

# **Central Maine Power Company**

## **Chapter 321 Methodology Report #3**

### **INTRODUCTION**

The Maine Public Utilities Commission (MPUC) sets the rules governing load obligation and settlement calculations in Chapter 321. Section 9 of Chapter 321 specifies that utilities file a report to the Commission annually that describes the benefits and costs of complying with the Chapter 321 requirements. This report is provided in compliance with that requirement.

### **BACKGROUND**

In order to perform the required settlement function, Central Maine Power (CMP), Bangor Hydro, and Maine Public Service report hourly loads by Competitive Energy Provider to ISO-NE. ISO-NE compares the hourly demand placed on the system to the resources delivered by each provider. The comparison is for purposes of settling each hourly and monthly capacity and energy market. Thus, accurate load information must be available to the ISO-NE for each hour of a day and for each provider to allocate providers' share of cost. Since most customers do not have hourly metering, load profiling is necessary for the customers to participate in retail choice.

CMP, Bangor Hydro and Maine Public Service agreed to use static load profiles as the profiling method for the residential, small commercial, and medium commercial customer classes. Static profiles are typical day representations for any season and day type combination. Static profiles do not reflect operating conditions of the day being estimated. All three utilities also use deemed profiles for street and area lights. Deemed profiles reflect engineering estimates of hourly loads. The profile will be based on the number of daylight hours on the 15<sup>th</sup> day of each month.

CMP uses Load Vision, a product of ICF Consulting, Inc., to perform load profiling and load estimation calculations. Load Vision is a profiling, scheduling, and settlement tool that is currently used by utilities and energy suppliers to forecast and settle loads in open access markets. The tool offers many capabilities, one of which is auditability. Information flowing into Load Vision is "time-stamped" so that prior settlement runs can be recalculated at any time. The Load Vision product is being used by all investor owned utilities in Maine.

### **STATIC PROFILE RESULTS**

CMP has reviewed the accuracy of the static profile results compared to actual system hourly loads. Attachment 1 is a table, which provides the average, daily kilowatt-hour percentage difference between the original settled loads and the reconciled loads for the months of March through September. The accuracy for the first seven months are well within the range CMP believes to be acceptable. The accuracy ranges from 0.16% difference for the August weekends to 8.66% difference for the March weekday. One explanation of the relatively higher difference

in March is that March, 2000 was significantly warmer this year than a normal March. However, for six of the seven months, the accuracy of the settled to the reconciled was below 3.5%.

The relatively high degree of accuracy argues for continuing the use of static load profiles. Static load profiles have the benefit of offering predictability to competitive energy providers. Predictability is also extremely important because the financial settlement at ISO-NE will reconcile what was scheduled ahead of time to the after-the-fact load estimation reported by CMP. Predictability helps in this regard. CMP has not received any complaints about the static profile method from competitive energy providers.

## **METHODOLOGY RECOMMENDATIONS**

Given the satisfactory results from the first seven months of using static load profiles and desired predictability provided by static profiles, CMP plans to continue to use static load profiles for the upcoming Standard Offer year beginning March 1, 2001. CMP will utilize a deemed profile for unmetered load (street and area lighting). Since street and area lighting load is so consistent and it differs from the three profile groups, it is reasonable to continue using another profile type, as allowed by Chapter 321.

CMP will continue to monitor the accuracy of the settled load compared to the reconciled load. CMP will also investigate other profiling methods for possible future use should competitive energy providers or other interested parties become concerned about the static profiling method. CMP's Methodology Report No. 2 describes four other general types of profiling methods, which are:

- Dynamic Metering
- Dynamic Modeling
- Proxy Day
- Calendar Rotation

Each of these methods varies in terms of cost, accuracy and predictability. Dynamic may be most accurate but is also most costly and not as predictable.

## **SUMMARY**

CMP will use a static profiling methodology for the three profile groups defined in Chapter 321. The profile will represent 12 seasons and 2 day types (weekday and weekend). Holidays will be estimated using a weekend profile. Unmetered load will be estimated using a deemed profile that is determined by the number of daylight hours on the 15<sup>th</sup> day of each month. Telemetered customers will be settled using their actual load. If the actual data is not available, a static profile for the individual customer will be used.