



# **Timeline & Filing Requirements**

---

## TIMELINE AND FILING REQUIREMENTS

---

### *First Generation PBR Plan*

3 year term (2000 -2002)

- ◆ **Regulatory processes for (1) rate establishment and (2) rate adjustment**
- ◆ **Obligations of the distribution utilities**
- ◆ **Filing requirements**

---

# TIMELINE AND FILING REQUIREMENTS

---

## *Initial Rates Establishment Process*

- ◆ **Unbundled PBR rates to be in place by Market Opening**
- ◆ **Target date for unbundling of rates is October 1, 2000**
- ◆ **Filing of evidence on or before deadlines of:**
  - May 1, 2000                      Number of Customers > 30,000
  - August 1, 2000                  Number of Customers < 30,000

---

## **TIMELINE AND FILING REQUIREMENTS**

---

### *Initial Rates Establishment Process cont.*

- ◆ **File information for most recent calendar year**
- ◆ **Public Notice on filing of evidence with minimum notice period of 45 days**
- ◆ **Board review of evidence and comments from member of public**

---

## **TIMELINE AND FILING REQUIREMENTS**

---

### *Initial Rates Establishment Process cont.*

- ◆ **Board determination of necessity for written/oral hearing**
- ◆ **No hearing**
  - **Board issues interim rate order**
  - **Final rate order in 90 days**
- ◆ **Hearing**
  - **Board issues procedural orders**
  - **Considers issue of interim rate order**

---

## **TIMELINE AND FILING REQUIREMENTS**

---

### *Annual PBR Rate Adjustment Process*

- ◆ **Rates adjusted annually according to PBR formula**
- ◆ **Data to be filed as specified in rate handbook**
- ◆ **Data filing includes transition/extraordinary costs**

---

# **TIMELINE AND FILING REQUIREMENTS**

---

## *Annual Filing Schedule*

- ◆ **Filing deadline February 1 of 2001 and 2002**
- ◆ **Board issues input price index for PBR formula on February 15 of each year**
- ◆ **Rate change implemented March 1 of each year**
- ◆ **Filing of audited financial statements by June 1 of each year**

---

## **TIMELINE AND FILING REQUIREMENTS**

---

### *Implementation of Rate Change*

- ◆ **Distributor may choose not to implement an allowed rate increase**
- ◆ **Distributor must implement rate reduction**
- ◆ **Board may defer implementation of transition/extraordinary costs from rate change pending review**



---

# TIMELINE AND FILING REQUIREMENTS

---

## *Filing Requirements*

- ◆ **Financial information**
- ◆ **Energy delivery information**
- ◆ **PBR related information**
- ◆ **Service Quality information**

---

# **TIMELINE AND FILING REQUIREMENTS**

---

## *Financial Information*

- ◆ **Filed according to Board's Accounting Procedures Handbook**
- ◆ **Details on accounts provided in Appendix B**

---

## TIMELINE AND FILING REQUIREMENTS

---

### *Financial Information cont.*

- ◆ **Includes information on:**
  - Operating expenses
  - Source of funds
  - Application of funds
  - Working capital
  - Miscellaneous (i.e., inventory, debt ratio)
  
- ◆ **Similar to financial information filed in past**

---

# TIMELINE AND FILING REQUIREMENTS

---

## *Energy Delivery Information*

- ◆ **Wholesale**
  - Monthly kW amounts and applicable rates
  - Monthly kWh amounts and applicable rates
  - Monthly billing amounts
  
- ◆ **Retail by customer class:**
  - Annual kW sales and applicable rates
  - Annual kWh sales and applicable rates
  - Annual revenue
  
- ◆ **Annual system line losses**

---

# TIMELINE AND FILING REQUIREMENTS

---

## *PBR Related Information*

- ◆ **PBR data collected in 1999 to determine distributors' IPI and productivity performance**
- ◆ **Annual Data required for annual update of IPI**
- ◆ **Information required on:**
  - Labour
  - Capital assets and composition
  - Cost of power and line losses
  - OM&A
  - Billing and collecting

---

# TIMELINE AND FILING REQUIREMENTS

---

## *Service Quality Information*

- ◆ **Customer Service Indicators**
  - Connection of Services
  - Underground Cable Locates
  - Appointments
  
- ◆ **System Reliability**
  - System Average Interruption Duration Index
  - System Average Interruption Frequency Index
  - Customer Average Interruption Duration Index



# Initial Rates

---

# INITIAL RATES

---

## *Establishing Base Rates*

- ◆ **Base rates are the unbundled rates adjusted for a market-based rate of return and prudent and material transition costs.**
  - Unbundling current rates into distribution and commodity components to construct class-specific distribution revenue requirement
  - Adjustments to these initial distribution revenue requirements (i.e., transition costs)
  - Distribution rate design



---

# INITIAL RATES

---

## *Unbundling Current Rates*

- ◆ Initial unbundled rates based on existing distributor's rates
- ◆ Proposed method assumes existing rates recover costs appropriately for rate classes
- ◆ Rate class initial revenue requirement constructed as follows:  
Class Distribution Revenue Requirement = Class Revenue – Allocated Power Cost
- ◆ Ensures class revenue neutrality at existing rates

---

# INITIAL RATES

---

## *Class Revenue at Existing Rates*

- ◆ Use most recent actual customer class kW and kWh amounts
- ◆ Apply existing utility rates for customer class to obtain class revenue

Example: RESIDENTIAL CLASS REVENUE REQUIREMENT AT EXISTING RATES

| Block          | Forecast Sales<br>in Block<br>kWh | Block<br>Rate<br>\$/kWh | Revenue<br>Requirement<br>at Existing<br>Rates<br>\$ |
|----------------|-----------------------------------|-------------------------|--|
| Fist 250 kWh   | 2,185,549                         | 0.0938                  | 205,088  |
| Additional kWh | 129,044,752                       | 0.0808                  | 10,429,407   |
| Total          |                                   |                         | 10,634,495   |

---

## INITIAL RATES

---

### *Allocate Cost of Power (COP)*

- ◆ Load profile model based on 1980's load data research used
- ◆ Model used to determine COP for all customer classes except large /intermediate use customers
- ◆ Actual data used for large/intermediate use customers
- ◆ Load research coincident demand and energy weighting factors provided in rate handbook

---

## INITIAL RATES

---

### *Allocate Cost of Power (COP) cont.*

- ◆ Most recent 5-year average distribution system losses (DSL) applied
- ◆ Large use system losses assumed at 1%
- ◆ DSL adjusted for large use system losses where utility has large use customer(s)
- ◆ Allocated kW and kWh multiplied by wholesale rates to get class COP

---

# INITIAL RATES

---

## *Distribution Revenue Requirement*

- ◆ Obtain class distribution revenue requirement by subtracting cost of power from class revenue requirement
- ◆ Adjustment to initial class revenue requirement
  - Market-based rate of return
  - Transition and extraordinary event costs

---

# INITIAL RATES

---

## *Distribution Rate Design.*

- ◆ Two-part rate:
  - **Monthly service charge**
  - **kW or kWh rate that reflects differences in customers' usage of system**
  
- ◆ kW or kWh rate reflects incremental distribution cost (provided in rate handbook)
  
- ◆ Residual revenue requirement is divided by number of customers in class and by 12 to obtain monthly service charge/customer.

---

# INITIAL RATES

---

## *Cost of Power and Losses*

- ◆ Prior to market opening
  - for energy, transmission, distribution system losses (DSL) take class COP and divide by class retail kWh
  
- ◆ After market opening
  - COP and transmission calculated according to retail settlement code
  - DSL for non-large use customers is 5-year average loss rate (1)
  - DSL for large-use customers is 1% (1)
  - DSL charge puts distributor at risk for losses

**DSL charge = (1) x (customer's kWh) x (rate as determined by settlement system)**

---

## INITIAL RATES

---

### *Contributed Capital (CC)*

- ◆ CC currently in rate base will remain
- ◆ Return earned on CC in rate base until fully depreciated
- ◆ Rate of return at utility's 1994-1999 average ROE level
- ◆ For amalgamations equity weighted average used floor of 0% and ceiling of 9.75%
- ◆ Going forward under Board's regulation CC will not be rate based



---

# INITIAL RATES

---

## *Market-Based Rate of Return (MBRR)*

- ◆ Rate of return level up to market-based level for rate base exclusive of CC

- ◆ Formula:

$$\text{MBRR} = (\text{Rate Base}-\text{CC}) \times \frac{[\text{CER} \times (.0975-\text{Actual ROE})+(1-\text{CER}) \times \text{DR}] + (\text{CC} \times \text{CC return rate})}{(1-\text{effective tax rate})}$$

CER = common equity ratio    1-CER = Debt to capital ratio    DR = Debt rate  
(CER, 1-CER, and DR provided in Table 3-1 in rate handbook)

---

## INITIAL RATES

---

### *Example of MBRR Calculation*

- ◆ Distributor with rate base of \$60 million
- ◆ Of which \$10 million is CC and distributor earned an average equity ROE of 5.00% over 1994-1999
- ◆ Earned 0% ROE for 1999
- ◆ Faces a 43.5% marginal payment in lieu of taxes (PILS) tax rate

$$\begin{aligned}\text{MBRR} &= (\$60 \text{ MM} - \$10 \text{ MM}) \times (((.5 \times (.0975 - 0)) / (1 - .435)) + .5 \times .0725) + (\$10 \text{ MM} \times .0500) \\ &= (\$50 \text{ MM} \times .122533) + (\$10 \times .0500) \\ &= \$6.126655 \text{ MM} + \$0.500 \text{ MM} \\ &= \$6,626,655\end{aligned}$$

---

# INITIAL RATES

---

## *Transition and Extraordinary Event Cost Adjustment*

- ◆ Significant costs associated with transition
  - Recurring costs
  - One-time cost
- ◆ May include costs incurred prior to filing of evidence in initial rates
- ◆ These costs must be identified and justified

---

## INITIAL RATES

---

### *Transition and Extraordinary Event Cost Adjustment Cont.*

- ◆ Must meet four criteria test: causality, materiality, lack of utility control and prudence
- ◆ If capitalized need to adjust initial revenue requirement
- ◆ If expensed need to include in balancing account

---

## INITIAL RATES

---

### *Calculating Final Class Revenue Requirement*

- ◆ Adjustments to revenue requirements for MBRR and transition /extraordinary costs summed
- ◆ Summed amount allocated to customer classes in proportion to initial class revenue requirements

---

# INITIAL RATES

---

## *Potential Rate Impact*

- ◆ If rate impact of MBRR is excessive
  - Distributor may decide not to earn up to MBRR
  
- ◆ If rate impact of transition/extraordinary costs are excessive
  - Distributor may decide to use deferral account(s) to spread costs over future years



# Service Quality

---

# SERVICE QUALITY

---

## *Service Quality (SQ) Performance Indicators*

- ◆ Included in PBR plan to discourage sacrificing of service quality in pursuit of economic incentives
- ◆ Task Force survey results indicate large variation in monitoring of SQ indicators
- ◆ Use first PBR term to collect data on SQ
- ◆ Establish standards with economic consequences for second PBR term.



---

# SERVICE QUALITY

---

## *Service Quality Performance Indicators for First PBR Plan*

### Customer Service

- ◆ Minimum standards for three customer service indicators
- ◆ Establish standard through management policy for three customer service indicators

### Reliability

- ◆ Distributor's historic performance sets minimum standard for three service quality indicators
- ◆ Distributors that have not monitored service quality in past to start

---

# SERVICE QUALITY

---

## *Customer Service Performance Indicators*

- ◆ Customer service performance measures direct contact with the customer
- ◆ Minimum guidelines intended to maintain service quality while providing flexibility to set levels to demands of customers above the minimum guideline
- ◆ Minimum standards must be achieved for a minimum specified percentage of the time

---

# SERVICE QUALITY

---

## *Customer Service Requiring Reporting*

Customer service standards that requires monitoring and reporting:

- ◆ Connection of New Services
- ◆ Underground Cable Locates
- ◆ Appointments

---

# SERVICE QUALITY

---

## *Connection of New Services*

New low voltage (<750 volts) service

- ◆ Connected within 5 working days from day on which conditions of service are satisfied (e.g., safety inspection)
- ◆ 100% of the time

New high voltage (>750 volts) service

- ◆ Connected within 10 working days from day on which conditions of service are satisfied (e.g., safety inspection)
- ◆ At least 90% of the time

---

# SERVICE QUALITY

---

## *Underground Cable Locates*

Underground cable locates

- ◆ Completed within 5 working days of customer's request
- ◆ Or if date specified, within 5 working days of requested date
- ◆ At least 90% of the time
- ◆ Excludes emergency locates

---

# SERVICE QUALITY

---

## *Appointments*

Appointments to meet customers at their premises/work site for utility business

- ◆ At minimum offer choice of morning or afternoon
- ◆ Appointments must be met at least 90% of time
- ◆ Customer must be notified of cancellation/postponement

---

# SERVICE QUALITY

---

## *Customer Service - Management Policy*

Customer service standards to be established through management policy

- ◆ Telephone accessibility
- ◆ Written responses to inquiries
- ◆ Emergency Response

---

# SERVICE QUALITY

---

## *Telephone Accessibility*

- ◆ Time to answer general inquiry telephone calls
- ◆ Telephone must be answered with 30 seconds
- ◆ At least 65% of the time
- ◆ Provision of voice mailbox/answering machine does not qualify



---

# SERVICE QUALITY

---

## *Written Responses to Inquiries*

Time to respond to requests for written information on account by a customer/agent of customer

- ◆ Within 10 working days of receipt of request
- ◆ At least 80% of the time

---

# SERVICE QUALITY

---

## *Emergency Response*

Arrival of qualified service person on site in response to emergency trouble calls (e.g. fire, ambulance, police).

- Within 120 minutes in rural areas
- Within 60 minutes in urban areas
- At least 80% of the time

---

# SERVICE QUALITY

---

## *Service Reliability*

Service reliability indices measure system outage statistics

- System Average Interruption Duration Index (SAIDI)
- System Average Interruption Frequency Index (SAIFI)
- Customer Average Interruption Duration Index (CAIDI)

---

# SERVICE QUALITY

---

## *System Average Interruption Duration Index*

SAIDI expresses the length of outage customers experience on average in a year

- Includes all planned and unplanned interruptions of  $\geq 1$  minute
- Defined as total hours of power interruptions normalized per customer served

$$\text{SAIDI} = \frac{\text{Total Customer-Hours of Interruption}}{\text{Total Number of Customers Served}}$$

---

# SERVICE QUALITY

---

## *System Average Interruption Frequency Index*

SAIFI expresses the average number of interruptions each customer experiences

- Includes all planned and unplanned interruptions of  $\geq$  1 minute
- Defined as number of interruptions normalized per customer served

$$\text{SAIFI} = \frac{\text{Total Customer Interruptions}}{\text{Total Number of Customer Served}}$$

---

# SERVICE QUALITY

---

## *Customer Average Interruption Duration Index*

CAIDI expresses the speed at which power is restored

- Includes all planned and unplanned interruptions of  $\geq 1$  minute
- Defined as the average duration of interruptions in year

$$\text{CAIDI} = \frac{\text{SAIDI}}{\text{SAIFI}} = \frac{\text{Total Customer-Hours of Interruptions}}{\text{Total Number of Customer Interruptions}}$$

---

# SERVICE QUALITY

---

## *Cause of Service Interruption*

Monitoring of cause of outages provides information on remedial work required

- List provided in draft rate handbook
  - e.g. Tree contact, defective equipment, adverse weather
- Reporting not mandatory
- If review of reliability required, distributor must be able to produce information

---

# SERVICE QUALITY

---

## *Remedial Activity*

- For first generation PBR term, distributors who fall below minimum standard, must include remedial action plan in annual filing.
- For second PBR term, sufficient data will have been collected to set industry service quality performance standards
- In second term, PBR incentives will be introduced around these standards with economic consequences