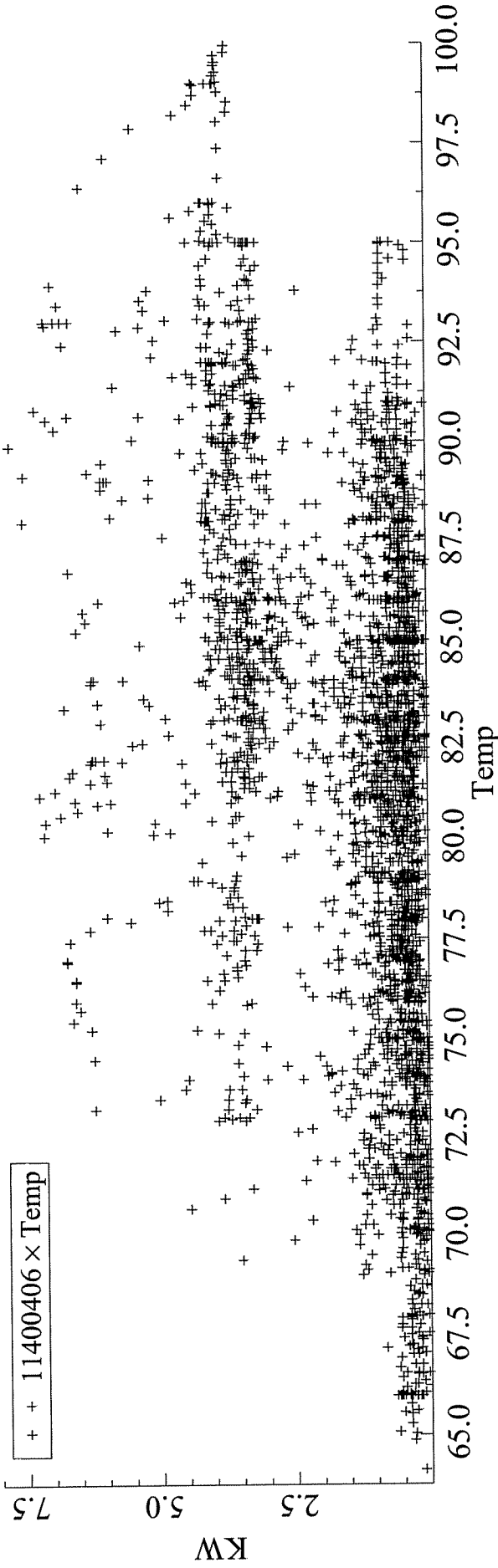
The purple bars= system peak(MW) forecasts for ULH&P.
The yellow bars = increase in peak load for FB customers.
Assumptions:
11,700 ULH&P electric participants on Fixed Bill.
Average Residential Customer Peak = 3.5 kW peak.
Increase in System Peak = 5%/cust.

Notwithstanding the above expectations, ULH&P has committed to conduct load research among Fixed Bill participants, using hourly load research meters, to monitor changes in customer behaviors that may impact peak loads. Further, ULH&P will monitor participants each month to mitigate the risk of participants using more energy than is allowed by the program's terms and conditions. ULH&P will adjust, upward or downward, the customer's Fixed Bill price consistent with the observed level of usage increase or decrease, thereby providing a direct financial disincentive for energy increasing behaviors (and an incentive for energy conserving behaviors).

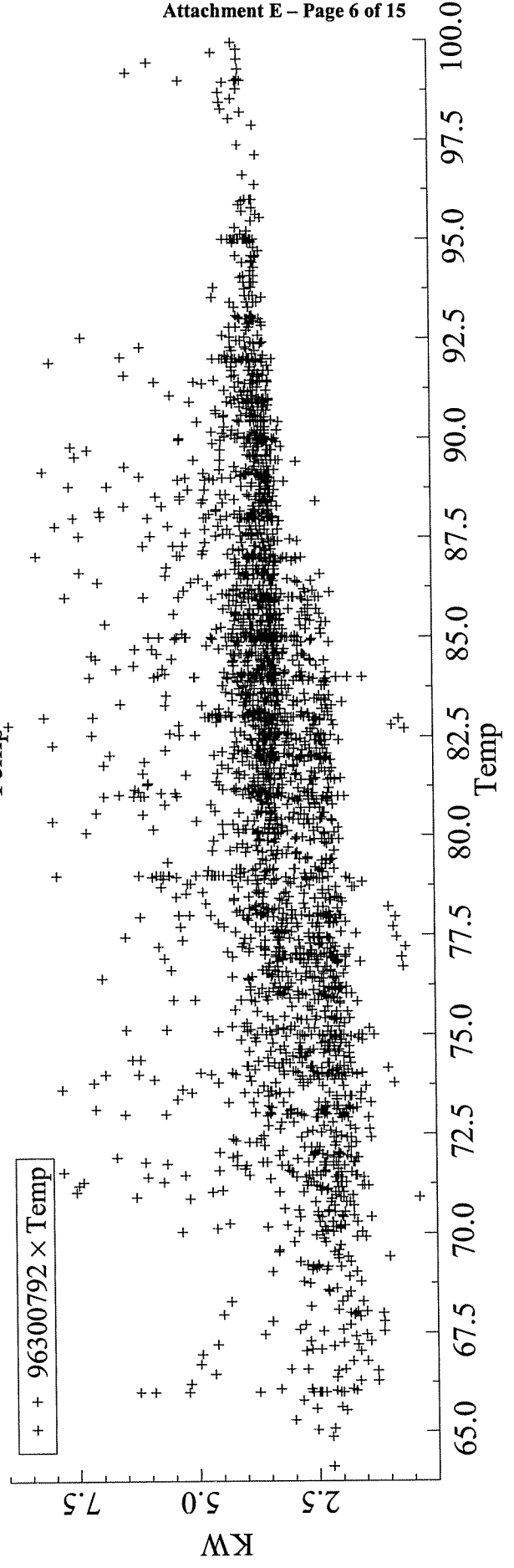
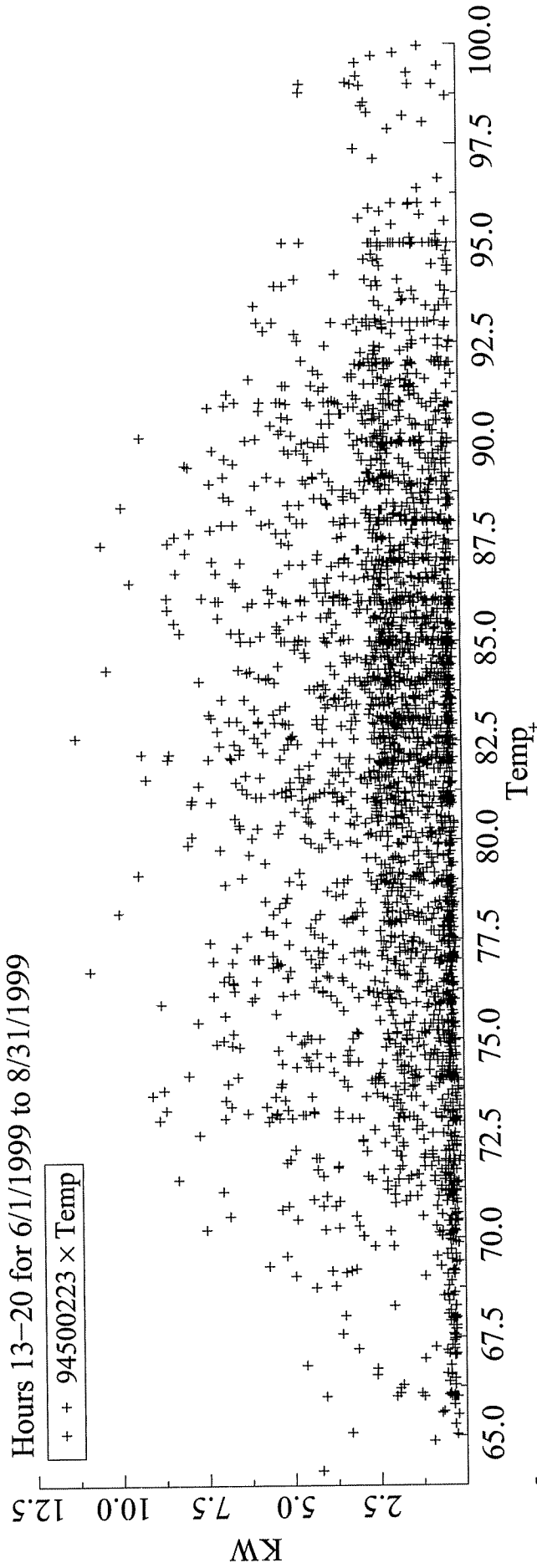
Linear Spline Fit to Mean KW of KY Load Research Sample
Hours 13–20, June–August 1999
Spline Nodes at Temp 75, 85, 95



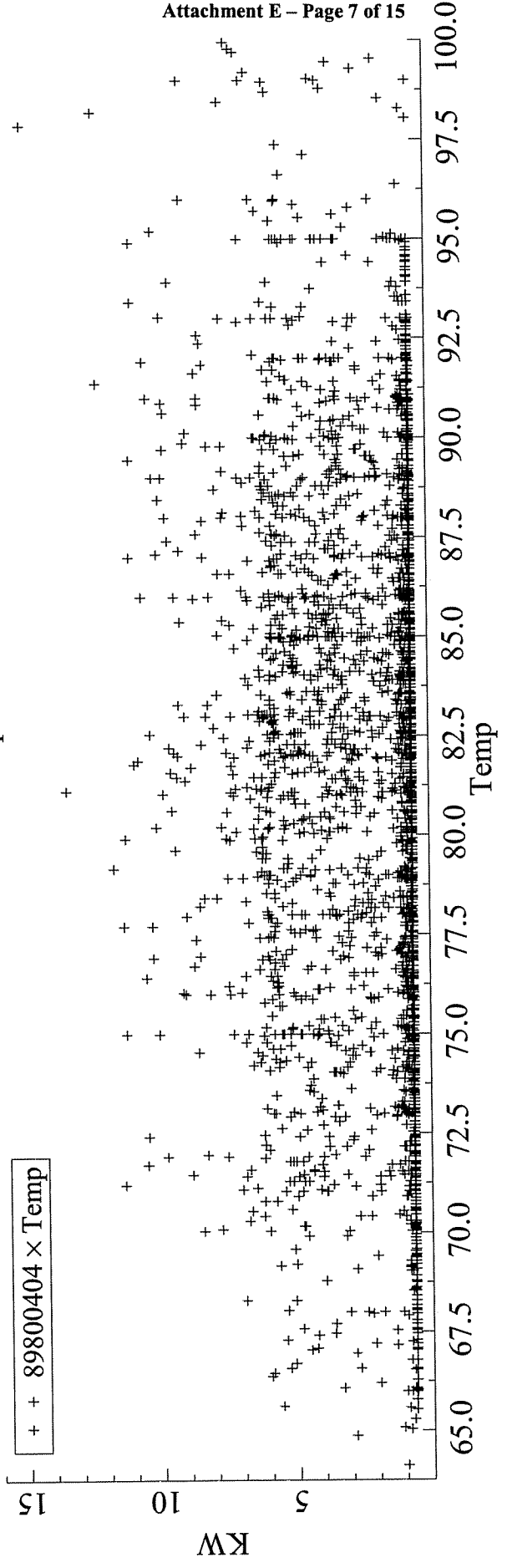
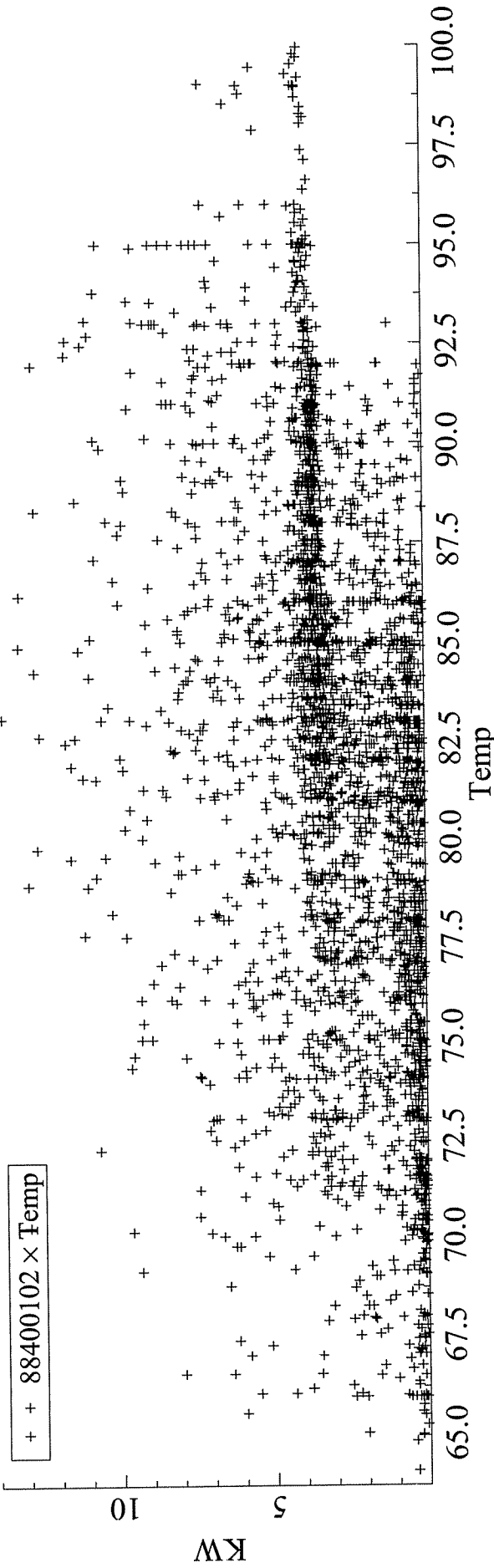
Hours 13–20 for 6/1/1999 to 8/31/1999



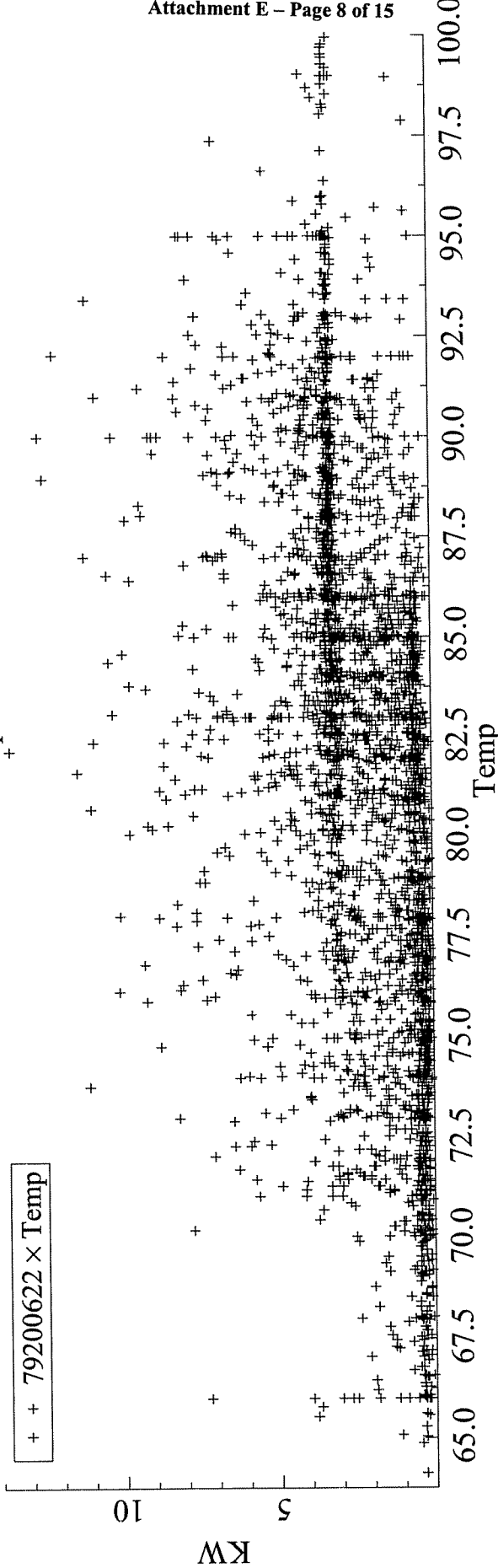
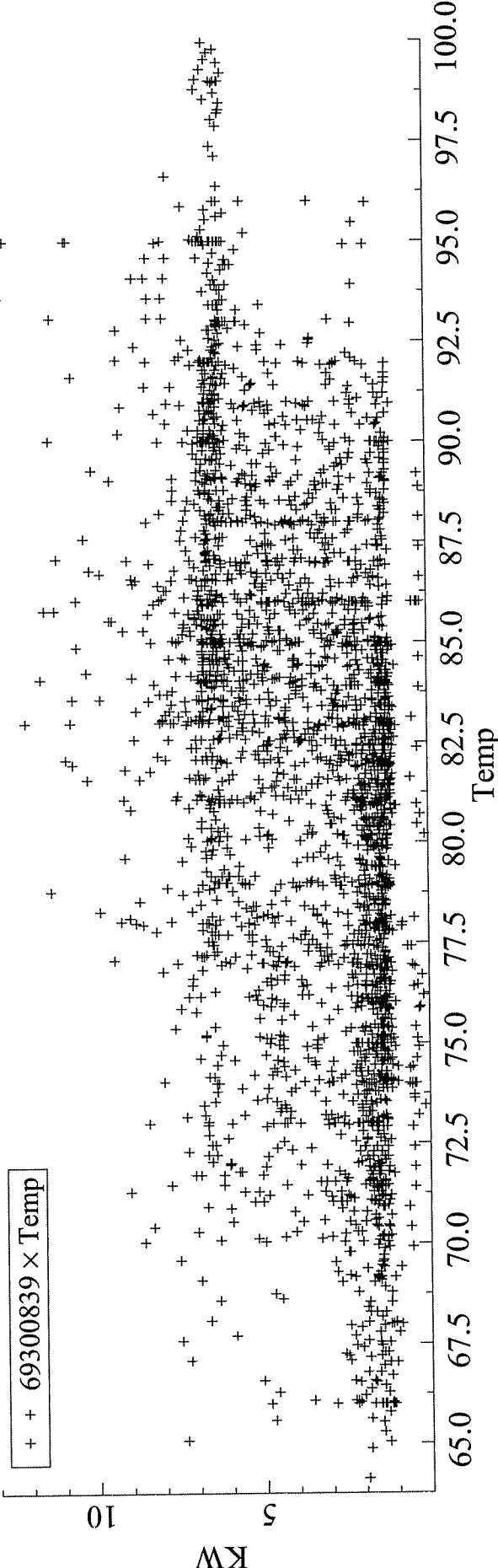
Hours 13-20 for 6/1/1999 to 8/31/1999



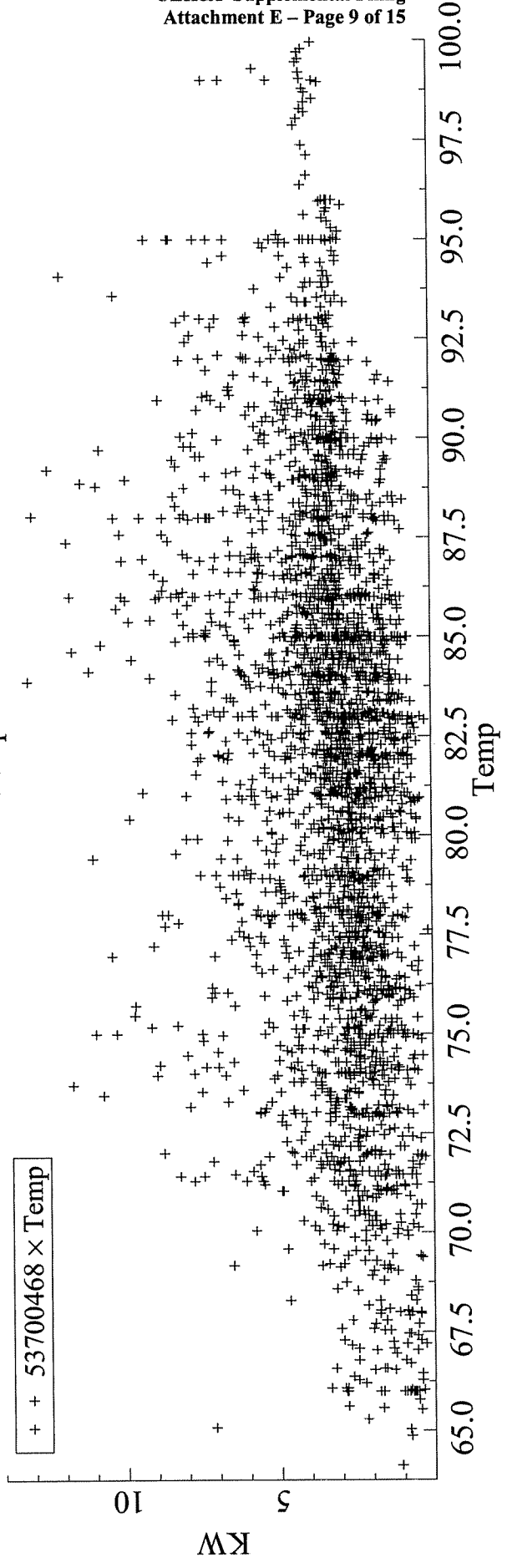
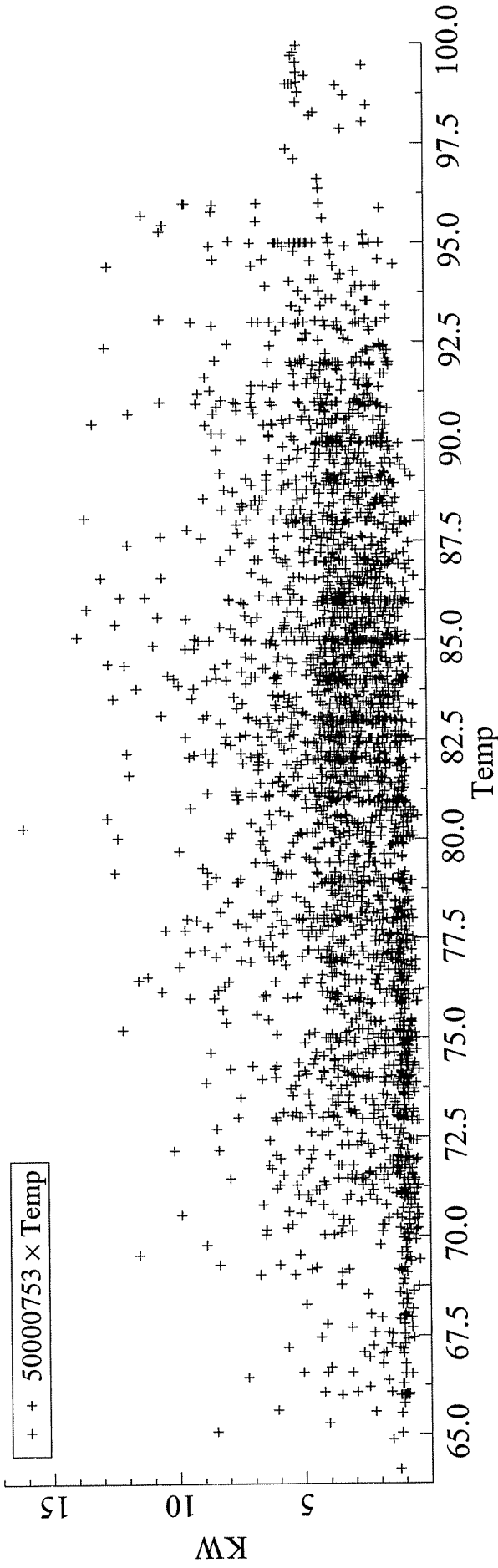
Hours 13-20 for 6/1/1999 to 8/31/1999



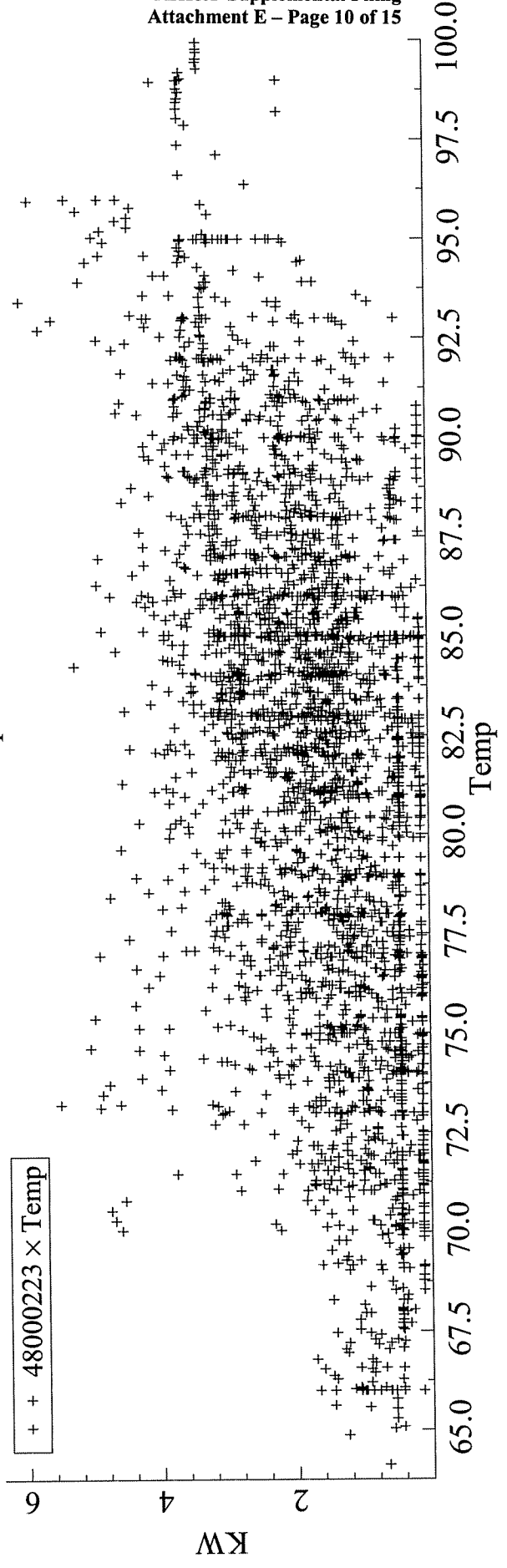
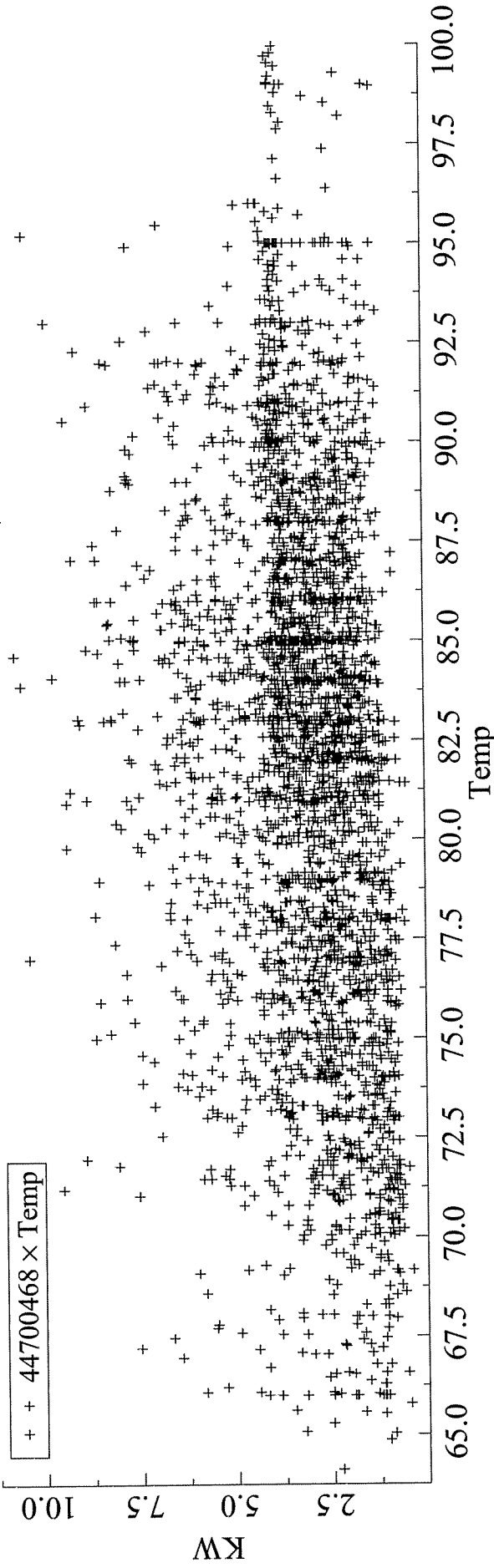
Hours 13–20 for 6/1/1999 to 8/31/1999



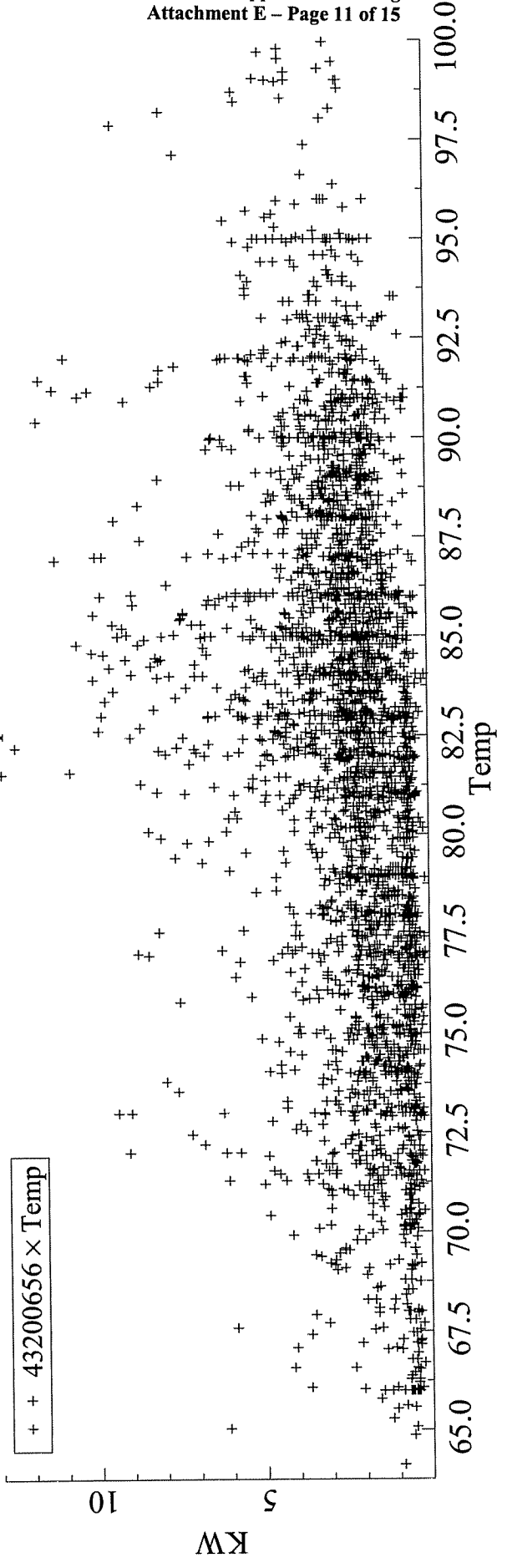
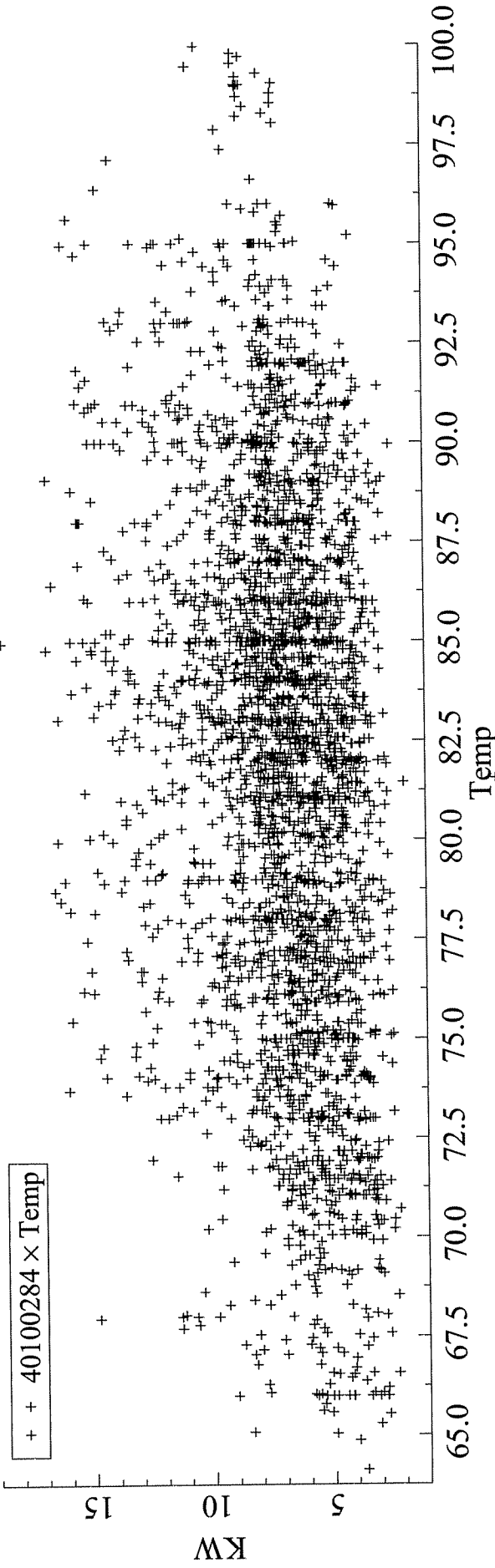
Hours 13-20 for 6/1/1999 to 8/31/1999



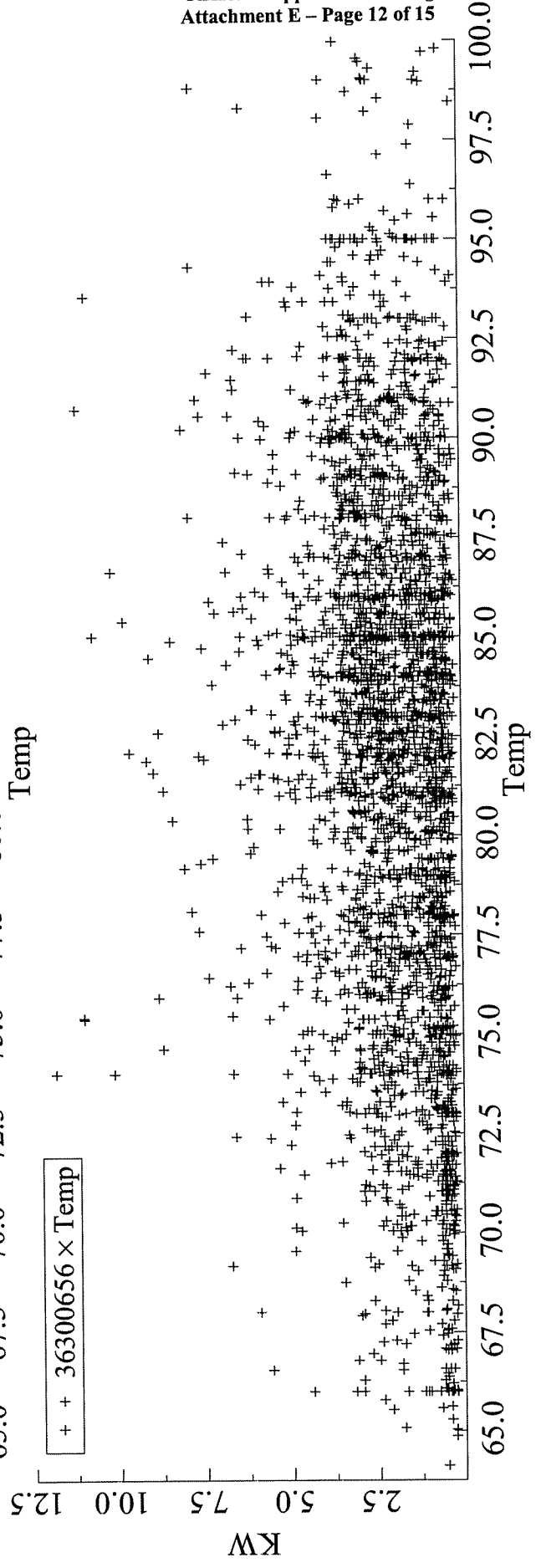
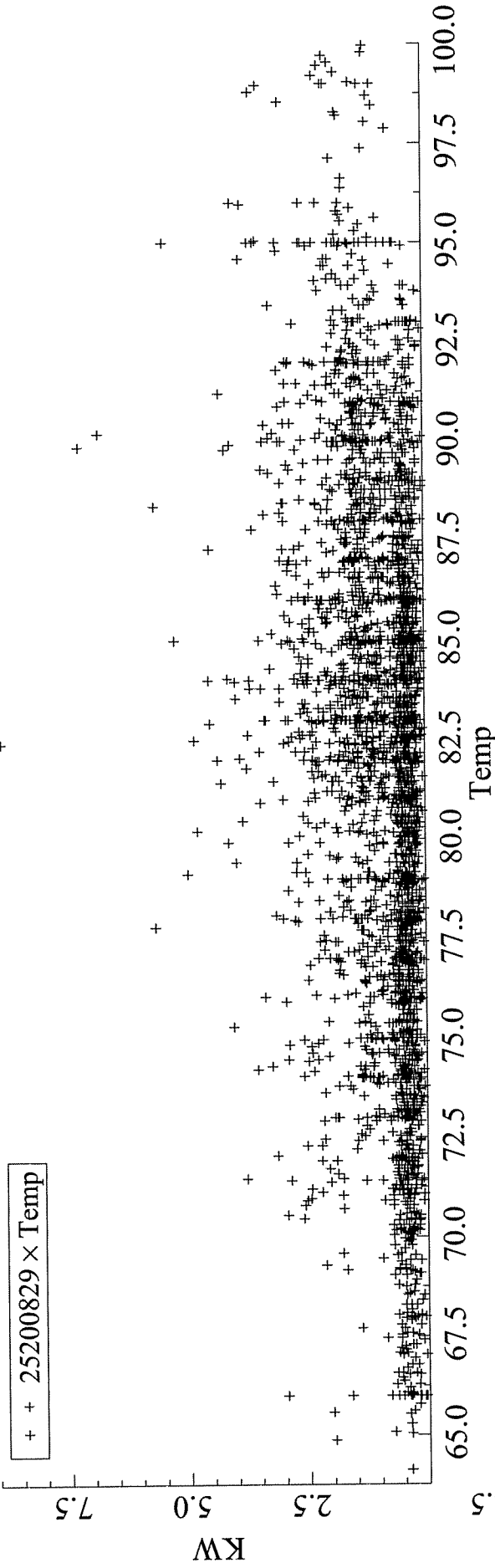
Hours 13-20 for 6/1/1999 to 8/31/1999



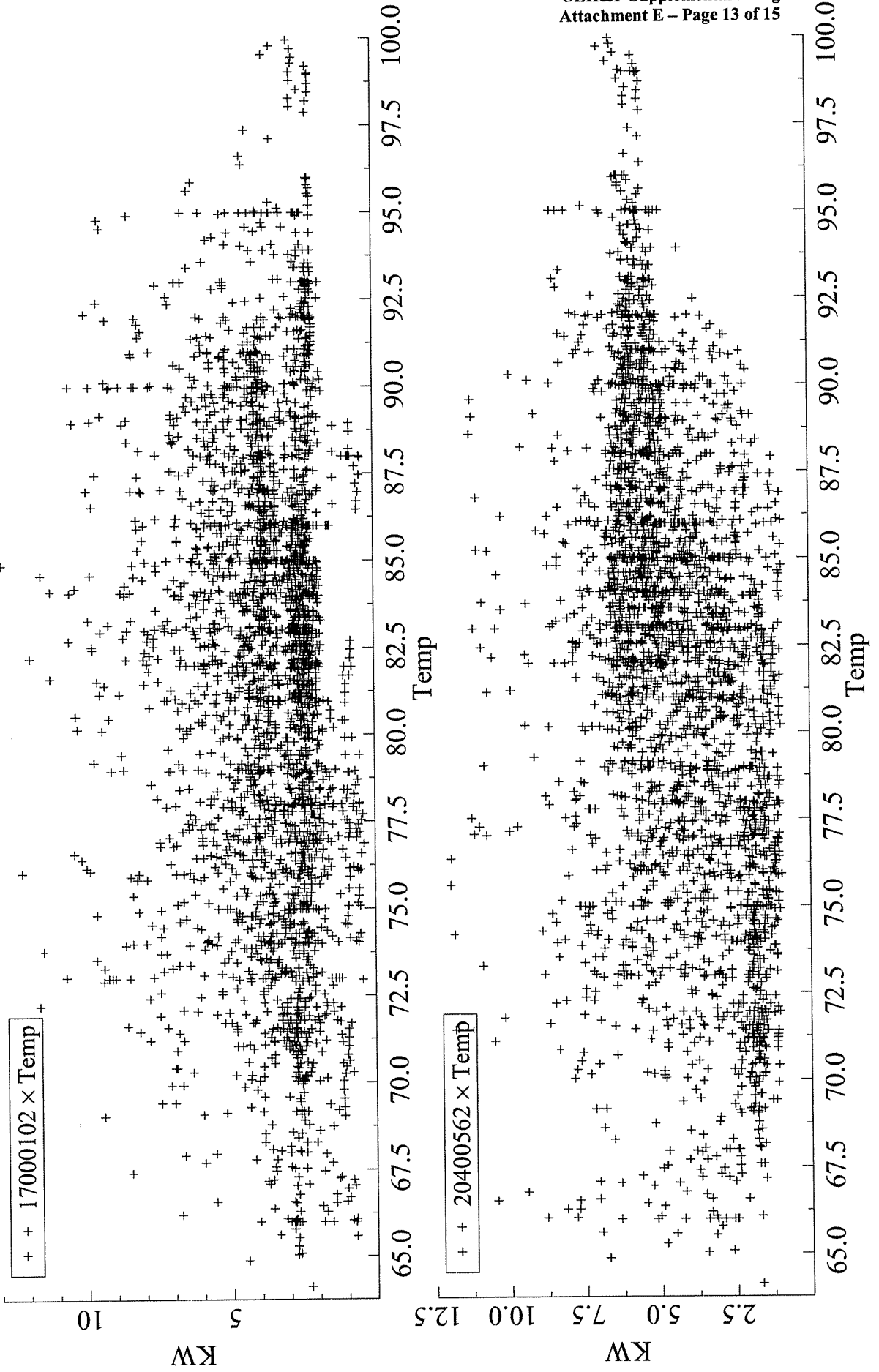
Hours 13-20 for 6/1/1999 to 8/31/1999



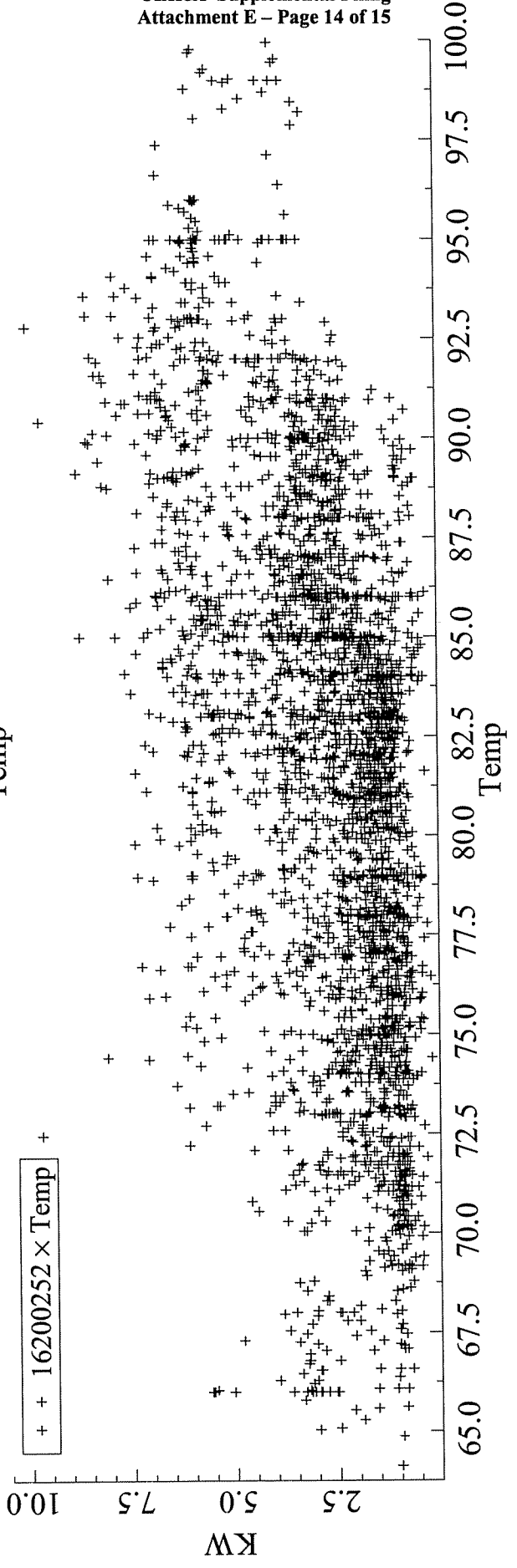
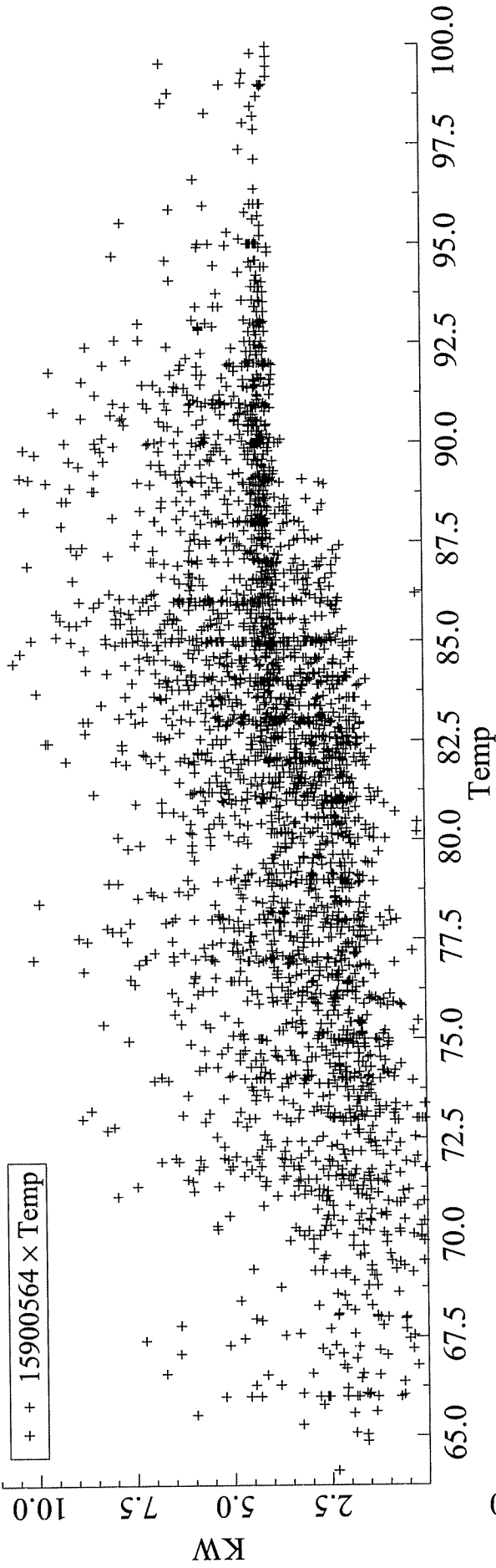
Hours 13-20 for 6/1/1999 to 8/31/1999



Hours 13-20 for 6/1/1999 to 8/31/1999



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