
CHAPTER 2

OVERVIEW OF THE ELECTRIC DISTRIBUTION RATE REGULATION FRAMEWORK

This chapter provides an overview of the electric distribution rate regulation framework that the Board is adopting with this handbook. The framework consists of three components:

- ◆ Use of a price cap PBR mechanism to adjust rates over the first term of the PBR, thus providing strong incentives to reduce costs and sharing the benefits of cost reduction with customers and shareholders
- ◆ Establishing base rates for the opening of the market
- ◆ Establishing regulatory processes to establish the base rates and adjust them on an annual basis over the term of the plan.

Each of these topics is discussed below.

2.1 USE OF PBR AS THE RATE REGULATING MECHANISM

PBR is being adopted as the rate regulation scheme for electric distribution utilities in the Province of Ontario. PBR has several features that make it an attractive regulatory mechanism:

- ◆ First, it provides strong incentives to the utilities to continue and expand their efforts to control cost and increase efficiency
- ◆ Second, by aligning the incentives for the utility with the objectives of the regulator, the time and effort needed in reviewing the actions and performance of the utilities may be minimized
- ◆ Third, it is likely to minimize the administrative burden
- ◆ Fourth, it should minimize the cost of regulation.

2.1.1 Objectives of PBR

PBR provides the distribution utilities with incentives to operate efficiently and innovate. It also gives consumers appropriate price signals, and allows the sharing in the gains from more efficient production, consumption and innovation.

PBR is a framework that permits greater pricing flexibility and allows the potential for higher profits based on superior performance than would a traditional regulatory framework such as cost-of-service regulation. It allows the utility to keep a portion of the rewards from innovation and provides a planning horizon, the term of the PBR plan, during which the mechanism for calculating price changes and earnings to be retained by the utility are fixed.

Consumers benefit from PBR in two ways. First, the rate adjustment mechanism includes a dividend to customers that results in lower prices to consumers initially – it is only after this dividend is paid that the distribution utility potentially gains from increased efficiency. Second, rates will be rebased to capture some of the operating efficiencies (that the company keeps for the first term of PBR) in the form of even lower rates at the beginning of the second term of PBR. By creating incentives that would accrue in a competitive market, PBR brings the benefits of increased competition, but preserves the important service quality standards. In addition, PBR provides some assurance that prices for non-competitive services will not be raised to allow prices for competitive services to be lowered.

The distribution companies also may benefit from PBR. PBR decouples the price that the utility charges for its service from its cost. Since price adjusts according to a simple formula, if the utility can reduce its costs by more than its consumer dividend, it can keep the cost savings in the form of higher operating profits. Thus, PBR provides strong incentives for utilities to find efficiencies in their operations, some of which are recaptured in the form of lower rates when the plan is revised.

Finally, PBR provides flexibility in adjusting rates over the term of the plan, enabling distribution companies to react to competitive pressures from competing fuels as well as, potential, competition on the fringe of monopoly services.

2.1.2 Objectives of First Generation PBR

The PBR mechanism proposed for the first generation PBR plan for the electric distribution utilities is a price cap plan with a three-year term . Under a cap mechanism, changes in the input price index, adjusted for a productivity offset, establishes the level of annual changes in the prices of the utility over the term of the plan as shown in equation 2-1:

$$\% \Delta P_j^t = \% \Delta IPI_{LDC}^t - \% \Delta PF_K + \% \Delta Z_j^t \quad [2-1]$$

where:

- $\% \Delta P_j^t$ = the percentage change in a distributor's price ceiling in year t ;
- $\% \Delta IPI_{LDC}^t$ = the percentage change in Ontario distributors' input prices from year $t-1$ to year t ;
- $\% \Delta PF_K$ = the productivity factor or index expressed as a constant percent change each year for any given utility selecting the K^{th} combination of productivity factor and ROE ceiling; and
- $\% \Delta Z_j^t$ = the extraordinary event adjustment factor expressed as a percent change from prices in year $t-1$ to prices in year t for the j^{th} utility. See Chapter 4.

This is a time of major change for the electric industry in Ontario and for the OEB itself. The imminent opening of the retail electric market and reorganization of the industry are posing challenges for all involved in the industry. Hence, in developing the first PBR for the electric distribution utilities, several objectives were established for the PBR mechanism:

- ♦ First, the first term of PBR should allow all involved to gain experience with PBR while minimizing the potential for “bad” outcomes. This means that the plan should be of relatively short duration, with a simple rate adjustment mechanism, and safeguards for both customers and utilities.
- ♦ Second, the PBR rate regulation scheme needs to be administratively simple. Hence, this regulatory scheme is intended to establish the proper incentives that allows regulation to be “light-handed” with considerably less regulatory oversight than in traditional cost-of-service models.
- ♦ Third, it became apparent in the PBR development process that there may be other regulatory mechanisms that hold great promise but which could not be implemented at this time due to lack of consistent data, insufficient time, or insufficient resources. Therefore, this first generation of PBR is intended to establish a base for future regulatory initiatives.

2.1.3 Second Generation PBR Mechanisms

As mentioned above, the first generation PBR mechanism will allow all in the industry to gain experience with PBR and will establish a baseline for gaining experience with PBR. A mid-term review will be held to design the next generation of PBR. While the regulatory mechanism will be reviewed at that time, the Board will also conduct a rebasing study to identify the level at which rates should be established for the next term of PBR.

In addition, utilities will be required to undertake cost allocation studies to better align rates in the second generation PBR with cost causation of the customer groups.

2.2 ESTABLISHING BASE RATES

Distribution utilities will be required to file base rates (which serve as the initial price in the price cap formula in equation 2-1) for several purposes:

- ♦ Because of the market opening, the commodity will be charged on the basis of the hourly spot price – transmission and IMO charges will be billed separately. Thus, the current rates need to be unbundled to uniquely identify those charges associated with distribution.
- ♦ In addition, certain adjustments to current rates may be warranted, such as for a market-based rate-of-return and for prudently incurred transition costs associated with the transition to the new market structure.

Currently, distributors have rates in place under Transitional Rate Orders. These rates were deemed to be applications for new rates, for which utilities are obligated to file evidence. A utility filing base rates under this rate handbook will have met the evidence filing obligation of its Transitional Rate Order.

2.3 THE RATE REGULATION PROCESS

There are three components to the rate regulation process for the first generation PBR plan:

- ♦ Annual PBR rate adjustments
- ♦ Service quality performance
- ♦ Filing requirements

An overview of each of these components is presented here.

2.3.1 The Rate Adjustment Process

On an annual basis, rates are adjusted according to the PBR rate adjustment mechanism. The utilities must file certain financial and performance data with the OEB. The OEB will use these data to calculate an input price index (the IPI term of equation 2-1) and provide this value to the utilities. Utilities will then be permitted to change their rates in accordance with equation 2-1 for the ensuing year.

2.3.2 Service Standards

Left unchecked, the economic incentives of the PBR mechanism might ultimately lead the utility to cut service quality and reliability to drive additional costs out of the utility. Hence, an important component of PBR is standards for service quality that ensure that service quality standards are maintained or enhanced. Currently, there is such diversity in the size, circumstances, and service standards of distribution utilities in the Province that it is difficult to establish appropriate service standards. However, there needs to be some accountability and movement towards service standards for the Province. Hence, this rate handbook establishes three customer service quality and three reliability indicators which will be monitored over the term of the plan. The indicators are:

- ♦ Time to connect new services
- ♦ Time to locate underground cables
- ♦ Appointments
- ♦ System average interruption duration index (SAIDI)
- ♦ System average interruption frequency index (SAIFI)
- ♦ Customer average interruption duration index (CAIDI)

In addition, there are minimum standards proposed for three customer service indicators that distributors are expected to effect through management policy. These are:

- ♦ Telephone accessibility
- ♦ Written response to inquiries
- ♦ Emergency response

2.3.3 Filing Requirements

Utilities will be required to file, on an annual basis, certain information necessary for monitoring their performance and for adjusting rates in accordance with the PBR mechanism. These data include:

- ♦ Financial data
- ♦ Energy and demand data
- ♦ PBR mechanism data

- ♦ Service quality data