



Multi-Year Rate Plans

Design Choices and Emerging Practice

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Key takeaways

- Multi-year rate plans (MYRPs) compensate a utility for its services for several years with revenue that, while reflective of cost pressures, does not strictly track the utility's own cost of service
- With revenue independent from its own cost, MYRPs can provide incentives to contain costs, which should translate to lower rates for customers
- Earnings sharing mechanisms (ESMs) that share surplus and/or deficit earnings between utilities and customers ensure utilities' actual ROE doesn't deviate too far from its PUC-approved target
- PIMs should be used in conjunction with MRPs to balance incentives for cost containment with motivations to pursue other goals that matter to customers and the wider public interest
- MYRPs also carry risks due to automatic rate increases, complexity of revenue adjustment mechanisms, and fewer opportunities to review utility costs and rates



MYRP Overview and Design Variables

Why MYRPs and key components

Multi-year rate plans seek to strengthen utilities' incentive for cost containment and performance, while allowing revenue certainty and flexibility for how the utility conducts its business.

Commonly implemented through a revenue cap based on a future test year, with formula adjustments to rates (“attrition relief mechanism”) between rate cases:

$$\text{Revenue Yr1} = \text{Revenue Yr0} * [(\text{Inflation}) - (\text{X-Factor}) + (\text{Z-Factor})]$$

Can also include:

- **Stretch factor** to encourage utility productivity improvement (i.e., revenue reduction)
- **Earnings sharing mechanism** to limit outsized earnings and/or utility under-collection
- **Cost trackers and riders** to account for costs outside of formula rates
- **Performance incentive mechanisms (PIMs)** – commonly “backstop” PIMs
- **Decoupling** to reconcile revenue with sales fluctuations
- **Efficiency carryover mechanism** to reinforce utility cost savings incentive

While MYRPs can benefit utilities, regulators, and ratepayers, they also introduce complexity

Revenue Adjustment Mechanisms

- Challenging to design revenue adjustment mechanisms in a way that balances customer and utility interests
- Utility revenues may exceed costs for extended periods of time
- MYRPs often result in automatic rate increases for customers
- Can end up with cost trackers and riders for investments that fall outside revenue cap

Regulatory Oversight

- MYRP design details can be complex and controversial
- Fewer rate cases mean less frequent opportunities to review costs and rates
- Rate cases, when they happen, may be more cumbersome and resource intensive
- Utilities tend to have an advantage in terms of access to information, which can impact MYRP design

Indexed attrition relief mechanisms (ARMs) tie utility revenues to external market factors instead of utility costs

Attrition Relief Mechanism

Inflation

- Often represented by a macro-economic price index such as the GDP Price Index ("GDPPI")
- Custom indexes of utility input price inflation also are sometimes used in ARM design

Productivity Factor ("X")

- Reflects the average historical multifactor productivity trend of a peer group of utilities
- Can be based on broad regional or national peer groups
- Peer group can in principle be customized to mirror special circumstances of the subject utility

Exogenous Events ("Z Factor")

- Accounts for uncontrolled exogenous events that affect a utility's costs (e.g., the "2017 Tax Cut and Jobs Act")

Stretch Factor (Consumer Dividend)

- A stretch factor can be included to share with customers the benefit of stronger cost containment incentives expected under the MYRP
- The stretch factor can be its own variable, or is sometimes incorporated with X-factor



MYRPs vary in term length, but off-ramps can provide mid-term review options to avoid unintended consequences

MYRP Term Length

- MYRPs usually range in length from **three to five years**
- The longer the time between rate reviews, the greater the opportunities for the utility to realize additional earnings by performing above expectations

Examples

- PG&E (CA) → 3 years with stair-step ARM
- ATCO Electric and ATCO Gas (Alberta) → 5 years with indexed ARM
- Xcel (MN) → 4 years with stair-step ARM
- Northern Powergrid and Northern Gas Networks (U.K.) → 8 years with indexed ARM*
- Florida Light and Power (FL) → 4 years with stair-step ARM

Off-Ramps

- Off ramps (or “re-openers”) are provisions that allow for review of a MYRP or for termination
- Common *specified* trigger for review or termination are returns falling below or above authorized levels

Examples

- FortisBC’s MYRP includes a provision for review when post-sharing returns are either 200 basis points above or below the authorized ROE

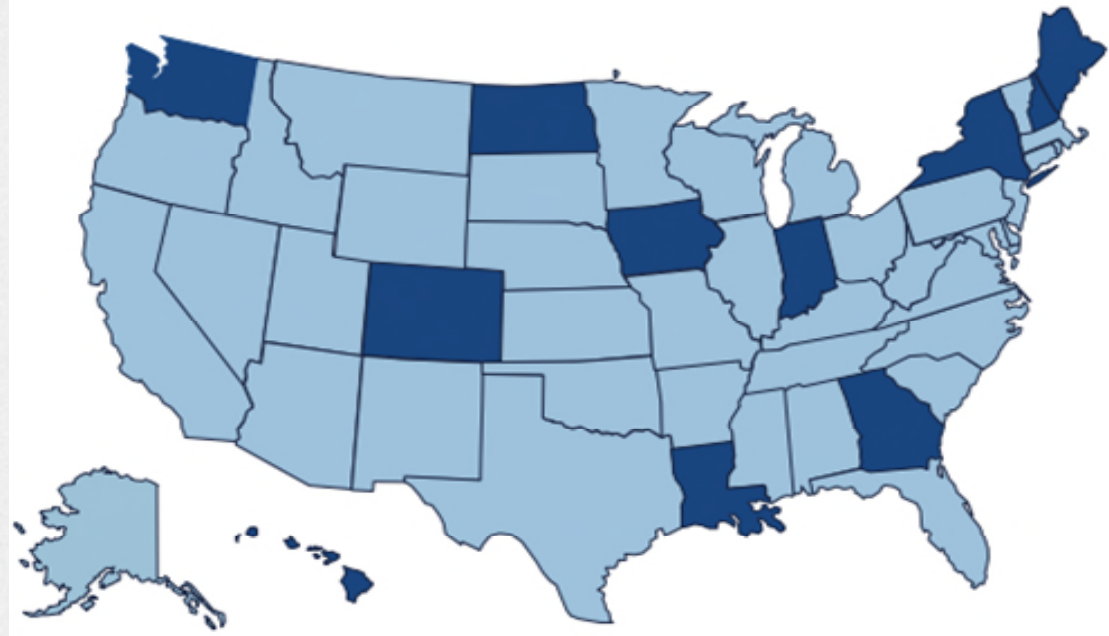
* This term will be reduced to 5 years in the next phase of RIIO.



Earnings Sharing Mechanisms share surplus/deficit earnings between utilities and their customers to mitigate upside and downside risk

- An ESM can provide both “upside” and “downside” sharing of earnings between the utility and customers.
- This results when the return on equity (ROE) deviates significantly from a PUC-approved target.
- ESMs often have “deadbands” (neutral zones around the target) in which earnings variances are not shared with customers.
- Some argue that ESMs may mitigate utility cost containment incentives.

States with Earnings Sharing Mechanisms (2015) *



Of these 11 states, 10 include asymmetrical provisions for sharing earnings in excess of the authorized ROE level (i.e., above the deadband), but not below the authorized ROE.

Efficiency Carryover Mechanisms (ECMs) allow utilities to benefit from efficiency gains throughout and across MYRP periods

Efficiency Carryover Mechanisms

ECMs maintain the utility's incentive to control costs and optimize spending throughout the MYRP period by allowing the utility to **carry forward a portion of savings** from one MYRP period into the next.

Without an ECM, a utility has a greater incentive to implement **cost-saving measures in the beginning** of an MYRP period.

Utilities also may be incentivized to **defer certain expenditures in the early years** of an MYRP period to increase the revenue levels reflected in an MYRP's test year.

ECMs also can have a **sharing component** that allows customers to benefit from savings achieved or bear a portion of cost overruns.

Efficiency gains are **calculated using benchmarks**.

Can compare a proposed revenue requirement for a new MYRP to the revenue requirement established by an expiring MYRP.

Alternatively, a benchmark can be based on statistical cost research.

Cost Trackers allow for expedited recovery of utility costs outside of formula rates

- **Commonly used for major capital costs**— provide a means to propose and review major capital investments required in interim between rate cases (e.g., grid modernization)
- **Balancing accounts** are used to record and periodically settle costs against forecasted levels (underspend returned to customers; overspend collected)
- **Cost trackers can weaken cost containment incentives of MYRP** due to diluting recovery concerns to utility
- **Incentive mechanisms** (e.g., shared savings) can be incorporated to maintain cost control incentives





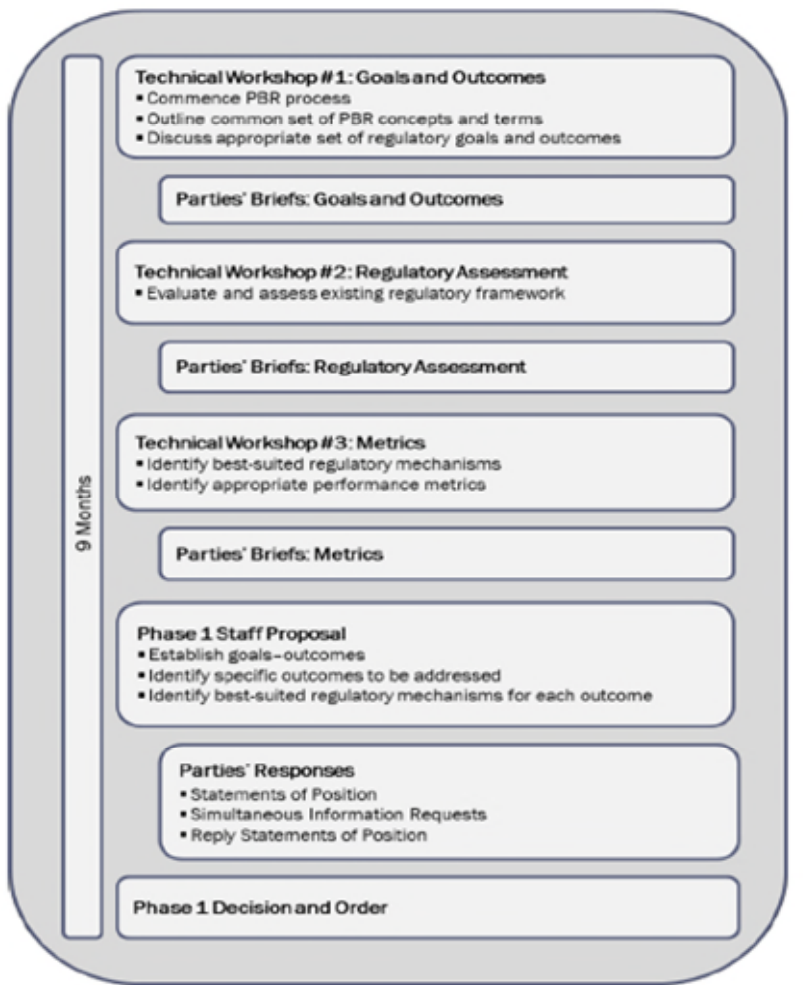
Case Study: MYRP In Development in Hawaii

Context: PBR Evolution in Hawaii

- Hawaii PUC began its PBR journey in 2008 with decoupling docket
- Three-year rate case cycle started in 2010 as one outcome of decoupling
 - Utilize future test years in rate cases
 - Each of Hawaiian Electric Companies (HECO, MECO, HELCO) are on rotating 3-year MYRP
- *Proceeding to Investigation Performance-Based Regulation* launched in April 2018
 - *Hawaii Ratepayer Protection Act (Act 5)* separately passed by legislature weeks later

Hawaii PBR reforms are developing over 2.5 years of PUC-led proceeding

Phase 1: July 2018 – May 2019



Phase 2: July 2019 – December 2020

- 10-month working group process to determine details of commission's PBR framework
- Followed by formal hearings and commission decisions in late 2020



Phase 1 produced 3 guiding principles and 12 prioritized outcomes for continued focus in PBR development

Guiding Principles

1. **A customer-centric approach**, including immediate “day 1” savings when the new regulations takes effect
2. **Administrative efficiency** to reduce regulatory burdens to the utility and stakeholders
3. **Utility financial integrity** to maintain the utility’s financial health, including access to low-cost capital

Goal	Priority Outcome	
Enhance Customer Experience	Traditional	Affordability
		Reliability
	Emergent	Interconnection Experience
		Customer Engagement
Improve Utility Performance	Traditional	Cost Control
	Emergent	DER Asset Effectiveness
		Grid Investment Efficiency
		Resilience
Advance Societal Outcomes	Traditional	Capital Formation
		Customer Equity
	Emergent	GHG Reduction
		Electrification of Transportation
		Resilience

Phase 1 Decision established a revised PBR Framework, the details of which are being developed in Phase 2

Revenue Adjustment Mechanisms		
MRP with Indexed Revenue Adjustment	5-Year Control Period with Externally-indexed Revenue Adjustment allowing interim revenue changes pursuant to an indexed formula: <i>Annual Revenue Adjustment = (Inflation) - (X-Factor) + (Z-Factor) - Customer Dividend</i>	
Earnings Sharing Mechanism (ESM)	Apply an ESM that provides both “upside” and “downside” sharing of earnings between the utility and customers when earnings fall outside a Commission-approved range	
Major Project Interim Recovery (MPIR)	Examine the MPIR adjustment mechanism to determine how it can continue to provide relief for appropriate major projects during the MRP consistent with other approved PBR mechanisms	
Revenue Decoupling and Existing Cost Trackers	Continue to utilize revenue decoupling (i.e., the Revenue Balancing Account), to true up revenues to an annual revenue target and existing cost tracking mechanisms (e.g. PPAC, ECRC, etc.) to track and recover certain approved costs	
Off-Ramps	Develop off-ramp mechanisms to provide for review of and/or relief from approved PBR mechanisms, pursuant to specified circumstances or conditions	
Performance Mechanisms		
Performance Incentive Mechanisms (PIMs)	Shared Savings Mechanisms	Scorecards and Reported Metrics



“Annual Revenue Adjustment” (ARA) is Hawaii’s version of the revenue adjustment formula (or attrition relief mechanism)

$$ARA = Inflation - X-Factor + Z-Factor - Customer Dividend$$

ARA fits within Hawaii’s broader conceptual PBR framework:

$$Utility Revenue = (Target Rev. + Performance Rev.) +/- Earnings Sharing$$

Performance Revenues to motivate key improvements:

- PIMs under consideration, including for DER Asset Effectiveness, Interconnection Management, and Customer Engagement
- In addition to existing backstop PIMs for reliability and customer service
- Party proposals have introduced additional performance measures for consideration

Parties have proposed ESM designs, all introducing “symmetrical” risk sharing

Proposals are being vetted and refined during Phase 2, with other PBR details

Allowed ROE (9.5%)

Current ESM	No sharing					25/75* (100 bp)	50/50 (200 bp)	90/10				
Proposal 1	20/80			0/100		0/100	50/50	80/20	95/5			
Proposal 2	100/0 (below 400 bp)	75/25 (400 bp)	50/50 (300 bp)	25/75 (200 bp)	0/100 (100 bp)	0/100 (100 bp)	25/75 (200 bp)	50/50 (300 bp)	75/25 (400 bp)	100/0 (above 400 bp)		
Proposal 3	100/0 (below 300 bp)		50/50 (300 bp)		0/100 (150 bp)		0/100 (150 bp)		50/50 (300 bp)		100/0 (above 300 bp)	
Proposal 4	90/10	50/50 (200 bp from CRR)		25/75 (100 bp from CRR)	0/100 (Depends on CRR)		0/100 (Depends on CRR)		25/75 (100 bp)	50/50 (200 bp)		90/10 (over deadband + 300 bp)

Credit rating risk (CRR)

Customer share of risk (pay for utility under earnings)
 Deadband
 Customer share of reward (paid for utility over earnings)



Key issues being evaluated in Hawaii MYRP design

- What are the appropriate values for ARA factors—esp. X-factor and customer dividend?
- What costs and revenues are included in ARA vs. recovered elsewhere (e.g., MPIR, cost trackers)?
- How to fairly and accurately set initial target revenues?
- Under what conditions do off-ramps get triggered? By who?
- What will happen at end of 5-year term?



Thank You

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Helpful references

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