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Approval, Evaluation Criteria for other T&D Investments

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Distribution Investments

- As with all utility investments that a utility seeks ratepayer recovery for, investments must be “prudent”

In evaluating “prudence,” Commission considers whether the investment is necessary, least-cost option, provides benefits, consistent with what a prudent manager would do, etc.

- Unlike transmission investments, most distribution investments do not require pre-approval.

Distribution Investments – Timing of Regulatory Review

- Typically, utilities make decisions about distribution investments without regulatory approval, then, at the time the utility seeks to include the investment in rates, regulators review the investment to ensure it was “prudent.”
- However, for large or extraordinary projects, utilities sometimes seek pre-approval of project before investing, to avoid the risk of a large disallowance. Pre-approval may, or may not, include an accounting order (capital tracker) that allows deferral of project costs until included in rates.

Pre-Approval Review

Advantages:

- Allows regulatory guidance/input prior to investment;
- If there is a capital tracker, only actual, known costs are included in rates.

Disadvantages:

- Can be difficult to address proper treatment of any changes in circumstance/costs (e.g., differences between estimates used in gaining approval and actual costs incurred);
- Can cloud “ownership” of problems/delays with project;
- Has potential to slow/delay implementation of project;
- Less incentives for efficiencies if a capital tracker (accounting order) is included in approval.

Traditional Approval (After-the-Fact Review)

Advantages:

- No disconnect between assumptions used for approval of project and what is included in rates;
- Does not delay project;

Disadvantages:

- Does not allow regulatory guidance in the direction of project;
- Provides limited to no opportunity to deal with decisions that were not necessarily “imprudent” but would not have been the preferred solution of regulators;

Case Study – Pre-Approval: CMP’s AMI Investment

Project Overview:

- Very large investment (nearly \$200M total), offset approximately ½ by DOE federal grant (utility investment approximately \$100M);
- Project involved replacement of all 600,000 analog meters with digital, AMI meters as well as installation of hardware, software, and business functions capable of operating/aggregating/billing data from new digital meters;

Projected Benefits

- Expected to provide:
 - automated meter reading,
 - automated disconnections,
 - enhanced storm recovery information),
 - customer electricity generation supply benefits;
- At time of approval, expected to result in a net \$25M utility operational savings over the life of the project;

Anticipated project schedule at time of approval:

- Commission approved project in February, 2010, allowed deferral of investment until put into rates;
- Implementation of meter installation expected to be completed end of year 2012;
- Anticipated to go into rates starting in July, 2010
- Supply-side programs to be offered/implemented to customers some time after implementation (not defined);

Things that went well with this project:

- Despite it being a relatively new technology to the industry, capital costs came in near estimates (even slightly below);
- Meter installations completed essentially on-schedule;
- Few implementation problems with switching meter systems for standard metering/billing functions;

Things that did not go well with this project:

- Substantial differences between actual AMI operation functions and costs as compared to the assumptions at the time of approval (driven, in part, by Commission decision to allow customers the option of keeping an analog meter but also by changes in utility's decisions regarding AMI operations);
- Tracking/verification of savings very difficult (positions reorganized, business functions redefined, employees reassigned), even with a management audit of project;
- Given the difficulty in quantifying operational savings/incremental expense, long delay in putting into rates which caused high deferral amount to build up (initially expected to go into rates mid-2010. Did not go into rates until mid-2013);
- Miscommunication/misunderstanding/misinformation regarding amount of additional systems necessary to implement electricity supply programs (i.e., dynamic pricing). Such supply side programs largely will not be available until after new billing system is implemented (currently estimated at \$50 - \$60M).

Customer-Specific Investments

Some variations exist between utilities, but customer-specific investments are often assigned primarily or exclusively to the customer causing the cost.

Examples:

- Electric line extensions;
- Special equipment;

Electric Line-Extensions Investments

Line extension investments different than most facilities in that:

- They are both a core electric utility service (the utility is obligated to provide the service) but are also subject to competition (customers may contract with private contractors to build their line extensions;
- Customers may choose to retain ownership (and maintenance obligations) in some circumstances;
- Additional customers that take service from the line must share the cost of construction (and the utility is obligated to retain records and bill for the sharing) regardless of whether the line was constructed by the utility or a private contractor.

Electric Line-Extensions Investments

Line extension investments fall into two major categories:

- Single-Phase (primarily residential and smaller commercial customers).
 - Generally priced on an average, per-foot basis; Adders for ledge and trimming.
- Poly-Phase (primarily larger commercial and industrial customers)
 - Priced on a “design” basis (the actual cost of the design for that line extension)

Single-Phase Per-Foot Pricing

Single-Phase line extensions were previously priced on a design-basis. Significant problems existed, causing change to per-foot pricing.

Advantages of Average/Per-foot Pricing:

- Simple to explain and justify to customers;
- Quotes can be provided very quickly;

Disadvantages of Average/Per-foot Pricing:

- Has been very controversial with private contractors as some customers pay less than what the “design-based” price would have been (resulted in legislation that requires price reset every year based on achieving +/- 5% of actual cost);
- Creates incentive for customers to choose the utility to build more expensive/difficult lines, which can result in skewing the average cost;

CMP's Poly-Phase Line Extension Pricing

- If equipment is not scheduled for replacement within two years, customer gets a “depreciation credit” for utility infrastructure replaced as part of polyphase line extensions.

$$\text{Depreciation Credit} = \text{Replacement Value} * \left(\frac{\text{Age of Equipment}}{\text{Book life of Equipment}} \right)$$

- If equipment is scheduled for replacement within two years, customer is not required to pay at all.

Line Extension Cost Sharing Pricing

- When an additional customer connects to a line extension within 20 years, the costs of the line extension shall be reallocated as follows:

Each customer's responsibility for line extension costs will be equal to the length of the line extension that serves that customer exclusively plus, for each segment of the line extension that serves two or more customers, the length of that segment divided by the number of customers served by the segment, all divided by the total length of the line extension.

Questions?

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