



**Northeast
Utilities System**

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July 21, 2005

Mr. S. Derek Phelps
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Docket No. F-05 - Connecticut Siting Council Review of 2005 Forecasts of Electric Loads and Resources

Dear Mr. Phelps:

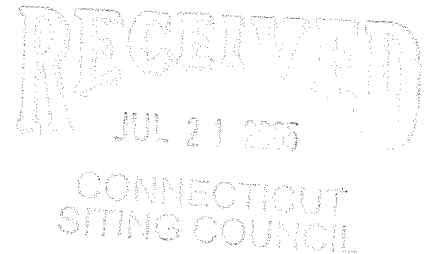
This letter provides the response to requests for the information listed below.

Response to HD-01 Interrogatories dated 07/14/2005
LF - 001 , 002

Very truly yours,

Janet R. Palmer
Manager
Regulatory Policy - CT
NUSCO
As Agent for CL&P

JRP/tms
cc: Service List



SERVICE LIST

Docket: F-05

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The Connecticut Light and Power Company
Docket No. F-05

Late Filed Exhibit HD-01
Dated: 07/14/2005
Q- LF-001
Page 1 of 3

Witness: Charles R. Goodwin
Request from: Connecticut Siting Council

Question:

(Requested by P. Katz and P. Ashton) Please provide a summary table of CL&P's 2005 Long-Run Forecast of Energy Output Requirements and Peak Loads.

Response:

The attachment contains revised Tables II-1 and II-2 which are based on the Company's 2005 load forecast and weather normalized output and summer peak history.

TABLE II-1 (Revised)
NORTHEAST UTILITIES SYSTEM
2005 LONG-RUN FORECAST
CONNECTICUT LIGHT AND POWER COMPANY
**TOTAL FRANCHISE NET ELECTRICAL ENERGY
OUTPUT REQUIREMENTS AND PEAK LOADS
REFERENCE PLAN**
WEATHER NORMALIZED HISTORY 2000 - 2004
FORECAST 2005 - 2014

| NET ELECTRICAL ENERGY OUTPUT REQUIREMENTS (1) | | | SUMMER PEAK | | |
|---|--------|------------------|-------------|------------------|----------------|
| YEAR | OUTPUT | ANNUAL CHANGE | PEAK | ANNUAL CHANGE | LOAD FACTOR |
| | GWH | (%) | MW | (%) | (2) |
| HISTORY - WEATHER NORMALIZED | | | | | |
| 2000 | 24253 | | 4767 | | 0.579 |
| 2001 | 24429 | 0.7% | 4729 | -0.8% | 0.590 |
| 2002 | 24806 | 1.5% | 4988 | 5.5% | 0.568 |
| 2003 | 25077 | 1.1% | 5092 | 2.1% | 0.562 |
| 2004 | 25578 | 2.0% | 5020 | -1.4% | 0.580 |

NORMALIZED COMPOUND RATES OF GROWTH (%) 2000-2004
1.3% 1.3%

FORECAST

| | | | | | |
|------|-------|------|------|------|-------|
| 2005 | 25756 | 0.7% | 5116 | 1.9% | 0.575 |
| 2006 | 25818 | 0.2% | 5181 | 1.3% | 0.569 |
| 2007 | 26113 | 1.1% | 5274 | 1.8% | 0.565 |
| 2008 | 26489 | 1.4% | 5338 | 1.2% | 0.565 |
| 2009 | 26761 | 1.0% | 5412 | 1.4% | 0.564 |
| 2010 | 27156 | 1.5% | 5494 | 1.5% | 0.564 |
| 2011 | 27657 | 1.8% | 5590 | 1.7% | 0.565 |
| 2012 | 28323 | 2.4% | 5709 | 2.1% | 0.565 |
| 2013 | 28805 | 1.7% | 5822 | 2.0% | 0.565 |
| 2014 | 29394 | 2.0% | 5933 | 1.9% | 0.566 |

NORMALIZED COMPOUND RATE OF GROWTH (%) 2004-2014
1.4% 1.7%

1. SALES PLUS LOSSES AND COMPANY USE.
2. LOAD FACTOR = OUTPUT (MWH) / (8760 HOURS X SEASON PEAK (MW)).

Forecasted Reference Plan Peaks are based on normal peak day weather :

Peak Day Mean Daily Temperature = 83° F
Day Before Mean Daily Temperature = 81° F
Temperature Humidity Index = 83° F

Temperature Humidity Index = 0.4 * (dry bulb temperature + wet bulb temperature) + 15°

TABLE II-2 (Revised)
NORTHEAST UTILITIES SYSTEM
2005 LONG-RUN FORECAST
CONNECTICUT LIGHT AND POWER COMPANY
SUMMER PEAK VULNERABILITY DUE TO WEATHER
HISTORY 2000 - 2004
FORECAST 2005 - 2014

CL&P Docket No. F-05
Data Request HD-01
Dated 07/14/2005
Q-LF-001
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| SUMMER PEAK VULNERABILITY DUE TO WEATHER | | | | | | | | | | | |
|--|------------|-------------------------|-----------------------|------------|-------------------------|--------------------------|---------------------------|------------|-------------------------|--------------------------|---------------------------|
| SUMMER REFERENCE PLAN | | | | | | | | | | | |
| Year | Peak MW | Annual Change (%) | Load Factor (1) | HIGH | | | | LOW | | | |
| | | | | Peak MW | Annual Change (%) | Change from Ref MW | Change from Ref (%) | Peak MW | Annual Change (%) | Change from Ref MW | Change from Ref (%) |
| HISTORY | | | | | | | | | | | |
| 2000 | 4433 | | 0.618 | | | | | | | | |
| 2001 | 5126 | 15.6% | 0.542 | | | | | | | | |
| 2002 | 5183 | 1.1% | 0.548 | | | | | | | | |
| 2003 | 4980 | -3.9% | 0.577 | | | | | | | | |
| 2004 | 4818 | -3.3% | 0.602 | | | | | | | | |
| 2004 WEATHER NORMALIZED: | | | | | | | | | | | |
| | 5020 | 0.8% | | | | | | | | | |
| COMPOUND RATES OF GROWTH (%) 2000-2004 | | | | | | | | | | | |
| | 2.1% | | | | | | | | | | |
| FORECAST | | | | | | | | | | | |
| 2005 | 5116 | 6.2% | 0.579 | 5551 | 15.2% | 435 | 8.5% | 4741 | -1.6% | -375 | -7.3% |
| 2006 | 5181 | 1.3% | 0.581 | 5626 | 1.3% | 445 | 8.6% | 4798 | 1.2% | -383 | -7.4% |
| 2007 | 5274 | 1.8% | 0.579 | 5728 | 1.8% | 454 | 8.6% | 4883 | 1.8% | -391 | -7.4% |
| 2008 | 5338 | 1.2% | 0.581 | 5802 | 1.3% | 464 | 8.7% | 4939 | 1.1% | -399 | -7.5% |
| 2009 | 5412 | 1.4% | 0.583 | 5885 | 1.4% | 473 | 8.7% | 5005 | 1.3% | -407 | -7.5% |
| 2010 | 5494 | 1.5% | 0.587 | 5977 | 1.6% | 483 | 8.8% | 5079 | 1.5% | -415 | -7.6% |
| 2011 | 5590 | 1.7% | 0.590 | 6082 | 1.8% | 492 | 8.8% | 5166 | 1.7% | -424 | -7.6% |
| 2012 | 5709 | 2.1% | 0.591 | 6211 | 2.1% | 502 | 8.8% | 5277 | 2.1% | -432 | -7.6% |
| 2013 | 5822 | 2.0% | 0.594 | 6333 | 2.0% | 511 | 8.8% | 5382 | 2.0% | -440 | -7.6% |
| 2014 | 5933 | 1.9% | 0.598 | 6453 | 1.9% | 520 | 8.8% | 5485 | 1.9% | -448 | -7.5% |
| COMPOUND RATES OF GROWTH (%) 2004-2014 | | | | | | | | | | | |
| | 2.1% | | | 3.0% | | | | 1.3% | | | |
| NORMALIZED COMPOUND RATE OF GROWTH (%) 2004-2014 | | | | | | | | | | | |
| | 1.7% | | | 2.5% | | | | 0.9% | | | |

1. LOAD FACTOR = OUTPUT (MWH) / (8760 HOURS X SEASON PEAK (MW)).

Forecasted High Peaks are based on the weather that occurred on the 2001 peak day:

Peak Day Mean Daily Temperature = 88° F
Day Before Mean Daily Temperature = 86° F
Temperature Humidity Index = 87° F

Forecasted Low Peaks are based on the weather that occurred on the 2000 peak day:

Peak Day Mean Daily Temperature = 76° F
Day Before Mean Daily Temperature = 79° F
Temperature Humidity Index = 81° F

Temperature Humidity Index = 0.4 * (dry bulb temperature + wet bulb temperature) + 15°

The Connecticut Light and Power Company
Docket No. F-05

Late Filed Exhibit HD-01
Dated: 07/14/2005
Q- LF-002
Page 1 of 4

Witness: Charles R. Goodwin
Request from: Connecticut Siting Council

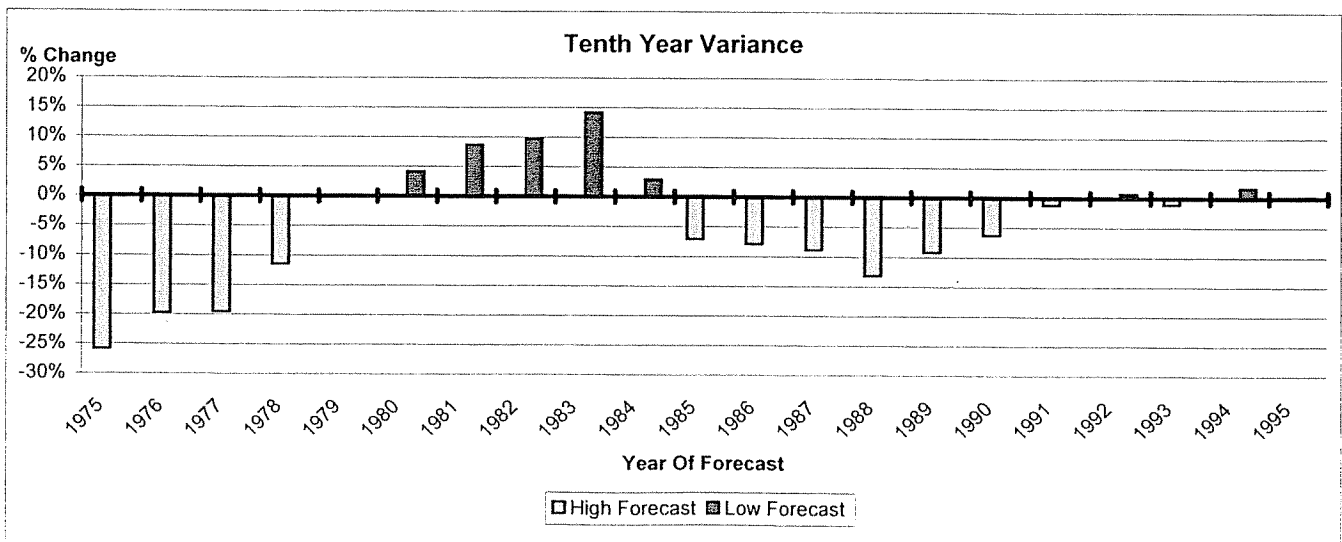
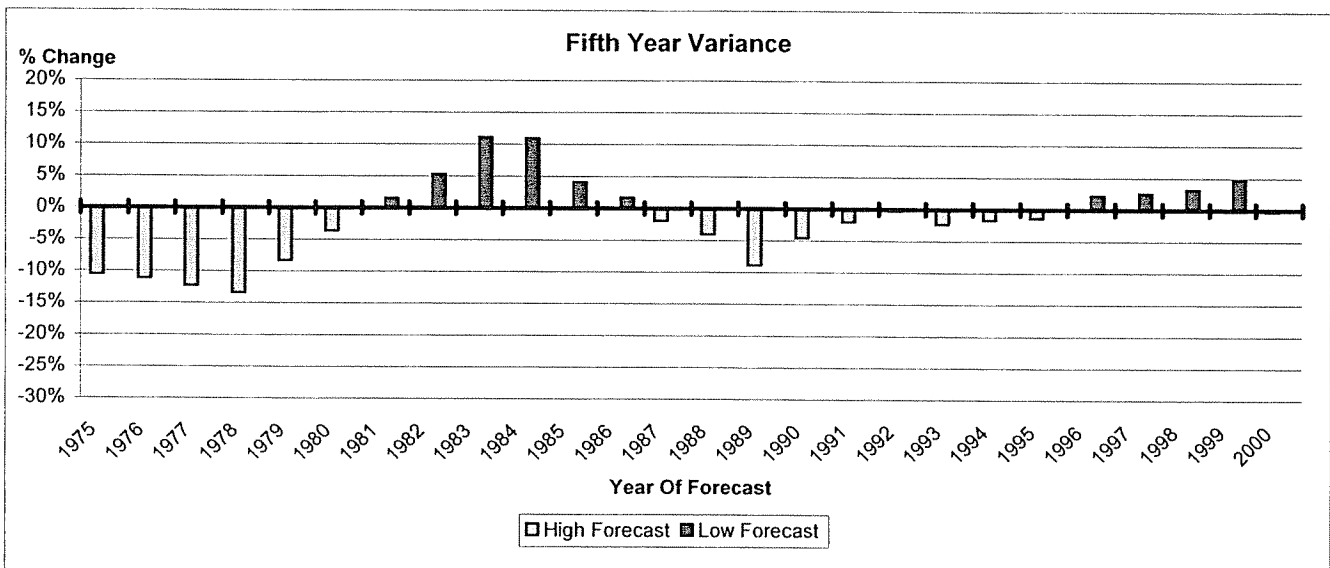
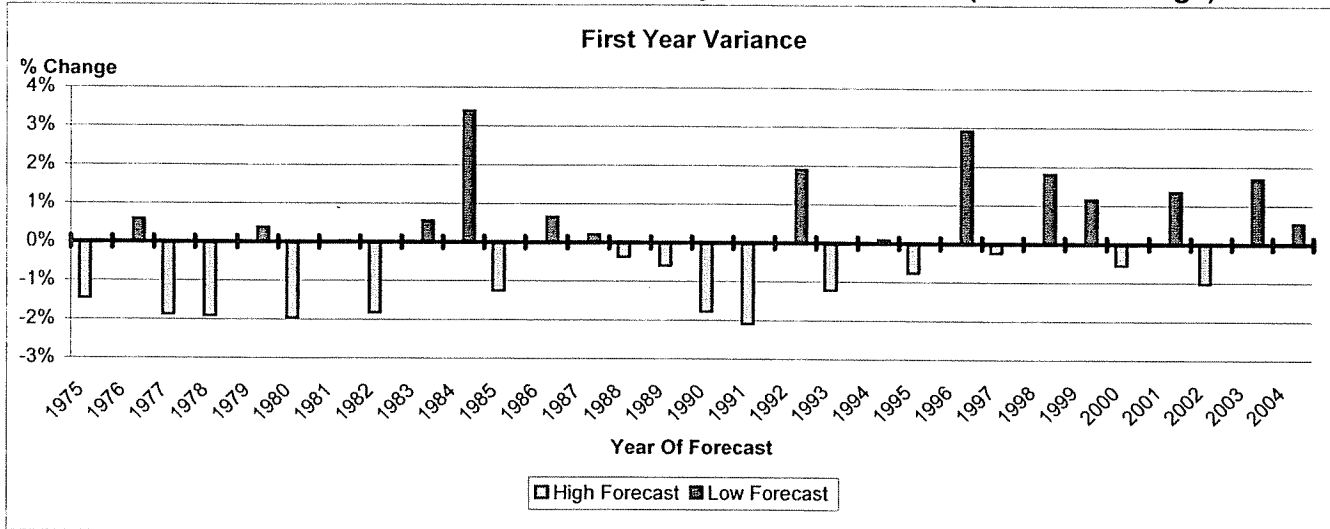
Question:

(Requested by P. Katz and P. Ashton) Please provide exhibits indicating the accuracy of CL&P's previous long-term forecasts.

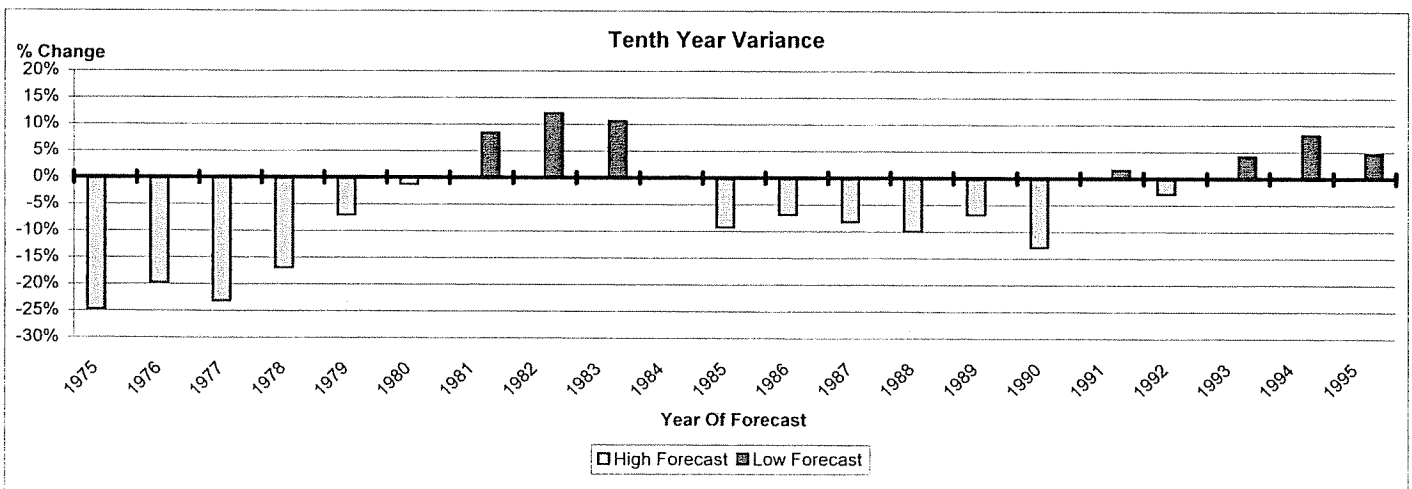
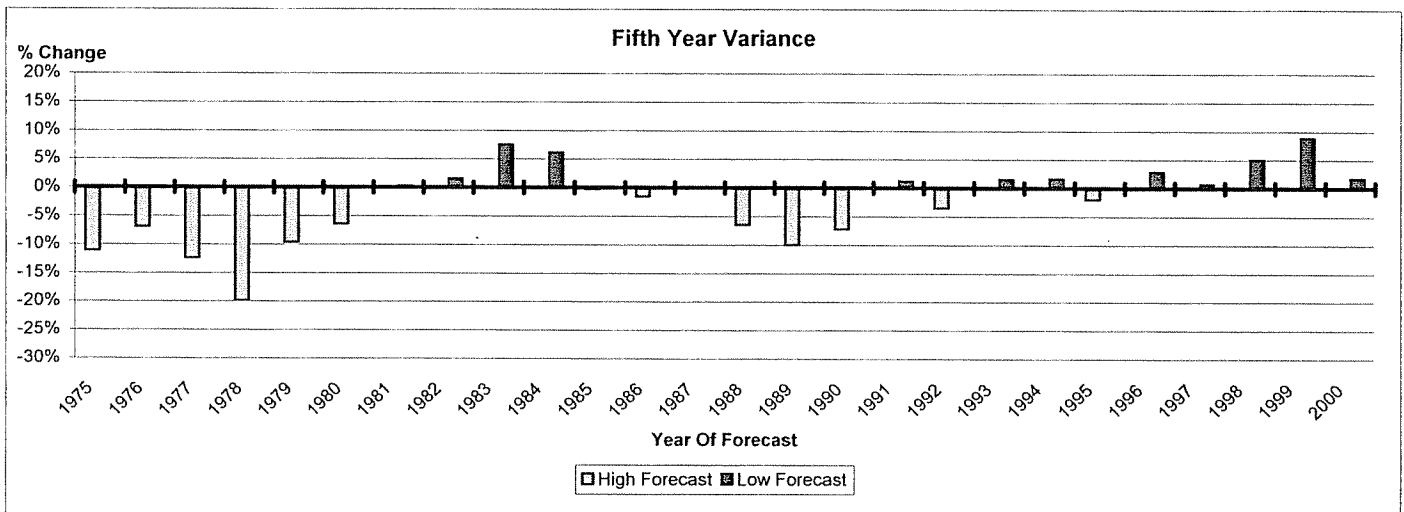
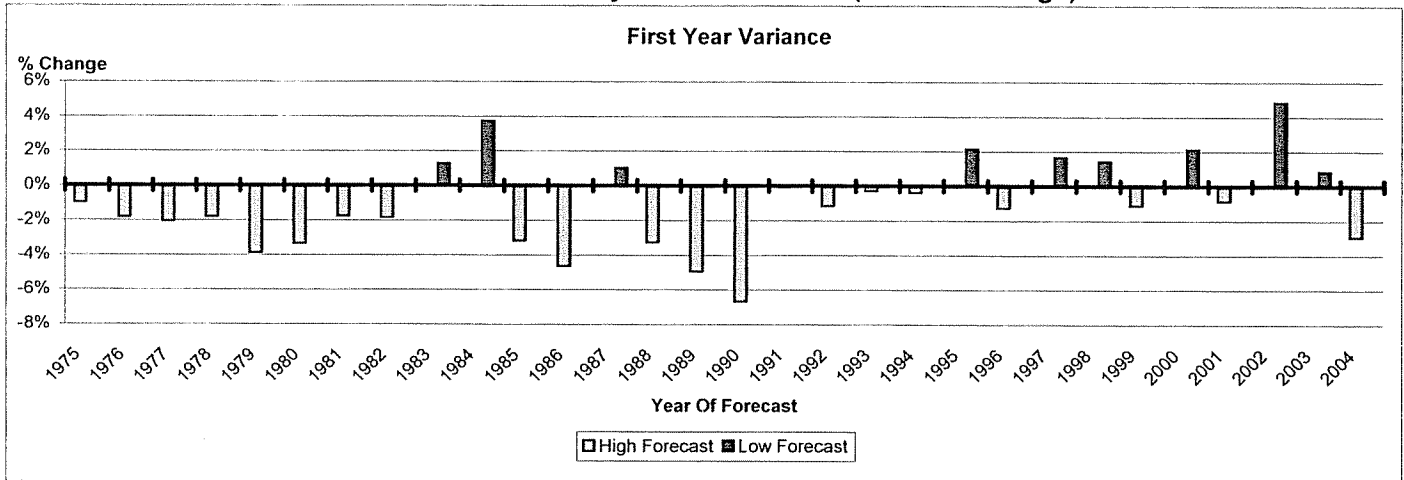
Response:

Page 2 shows the accuracy of the Company's total retail sales forecasts for 1, 5 and 10 years after normalizing for weather. In each graph, the year shown on the graph corresponds to the year the forecast was filed. For instance, on the bottom graph, the last bar shows that the forecast that was filed in 1995 was about 0.2% lower than the actual weather-normalized sales that occurred in the tenth year of the forecast, which was 2004. The graphs show that in the short run, the sales forecasts are unbiased and generally within 1-2% of the actual weather-normalized sales. However, the forecast models did not reflect the effects of the business cycles in the 1970s and 1980s, as evidenced by the patterns in the 5 and 10 year forecast variances. Page 3 shows the weather-normalized summer peak forecast accuracy rates in a similar fashion. These graphs show that peaks are more volatile than sales, in other words, customer behavior is more difficult to predict in a one hour period than over a one year period. Furthermore weather can have a much bigger impact on peaks than it does on sales. Page 4 shows the summer peak forecast accuracy based on actual peaks instead of weather-normalized peaks.

CL&P Retail Sales Forecast Variance by Year of Forecast (Percent Change)



CL&P Normalized Summer Peak Forecast Variance by Year of Forecast (Percent Change)



CL&P Actual Summer Peak Forecast Variance by Year of Forecast (Percent Change)

