

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service
Commission held in the City of
Albany on August 20, 2003

COMMISSIONERS PRESENT:

William M. Flynn, Chairman
Thomas J. Dunleavy
James D. Bennett
Leonard A. Weiss
Neal N. Galvin

CASE 00-E-1273 - Proceeding on Motion of the Commission as to
the Rates, Charges, Rules and Regulations of
Central Hudson Gas and Electric Corporation for
Electric Service.

ORDER STAYING RELIABILITY
TARGETS AND RATE ADJUSTMENTS

(Issued and Effective September 29, 2003)

BY THE COMMISSION:

BACKGROUND

In the Order Establishing Rates issued October 25, 2001 in this proceeding, electric reliability service quality standards were established for Central Hudson Gas and Electric Corporation (Central Hudson). Under the standards, electric service reliability targets are set, measured by the System Average Interruption Frequency Index (SAIFI) and Customer Average Interruption Duration Index (CAIDI). A failure to meet either the SAIFI or the CAIDI target results in a rate adjustment, assessed in basis points calculated from the utility's return on equity.

For the SAIFI target, exceeding an index value of 1.10 results in a 6.5 basis point rate adjustment, and exceeding a value of 1.20 results in a 12.5 basis point rate adjustment.

For the CAIDI target, exceeding index values of 2.10 and 2.20 triggers the same respective basis point rate adjustments.

Under the Order Establishing Rates, however, the reliability targets were subject to reevaluation upon Central Hudson's installation of a new Outage Management System (OMS) for the collection and reporting of the outage data upon which the SAIFI and CAIDI indices are based. Reevaluation was deemed warranted if improvements in data collection following installation of OMS indicated a deterioration in reliability performance attributable to better data collection and analysis rather than to declining performance. In a petition dated March 31, 2003, Central Hudson requests that the review provided for under the Order Establishing Rates be initiated and that it be excused from a rate adjustment that would otherwise be imposed for failure to meet a SAIFI target.

THE PETITION

The installation of the new, computerized OMS system, Central Hudson claims, could suggest declines in its reliability performance even if no deterioration occurred. OMS-induced improvements in outage tracking over the previous, paper-based systems, the utility asserts, could result in the reporting of more and longer outages. Central Hudson presents data it believes demonstrates that OMS has had that effect, artificially inflating its reliability indices. According to the utility, its SAIFI index for 2002 would have been 0.95 under its previous reporting methods, but data collected upon installation of OMS yielded a 2002 value of 1.23.

Programmed into OMS, Central Hudson relates, is a model of the utility's distribution system, enabling the computer to trace an outage path from individual services to substation breakers. The model combines that data with other

data obtained from customers notifying the utility of the outage to arrive at a total customer interruption count. The model also predicts the type and location of the distribution equipment that is out of service based on the customer reporting and breaker operation information.

Detailing the differences between its prior information gathering system and OMS, Central Hudson explains that, prior to 2001, outages were recorded in a transmission and distribution system (TDS) computer program that compiled data field crews entered by hand onto pre-prepared forms after completion of outage restoration work.¹ The information from the forms was manually transcribed and entered into TDS. An estimate of the number of customers affected by an outage was then calculated from the TDS data and analysis of maps delineating the utility's system and the locations of its customers.

Both the TDS and OMS systems for compiling outage data, Central Hudson reports, were in place during calendar year 2002, with the TDS system enhanced by customer counts taken from OMS rather than from system maps. The utility adds that OMS was deployed to cross-check TDS data in an effort to identify interruptions that line crew field reports may have missed. According to Central Hudson, its experience with both systems in place demonstrates that OMS captures more service interruptions than the TDS system.² The additional outage data, the utility

¹ During 2001, the paper forms were replaced with portable, hand-held computers that could electronically stream field crew data entries directly into TDS.

² Central Hudson cites a study presented to the IEEE on July 22, 2002 for the proposition that automated outage systems routinely track outages better than systems that are not automated.

maintains, drove the 29% increase in its 2002 OMS-based SAIFI value over the 2001 TDS-based value.

Central Hudson states it is investigating OMS reporting capabilities further. Field crews, the utility relates, often find that OMS has not accurately predicted the actual electrical device that was interrupted or failed, but the computer system does not allow for correction of such an error. Moreover, Central Hudson contends that OMS tends to exaggerate the extent of an outage and the number of customers it actually affects.

Central Hudson stresses that OMS has assisted it in improving outage management since it was installed. The utility claims, however, the improvement in reliability has been masked by the changes in data collection and analysis attending installation of OMS, paradoxically resulting in the higher SAIFI value for 2002 over 2001. Consequently, the utility contends, the 2002 SAIFI value does not properly reflect its reliability performance, and no revenue adjustment should be imposed.

According to Central Hudson, the SAIFI reliability criteria for future years must be revisited and revised, to recognize the effects of OMS-induced changes. The new criteria, the utility contends, should reflect the data collection constraints and characteristics of the OMS system.³

DISCUSSION AND CONCLUSION

The discrepancies between the outage interruption data Central Hudson gathered under TDS and the outage interruption reports OMS generates are substantial. In the utility's Poughkeepsie district, 682 interruptions were reported under the traditional TDS tracking method for calendar year 2002. Cross-

³ The utility would develop the new criteria through consultation with the parties, with additional procedures imposed only if the parties cannot agree.

checking that data to OMS information, however, raised the number of total interruptions for the year to 1,700, an increase of about 149%. Although the disparities in this region were greater than in any of Central Hudson's four other operating districts, the divergence demonstrates that the two methods of data reporting are not comparable.⁴

While the introduction of OMS highlights the inadequacies in the TDS method, the accuracy and reliability of the OMS system has not been verified. Central Hudson reports it is investigating the operation of the OMS system. That investigation should continue. We expect the utility to correct any deficiencies uncovered as quickly as possible, to otherwise improve the accuracy of OMS data compilations, and to promptly and regularly apprise Staff of the utility's efforts and results.

The deficiencies in historic TDS data exposed upon installation of OMS undermine the basis for both the reliability targets and the rate adjustments directed in the Order Establishing Rates. It appears Central Hudson's reliance on field report inputs to TDS has historically yielded inaccurate outage information, rendering suspect the SAIFI and CAIDI index values previously relied upon. Central Hudson should have periodically reassessed its TDS methodology to ascertain if it was capturing all relevant interruption data.

Given the uncertainties posed by the TDS data, the SAIFI and CAIDI reliability targets and rate adjustments directed in the Order Establishing Rates lack an adequate foundation, and modifications may be appropriate. Before

⁴ The utility contends it was known that OMS would yield higher outage figures, but its citation to only one subjective study, unsupported by empirical evidence, does not satisfactorily explain the discrepancies between TDS and OMS data output or the actual performance of the OMS system.

modifications can be justified, however, an inquiry into the effects of the OMS system is required, including the extent to which the OMS SAIFI value for 2002 may be attributed to improved data collection. Consequently, further analysis of Central Hudson's reliability targets and rate adjustments is needed.

Accordingly, the existing Central Hudson electric service reliability standards are stayed, for calendar years 2002 and 2003, and through the end of Central Hudson's Rate Plan on June 30, 2004. For these time periods, we direct Staff to propose modifications, to the extent appropriate, to the existing SAIFI and CAIDI reliability targets, after an assessment of the reliability statistics developed subsequent to the introduction of the OMS system. The Staff proposal will include analysis of whether rate adjustments are warranted and should be imposed after this stay ends.⁵

The Commission orders:

1. The System Average Interruption Frequency Index and Customer Average Interruption Duration Index reliability targets established under the Order Establishing Rates issued October 25, 2001 in this proceeding, and the revenue adjustments imposed for failure to meet the reliability targets, are stayed until such time as is otherwise directed, subject to the discussion in the body of this Order.

2. This proceeding is continued.

By the Commission,

(SIGNED)

JACLYN A. BRILLING
Acting Secretary

⁵ Further procedures for establishing and implementing any needed modifications to the reliability targets and rate adjustments will be determined at a later time.