Multi-Year Rate Plan Design Considerations for Virginia

Virginia Energy performance-based regulation stakeholder process

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Presentation Overview

1. Current regulatory framework incentives
2. MRP risks and potential benefits
3. Incentives provided by MRP components
4. Assessment of MRP design elements for Virginia
5. Evaluation criteria for an MRP framework

Regulatory Framework in Virginia

Regulatory Element	Traditional Cost of Service Regulation	Virginia Modified Cost of Service Regulation
Frequency of rate cases	As needed	• Every 2 years per the VA Electric Utility Regulation Act
Base rate adjustments between rate cases	None	• None
Earnings Adjustment	None	• Earnings test measures earnings of utility over a 13-month historic period. Overearnings shared with customers or fully credited above deadband depending on utility.
Trackers	May have limited number of trackers for fuel costs, energy efficiency program costs, and certain other costs deemed to be largely outside of utility's control	• Widespread use of trackers
Impact on Utility Incentives		
Profit incentives	• Increase sales (throughput incentive) and oppose load-reducing measures (energy efficiency, distributed generation) • Increase rate base (if allowed ROE > actual cost of capital)	• Increase sales (throughput incentive) and oppose load-reducing measures (energy efficiency, distributed generation) • Increase rate base (if allowed ROE > actual cost of capital)
Cost containment incentives	Limited: regulatory lag provides some incentive to control costs between rate cases, but ability to file a rate case as needed attenuates this.	• Very limited: o Cost trackers erode cost control incentive by reconciling revenues to actual costs each year. o Two-year rate case cadence results in limited regulatory lag

Revenue Adjustment Clauses (RACs)

- Currently ~50% of costs are recovered through RACs, and approximately 75% of Dominion's forecasted investments could be eligible for recovery in RACs

- Inclusion of RACs in the utility's base rates would:
  - Help rebalance risk across utility customers and shareholders and
  - Provide incentives for cost containment

> "A defining characteristic of an adjustment clause is that it effectively **shifts the risk** … from shareholders to customers, because… the company is able to change its rates to recover its costs on a current basis, without any negative effect on the bottom line and without the expense and delay that accompanies a rate case filing."
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> *-S&P Global Market Intelligence, 2017*

Is an MRP a better option than current framework?

It depends on the design

Well-designed MRPs

- Customer benefits:
  - Encourage the utility to find cost-efficiencies
  - Creates more predictable rates
- Utility benefits:
  - Provide more predictable revenue
  - Provide more timely recovery of costs, which bolsters financial health.

Poorly-designed MRPs

- Allow utilities to recover costs more quickly without increasing benefits to customers or advancing energy policy goals
- Reduce regulatory lag with no commensurate strengthening of cost containment incentives
- Shift risk to ratepayers if Commission pre-approves investments and costs
- Exploit information asymmetries, particularly through reliance on cost forecasts

A cautionary example from a poorly-designed MRP

- Maryland's so-called "MRP" functions more like a broad cost tracker, rather than a true MRP.
  - Annual revenue requirements set based on cost forecasts.
  - A reconciliation process during and after MRP period generally allows utilities to recover their actual spending above forecasts (less carrying costs) and return any under-spend to ratepayers.
- Result: Significant rate increases
  - Customers have experienced an average annual rate increase of more than 6%
  - Utilities have in some cases significantly exceeded their forecasted budgets (e.g., BGE's actual spend was 43% higher than its budget forecast)
- Why?
  - Lower cost containment incentives than under traditional cost-of-service regulation
    - Utilities recover any spending above their budgets (less carrying costs)
    - Utilities do not benefit from reducing spending below budgets

Considering incentives in MRP design

MRP Design Element	Impact on Utility Incentives
1. Revenue requirement included in MRP (e.g., limited to O&M spending, or also including capital costs)	More costs in MRP = stronger cost containment incentive
2. Attrition relief mechanism (how revenues are adjusted during MRP)	External cost indexes = stronger cost containment incentive
3. Reconciliation of revenues to actual costs	Reconciliations remove cost containment incentives
4. Earnings Sharing Mechanism	Sharing utility over-earnings with ratepayers reduces utility cost containment incentives (but can reduce risk to ratepayers)
5. Rate Case Stay-Out Period	Longer stay-out period = stronger cost containment incentive

- It is paramount to view design elements in a comprehensive manner to understand potential adverse outcomes.

1. Revenue requirements included in the MRP

- The potential benefits of an MRP will be diluted if a utility's revenue requirement is largely recovered through trackers outside of base rates.
- The majority of utility costs should be included in the MRP's revenue cap
- Trackers and riders should only be used for extraordinary costs or those the utility has no control over:
  - Specific unusual, large investments
  - Recurring pass-through or mandated costs
  - One-time extraordinary costs
- ***Can Revenue Adjustment Clauses (RACs) be incorporated into an MRP's revenue requirement?***

2. Attrition Relief Mechanisms (ARM)

- The revenue requirement can be escalated over the MRP term in two ways:
  1. Cost forecasts: based on a utility's cost projections, both older capital investments (i.e., depreciation expense) and new capital additions must be accounted for.
  2. External index: escalates test year revenue requirement for each year of the MRP according to an external index (e.g., inflation)
- An MRP does not have to escalate all costs the same way.
  - Southern California Edison (SCE)
    1. Non-labor O&M escalation based on an IHS Global Insight index
    2. Capital-related cost are escalated based on a composite rate developed from IHS Global Insight forecasts of the Handy-Whitman Index and a utility-specific index based on recorded General Plant costs for recent years

Considerations for Virgina's MRP framework:

- How should generation costs (RACs) be escalated in an MRP?
- Should generation be escalated differently from O&M and distribution capital costs?

2. Attrition Relief Mechanisms (ARM)

Generation costs can be included in an MRP and have been escalated using different approaches

Method	Examples	Benefits	Risks
Utility Cost Forecast	• FPL • Duke Progress NC • PG&E (capital)	• Can enable the utility's revenue requirement to accommodate unusual investment trajectories	• Inflated cost forecasts
External Index	• Ontario Power Generation • PG&E (O&M)	• Does not rely on utility cost forecasts that may be subject to error or inflated • Does not require that specific costs be reviewed and pre-approved at the beginning of the MRP	• Index may not be accurate or relevant • May not provide sufficient revenue increases to accommodate large step increases in new load

3. Earning Sharing Mechanisms (ESM)

Current Design

- **Dominion**: 85% of earnings are credited to customers and Dominion retains 25%. If the utility earned more than 150 basis points above fair return, all earnings above 150 basis points are returned to customers.
- **APCo**: customers receive 100% of the earnings above 100 basis points

- Currently utilities face very little risk, so allowing the utility to retain any portion of over-earnings is unnecessary

Considerations for MRP design

- Under an MRP, a utility can profit from reducing costs below the allowed revenue requirement.
  - An ESM reduces the portion of profits the utility can retain, thereby blunting the cost containment incentive of the MRP
  - On the other hand, the ESM reduces risk to customers that the MRP revenues are set too high, allowing the achieve excess profits
- If most utility costs are included in the MRP revenue requirement, then an ESM should be used sparingly so that the utility's cost containment incentive is strong
- If many or most costs are recovered through RACs, then over-earnings should be returned to customers

4. Reconciliation

- An MRP that reconciles costs and revenues is contrary to the definition of an MRP (i.e., annual revenue requirements are divorced from actual costs)
  - This is true for both annual reconciliation and reconciliation at the end of an MRP
- Reconciliation in MRPs blunts cost-containment incentives because it:
  - Reduces the ability of utilities to benefit from cost reductions, and
  - Shields the utility from significant revenue erosion from cost overruns

Reconciliations function similarly to cost trackers and should be avoided.

5. Rate Case Stay Out Period

- The length of time between rate cases can impact cost-control incentives
- A short stay-out period:
  - Reduces cost-containment incentives (because it lessens the ability of utilities to benefit from cost reductions in an MRP, since rates will quickly be reset to reflect the new, lower costs)
  - Reduces risks to customers by adjusting rates to reflect actual costs frequently
- If most utility costs are included in the MRP revenue requirement, then a longer stay-out period may be warranted to enhance utilities' incentives to find cost efficiencies (and profit from them before rates are reset).
  - 3 – 5 year stay-out periods are common
  - Efficiency carry-over mechanisms can be used to allow utilities to retain some cost savings into the next MRP period to strengthen their cost containment incentives
- If many or most costs are recovered through RACs, then frequent rate cases may be needed to ensure that utilities are not unduly overearning due to mismatch in revenues and declining rate base.

6. Decoupling

- Though not required as part of an MRP, decoupling could improve the current regulatory framework:
  - Revenue decoupling separates a utility's revenue from its energy sales, reducing the disincentive for utilities to promote energy efficiency and distributed generation

- Consider strengthening energy efficiency targets if decoupling is introduced

Most Important Elements of MRP

1. Ensure that allowed revenues (adjusted through an attrition relief mechanism) do not directly track utility costs
   - This provides utilities with an opportunity to benefit from finding efficiencies and reducing costs
2. Stay-out period
   - Long enough to encourage cost reductions, while balancing risks to customers
     - 3-5 year period is common
   - If broad use of RACs continue, shorter stay-out periods are warranted
     - Could still use efficiency carry-over mechanisms to encourage the utility to reduce costs
3. Earnings sharing mechanism
   - Can blunt utility cost containment incentives
   - Important to mitigating risks to customers in the case of widespread use of RACs

Evaluation Criteria for Reviewing a MRP Framework

Category	Key Criteria
Information and Resource Asymmetry	• Are the allowed revenues set based on an objective, external index, or are they based on the utility's own estimates? If the latter, information asymmetry will be high and problematic. • Is a capital plan provided in the context of a comprehensive integrated distribution plan? • Are alternatives to proposed investments appropriately considered and evaluated, including third-party provided solutions such as power-purchase agreements, non-wires alternatives?
Risk	• Does the risk associated with managing the utility remain with utility managers? Or are risks shifted to ratepayers? • Who bears the risk of cost overruns? • Who bears the risk of forecast error? • Who bears the risk of stranded costs?
Core Services	• Is the utility maintaining an acceptable level of reliability and customer service?
Policy Goals	• Is the utility achieving energy policy goals beyond business-as-usual utility investments (e.g., resilience, grid modernization, DER interconnection, EV adoption, microgrids, customer empowerment, etc.)
Administrative Burden	• Does the MRP actually reduce administrative burden after the rate plan is approved?

Appendix

Generation capacity included in MRPs

Utility	Revenues Escalation Summary
FPL	Forecast solar and battery generation installations are recovered through the Solar and Battery Base Rate Adjustment (SoBRA) mechanism. The SoBRA revenue requirement is implemented by adjusting base rates by a percentage factor equivalent to the forecast revenues.
Duke Progress NC	Forecast "MYRP Projects" covering generation, energy storage, and distribution among other areas increase the forecast revenue requirement over the MYRP. By law, the total revenue requirement growth in years 2 and 3 of the MYRP cannot exceed 4% of the revenue requirement used to set rates in the first year.
PG&E	Expenses are escalated by the IHS Market's Utility Cost Information Service. Capital-related costs are escalated by the IHS Markit's Power Planner index. Some capital categories that are not appropriately projected with an index are subject to utility forecasts, such as natural gas, nuclear, and solar capital expenses.
Ontario Power Generation	Regulated hydro and nuclear generation is subject to I-X escalation with inflation calculated via weightings of Canadian GDP and Ontario Industrial Wage indices. The hydrogeneration price cap was maintained in the most recent order, at the request of OPG.