Sorting Through Options for a new Montana Resource Planning/Decision Practice

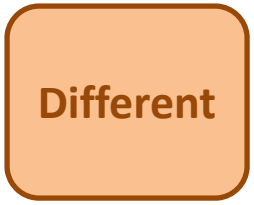
The Framework

For a given aspect of the practice

What are ways we could do less with respect to this aspect of our practice? This is a way to ask whether our practice includes activities that "cost " more than their value.

What is our practice now?

What are ways we could do more with respect to this aspect of our practice? This does not necessarily mean more regulation.



What are ways we could think about this aspect of our practice differently?

Note: Options do not always neatly fit into these categories and our sorting is intended to prompt thinking rather than provide answers.

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Participation

Less

- Reference to broader public involvement dropped
- Only guideline is to encourage consultation with stakeholders

Status Quo

- Old: general guideline regarding participation by stakeholders, non-utility experts, and internal utility experts; practice is a utility-supported working group, agendas published with plan
- New: encourages a utility advisory group and consideration of involving wider group/public; practice is an advisory committee; materials available with the plan
- Provide customers with information on mix of resources with associated emissions and impacts – not being followed?

More

- Utilities maintain specific web location for current information about resource planning, decisions and outcomes; this web site announces all meetings and agendas, and provides materials and notes post-meeting
- Meetings are open to anyone

Different

- Experimentation with customer engagement is encouraged and funded
  - Geographic community-specific, partnering with existing organizations?
  - By community of interest/affiliation (demographic, business sector, type of household, etc.)

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Materials/Documentation

Less

- From plan to plan, utility (and stakeholder participants) decide best presentation of planning information and information in support of a specific resource decision

Status Quo

- Thorough to fully demonstrate prudence, justify decisions
  - o Cost estimates for all resource alternatives
  - o Resource attributes considered and evaluation methodology
  - o Risk management applied
  - o Due diligence on winning bidders
  - o Timing and impact of management judgment
  - o Recommendations of advisory committee?
- Capable of being reasonably understood by Commission and others

More

- Combine old and new rules regarding documentation
- Develop specific lists of required information and its presentation for specific planning and decision-making items

Different

- Key documentation to the decision(s) to be made at the time, whether planning or specific resource
- Focus documentation requirements on the questions that the various stakeholders must or would like to answer to help consider the decision(s)
  - o Clear questions
  - o Some specified; additions or subtractions depending on context
- Present information in relation to the questions addressed
- Encourage use of web as information presentation tool

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Frequency

Less

- Every three years, with possible year extension upon showing of little environmental change and/or no significant decisions
- Timing applies from date of Commission action on last plan

Status Quo

- Every two years, old and new rules
- New rules: three-year action plan as part of energy cost recovery and pre-approval applications

More

- Annual updates
- Reports on execution of plans
- Filing whenever "significant" assumption changes, e.g. signpost filings

Different

- Look at certain historical and near-term forecast information annually; such as:
  - o Load
  - o Resource operations
  - o Power and fuel market prices and availability
  - o Other market conditions and developments
  - o Transmission availability
- Decide at that time what questions require analysis to support decision-making

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Review Process and Meaning

Less

- Letter from Commission acknowledges receipt of the plan
- No interaction regarding the plan, such as oral or written comments or conversation

Status Quo

- "Old": meeting to receive comment; two stakeholders must review and provide comment
- "New": drafts are shared only with ETAC; Commission reviews and comments; opportunity for public comment

More

- Utility makes draft plans available to stakeholders and incorporates and/or responds to comments in final plans
- Review process provides for data requests and responses
- Commission acknowledges plans; can accept, reject, modify, or send back for further work
- Expectations set regarding period within which Commission review will occur

Different

- One or more open conversations between the Commission and utility occur during preparation and execution of plans or entire planning cycle
- Conversations always include the decisions being contemplated, the questions that could be relevant to those decisions and the observations providing insight
- Commission can initiate (or respond to petition for) ad hoc mini-plan on potential new decisions or significant new questions that could relate to identified decisions

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Action Plan Content

Less

- No Action Plan included with IRP
- Implementation considered only in related filings, such as energy cost trackers, pre-approval applications, or DSM program cost recovery

Status Quo

- "Old": how the plan will be implemented over the near-term under various load and resource scenarios
- "New": generalized action plan included with biennial procurement plan; periodic cost tracking filings contain rolling three-year action plans that include discussion of T&D functions and services

More

- Action plans signal intent to use competitive bidding, including timing and size and type of resources
- Action Plans list any specific resource actions planned, whether supply-side, demand-side or both
- Utilities file action plan updates annually to report on
  - o Resource system operations
  - o Resource-related actions recently taken
  - o Resource-related actions expected in next two years and documentation in place for those, including RFPs

Different

- No Action Plan per se; rather, utility notifies stakeholders (perhaps through website) of near-term plans to make resource-related decisions using the current IRP
- Action Plans contain decision making frameworks , similar to those used for bid evaluation in RFPs, for anticipated decisions

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Planning Horizon

Less

- Action Plan duration; i.e. through the implementation and completion of decision-making processes of currently contemplated resource actions (likely no more than 2-3 years)
- "Hard" 10 years

Status Quo

- "Old" rules do not specify; MDU practice is __ years
- "New" rules use planning horizon concept, intended to span at least ten years or longer if existing resources or proposed resources exceed that term

More

- 20-40 years minimum

Different

- Plans consider a 20-year horizon but analyses are done in two ten-year pieces so that assumptions applicable to later years (such as the availability of technology) do not affect earlier years' results

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Loads and Customers

Less

- "Old" version for all utilities

Status Quo

- "Old": forecast documented and reasonably understandable; no forecast risk transferred to ratepayers
- "New": Robust; base, intermediate, peak; load shapes; price elasticity

More

- Range of forecast periods required; e.g., 1, 5 and 10 year
- Range of forecast looks required; e.g. by class or sub-class, by geographic area, by demographic grouping; by type of application
- Assessment of deviations between past forecasts and actual use that occurred

Different

- Forecasts are done for subsections of the services territory (such as individual cities/towns, rural areas), in addition to the entire service territory
- Forecasting process explicitly considers turnover in the stock of buildings, equipment and appliances that result in energy use, both number and rates of additions and numbers and rates of retirements
- Forecasting process more explicitly considers demographic information and effect of demographic changes on energy use

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Supply Side Resources

Less

- Allow utilities to consider only a list of self-identified "feasible" resources
- Set explicit screening feasibility standards

Status Quo

- "Old": range of cost-effective ways for meeting needs
- "New": evaluate full range of cost-effective options, including DG, wholesale electricity market products
- Generally, selection practice is a subset of possible resources, chosen according to explicit and implicit judgments of feasibility
- Quantitative evaluation practice is modeled NPVRR, generally done in portfolios

More

- Use a Request for Interest (or similar tool) to scan for feasible SSRs on some regular basis
- Critical thinking on how the current SSRs are operating and have been operating
- Incorporate narrative and qualitative (scaled) evaluation practices in equal priority with modeling
- Make clear the material, personnel, and financial supports required for the various SSRs examined

Different

- Develop new quantitative and qualitative approaches to analyzing cost and value of small and/or unusual resources, such as various types of distributed generation
- Explicitly consider transmission interconnection with other generation or markets as a supply-side resource

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Transmission

Less

- Plans consider transmission only in context of applying existing FERC transmission rates to interchange transactions modeled to lay-off surplus, fill deficits and acquire economy supply

Status Quo

- "Old": MDU's practice includes providing substantial information about MISO operations and requirements
- "New": transmission functions and services included in rolling 3-year actions plans included with energy cost recovery filings
- In practice, resource plans include little transmission information

More

- Include in practice looking at use of existing transmission resources (owned and available to)
- Include consideration of new transmission links as means of reaching additional wholesale sellers/generators
- Align with Order 1000 requirements (this may be mandatory)

Different

- Separate planning process for transmission, with its own frequency and planning horizon

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Distribution

Less

- No requirement to address or non-contested case process for interacting regarding distribution investments except in context of rate case

Status Quo

- "Old": no requirements
- "New:" distribution functions and services mentioned in description of 3-year rolling action plan requirement for energy cost recovery filings
- Separate tracking and reporting of the distribution system infrastructure project

More

- Include review of capabilities and operating characteristics of current distribution facilities
- Consider investments needed to maintain and/or improve these, including local measures of reliability (subsections of the service territory)

Different

- Consider investments that would expand the capability of the distribution system, such as its ability to handle two-way power flow, electric vehicle charging, various pricing options for demand response programs, or various equipment management programs

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Risk And Uncertainty

Less

- Consider risk only within an upper and lower boundary around an expected value

Status Quo

- "Old"; minimize costs of risks; manage consequences of uncertainty and risk; specific options to consider
- "New": mitigate risks; consider industry practices; various techniques and management practices recommended
- Practice includes considerable focus on fuel/wholesale power price risk and a range of forecast linear load growths

More

- Assess uncertainties and risk in terms of warning, frequency, duration and any other relevant parameter
- Assess individual types of resources in terms of how exposed they are to various risks and how easy it would be and long it would take to adjust to changed circumstances?
- Explicitly look at risk differences attributed to owned versus contracted for generating resources

Different

- For various natural or man-made disasters (cyber attack, earthquake, fire, etc.), assess the vulnerability of the overall portfolio and individual resources and identify actions that could shorten a loss of service
- Identify circumstances that could lead to the economic obsolescence of a given type of resource

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Role Of Modeling And Modeling Requirements

Less

- Engage in detailed modeling only for a specific resource decision
- In planning process, focus model work on developing the structure and assumptions (needed and sources) suitable for resource-specific modeling

Status Quo

- "Old": weigh, rank, size and evaluate resources according to attributes, including direct and external cost, acquisition cost, overall efficiency
- "New": use modeling for needs assessment, developing methods to weigh attributes
- Evaluate portfolio performance and optimize mix
- Practice is considerable modeling and voluminous output

More

- Use modeling to establish future retail kW and kWh price expectations, including market price uncertainty over full range of scales
- Require more clarity and specificity around the decisions the modeling will support, question(s) the modeling will shed light on and description of how the modeling will do that illumination
- Require narrative of model relationships to create shared understanding of the story about how things work and what is happening played out in the modeling
- Ask planning participants to hypothesize modeling results, focusing later efforts on understanding any emergent surprises

Different

- Place emphasis on meaning made of modeling results and work to obtain broad range of views on that meaning
- Develop scenarios that require one to consider how circumstances judged extremely unlikely (such as 50% penetration of on-site storage by 2030) could occur - use in evaluating performance of models and for contingency planning

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Services

Less

- Abandon concept of looking at rate design or cost allocations
- Exclude consideration of wholesale services or transmission
- Reduce utility role in demand-side management programs, such as by use of third party administrator for some or all measures/programs

Status Quo

- Bulk of the planning and decision making practice relates to resources for providing electric energy (peak and average)
- Some acknowledgement of certain wholesale and retail level services such as transmission, ancillary services, net metering
- Energy efficiency incentives are designed as programs, generally for one-time interventions such as incentives
- Largely ignored requirements to look at rate design and cost allocation as part of planning

More

- Enforce looking at rate design and cost allocation in the planning process
- Specifically include currently offered services in the planning practice:
  - What is the service (including current and future demand for it)
  - What resources support it now and will be needed to support it in the future

Different

- For currently offered services, also consider options that could enhance that service, such as consumer energy management information or information about the consequences of energy use (such as emissions saved by participation in a green power program)
- For currently offered services, also consider options that could serve as alternatives to that service, such as a demand-metered service for residential customers or various demand-response based pricing option like time-of-day or critical peak rates

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Demand Side Resources

Less

- Limit consideration to least-cost/lowest cost/total risk conservation only

Status Quo

- A key part of both old and new rules and practice by the utilities
- Reasonably achievable DSRs considered as reductions to the load forecast
- Programs measured against TRC avoided cost/.9 – but in practice all projects are 1.0 and above except trial balloons that are discontinued

More

- Consider behavioral-based conservation and energy efficiency, in addition to measures; e.g., information- and control-system supported habit changes

Different

- Consider energy efficiency measure programs and demand-response programs in a separate process
- Use a separate energy efficiency collaborative to review plans, look at evaluations, identify and discuss issues and concerns
- Use regional screening results to identify measures eligible for programs and utility avoided cost as upper limit of incentives for measures
- Consider usefulness and scope of third-party administration of programs

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Externalities

Less

- Only level of current environmental regulation

Status Quo

- "Old": May include; goal of minimizing environmental and external cost; both quantifiable and not; risk of future regulation
- "New": promote environmental responsibility; provide customers with information on impacts and emissions
- Recently, wind resources have been cost comparable to conventional thermal resources without consideration of externalities; practice is to discuss potential CO2 action but to no significant effect

More

- Add water quality and quantity impacts as an externality
- Express applicable environmental externalities in terms of health impacts
- Consider costs such as litigation in connection with potential siting and condemnation activity

Different

- Consider employment and health consequence in resource decisions

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Procurement Guidance

Less

- Clear guidelines on when competitive bidding is not required, such as size or duration of resource choice or commitment to price and performance criteria
- Establish a list of questions expected to be answered/addressed through competitive bidding; allow different means of achieving those
- No further review so long as resource meets

Status Quo

- "Old": competitive solicitation provides valuable information on SSR and DSR; test the market before acquiring new resources; all-source favored
- "New": use competitive procurement whenever possible; follow industry standard practices; anticipate changing practices and stay flexible; explore a wide variety of resources; analyze risks and benefits of rate base

More

- Competitive bidding required unless exception applies or waiver granted
  - Exceptions commonly based on size and duration of resource acquisition
  - Waivers commonly available for short-term opportunities (e.g. resource owner's bankruptcy) or tax incentive constraints (e.g., expiration of PTC)
- Address modes of procurement in resource planning and action plans

Different

- DSR bidding separate from supply-side and not mandatory even if supply-side is required
- Targeted (rather than all source) bidding to eliminate need to find evaluation criteria capable of reducing all types of resources to a common basis such as $/MWh

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RFP Review and Content

Less

- Not applicable

Status Quo

- No provision for review
- Commission may hire outside consultant to help with planning and procurement processes
- Content:
  - Resources, products and services needed
  - Screening criteria and bid evaluation methodology with rating system for price and non-price factors

More

- Provide for circulation of and oral/written comments on draft RFPs
- Require one or more bidders conferences
- Require filing of draft RFP with the Commission, opportunity for comment/hearing, Commission acknowledgement

Different

- Not applicable

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Independent Monitor/Evaluator

Less

- Not applicable

Status Quo

- No requirement
- NWE uses an outside consultant to help it with its RFP processes

More

- IE brought on before preparation of draft RFP
- IE hired by
  - o Utility
  - o Commission
- IE paid for by
  - o Utility and this is reimbursed
  - o Bidders fees
- IE manages communications between bidders and utility and keeps Commission informed of developments in the process
- IE participates in screening
- IE independently scores or audits scoring of screened bids
- IE present during negotiations

Different

- IE used only if one or more bidders files a request with the Commission (in which case, cost paid through bidding fees)
- IE used only if utility has a self-build or benchmark resource in the bid or invites build-transfers
- IE evaluates and runs the utility's model
- IE evaluates the RFP process according to a specific list of criteria

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Benchmarks, Self-bids and Build-Transfers

Less

- Not applicable

Status Quo

- Rules address only affiliate bids

More

- Scoring may not favor ownership by awarding points for build-transfer or removing them for externalities of purchases, such as leverage adjustments
- Benchmark or self-build projects must "compete" in the RFP
  - Separation of benchmark team and RFP team
  - Filing or securing of benchmark bid before other bids due
  - Benchmark price considered binding as to costs covered

Different

- EPC bid on development of utility-owned sites as part of RFP
- Utility-owned sites made available for purchase and use by bidders as part of their proposals

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Results Review

Less

- Not applicable

Status Quo

- No provision

More

- IE or utility stakeholder group reviews the RFP process and files its comments on this with the Commission
- Commission reviews and acknowledges the short list

Different

- Commission chooses the short list

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