



PO BOX 201706
Helena, MT 59620-1706
(406) 444-3064
FAX (406) 444-3036

Energy and Telecommunications Interim Committee

62nd Montana Legislature

SENATE MEMBERS

ALAN OLSON--Chair
VERDELL JACKSON
JIM KEANE
CLIFF LARSEN

HOUSE MEMBERS

TONY BELCOURT--Vice Chair
ROBYN DRISCOLL
HARRY KLOCK
AUSTIN KNUDSEN

COMMITTEE STAFF

SONJA NOWAKOWSKI, Lead Staff
TODD EVERTS, Staff Attorney
DAWN FIELD, Secretary

August 24, 2012

TO: ETIC members

FR: ETIC staff

RE: Public Service Commission IRP Workshop

ETIC members,

The Montana Public Service Commission recently began the process of reviewing the Montana Public Service Commission's practice for resource planning and procurement.

PSC Chairman Travis Kavulla will update the Committee during the ETIC's September 7 meeting. He also asked that these documents be provided to ETIC members.

If you have questions or would like additional information about the PSC workshops held on June 27-28 and August 21, let me know.

Sonja Nowakowski

Research Analyst
Montana Legislative Services Division
Room 171C, State Capitol
PO Box 201704
Helena, MT 59620-1704
Phone: (406) 444-3078
Fax: (406) 444-3971
Email: snowakowski@mt.gov

From: [Kavulla, Travis](#)
To: [Nowakowski, Sonja](#)
Subject: FW: MPSC Planning & Procurement Rules Workshop Materials
Date: Monday, August 13, 2012 4:29:58 PM
Attachments: [Workshop Memorandum.pdf](#)
[Recommendations.pdf](#)
[Framework Slides.pdf](#)

Sonja –

I think you've already received these documents, but if you have not, I recall that Senator Keane expressed interest in any PSC rulemakings. This is not a rulemaking at the moment, but through our workshop process it may lead the PSC to write and propose a formal rulemaking on the following subjects:

- Resource Planning Process & Content
- Procurement Process & Conduct

The draft "Recommendations" are only meant to serve as a suggestion (largely modeled after Utah's planning & procurement rules, while re-emphasizing our own rules, which generally have worked well) for respondents at next Tuesday's workshop to address.

The emphasis of any rulemaking would be squarely on ensuring consumer protection through a well-vetted planning and competitive procurement process.

If you would forward the attachments and my email (and the below notice) to members of ETIC, I would be grateful, and I'm happy to field any questions or listen to any comments they have. I can also address this at the upcoming ETIC meeting on Sept. 7.

Travis Kavulla

From: Turkowski, Donna
Sent: Monday, August 13, 2012 4:13 PM
To: 'johnalke@hksalaw.com'; Blend, Jeff; 'Al.Brogan@northwestern.com'; 'susan@cgpclaw.com'; Cartwright, Paul; 'tamie.aberle@mdu.com'; 'megan@rnp.org'; 'LCasey@NWCouncil.org'; 'pat.corcoran@northwestern.com'; 'david.fine@northwestern.com'; 'john.fitzpatrick@northwestern.com'; 'jeff@rnp.org'; 'john.hines@northwestern.com'; 'bmh@bmh3.com'; 'ross.keogh@gmail.com'; 'david.kirkland@opower.com'; 'c.magraw@bresnan.net'; 'dmaneta@montanarenewables.org'; 'pamela@gracefulsystems.com'; 'gmueller@montana.com'; 'darcy.neigum@mdu.com'; 'tnelson@hollandhart.com'; 'sarah.norcott@northwestern.com'; Nordell, Larry; Nowakowski, Sonja; 'pascoeenergy@aol.com'; 'tom.power@mso.umt.edu'; 'diego@nwenergy.org'; 'bob.rowe@northwestern.com'; 'kentoole@mhrn.org'; 'kwiens@meic.org'; 'brian.giggee@mdu.com'; 'mdhoffman@pplweb.com'; 'VJamison@gaelectric.ie'; 'gcopeland@natureener.net'; 'mbaird@invenergyllc.com'; 'Brandon@whitewatereng.com'; 'toma@whitewatereng.com'; 'b.mcintyre@bresnan.net'; 'ben.ellis@sagebrushenergy.net'; 'pbeltrone@exergydevelopment.com'; 'Chase, Nedra G'; 'bensinger@hydrodynamics.biz'; 'motu100@aol.com'; 'lauckjr@hotmail.com'; 'jcarkulis@exergydevelopment.com'; 'joe.schwartzberger@northwestern.com'; 'john@jwwa.com'; 'muda@mthelena.com'; 'michelle.uberuaga@gmail.com'; 'roger@hydrodynamics.biz'; Nelson, Robert (MCC)

Cc: Brown, Jason (PSC)
Subject: MPSC Planning & Procurement Rules Workshop Materials

Dear Workshop Participants:

On August 21, 2012, at 9 a.m., the Montana Public Service Commission will convene a public workshop to discuss potential revisions to Montana's planning and procurement rules for electric utilities. The topics covered in the meeting include the resource procurement plan's process and content requirements, the process of soliciting and acquiring electricity resource, including contract purchases, owned generating resources, and contracting resources such as qualifying facilities, and the tools available to the public for following and evaluating the planning and procurement processes.

The day will include a panel to discuss various elements of the rules mentioned above, as well as opportunities for workshop attendees to comment on materials submitted by the MPSC's consultants, Pamela Morgan and Marty Howard, which are attached to this email. Please consult the workshop memorandum for more information about the workshop and these materials, which you can also find posted on the PSC's website at <http://psc.mt.gov> under Docket No. N2012.5.56 (select "Search Documents" under the "Electronic Documents" tab).

If you have any questions, please contact Jason Brown at jbrown4@mt.gov or (406) 444-6187.

Donna Turkowski
Regulatory Division
Montana Public Service Commission
PO Box 202601
Helena MT 59620-2601
(406) 444-6180

_____ Information from ESET NOD32 Antivirus, version of virus signature database 7382 (20120813) _____

The message was checked by ESET NOD32 Antivirus.

<http://www.eset.com>

_____ Information from ESET NOD32 Antivirus, version of virus signature database 7382 (20120813) _____

The message was checked by ESET NOD32 Antivirus.

DRAFT

GRACEFUL SYSTEMS LLC MEMORANDUM

TO: STAKEHOLDERS
FROM: PAMELA MORGAN
MARTY HOWARD
SUBJECT: MONTANA RESOURCE PLANNING AND PROCUREMENT OPTIONS WORKSHOP
DATE:

Hello everyone! On August 21, 2012, we are scheduled to meet again in this process of reviewing the Montana Public Service Commission's practice for resource planning and procurement. As we indicated during our last workshop on June 27-28, this workshop will focus on options for this practice.

Two documents are attached for your advance review. The first is an outline showing our initial thoughts on changes to the resource Planning and Decision-Making Practice (PDP) currently used in Montana. As stated up front in the memo, we see much in the current PDP that does not require change. Where we do see opportunities to change the practice, we have organized those ideas into four categories:

- Planning Content
- Planning Process
- Procurement Process
- Tools

This document will guide the next workshop. Working category by category, Marty and I will briefly describe our initial thoughts on practice changes, and answer questions as those may exist. Then, a panel comprising [indicate who] will begin the discussion, each individually providing overall thoughts and then responding to each other. We will then engage the broader group in discussion of the proposals.

As we worked on these initial thoughts, we sorted through the information we had gained from looking at other states, as well as our own experience, using a particular format. The presentation being sent with this email reflects what we did and we are sharing it with you all to help you think through both your reaction to our proposals and some you might want to add. The presentation uses the following format:



Sta
.



Diffe

What are ways we could do less of this aspect of our practice?

What is our practice now?

What are ways we could do more of this aspect of our practice?

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

We are looking forward to seeing you all on the 21st.

DRAFT

Draft Proposal
Montana Planning and Decision-Making Practice (DPD)

Overview

Much that is in Montana’s current planning and decision-making practice around utility resources works well for the stakeholders and does not require change.¹

Our suggestions for improving the practice fall into four categories:

- Planning Content
- Planning Process
- Procurement Process
- Tools

Below are conceptual statements of our suggestions to support the planned workshop discussion. These are not intended to be in the formal language of “rules”.

Planning Content

- **Load:** Load forecast expanded to consider projected use of all current and future planned utility services (e.g., energy, transmission, net metering, pricing options), customer demographics, and key assumptions about the state/regional/national context within which customers will be making decisions to use utility services. Plans include an assessment of past forecasted loads compared with actual loads to enable learning about the characteristics (nature, frequency, size, possible causes, etc.) of variations.
- **Services:** Current requirements to consider rate design and cost allocation and to plan for demand-side resources (DSR) are core of broader assessment of current and future planned utility services (including transmission, ancillary services, net metering, and retail services such as pricing options). Plans include a ten year forecast of retail prices, along with the assumptions used to create the forecast.
- **T&D:** Transmission and distribution current capabilities and operating characteristics (including degree of integration in operations) are explicitly considered along with required and optional investments to maintain or enhance those as needed to support utility services. Ancillary services provided via transmission assets are expressly contemplated.
- **Resources:** The Plan explicitly identifies the resources needed to support the services anticipated by the plan. For Supply-Side Resources (SSR), this includes information on possible resource types and locations using Requests for Interest/Information or other means, direct costs (generic examples) of those resources (including currently applicable or relatively certain new environmental requirements), and related costs (e.g. financial, material and human resource needs; power and fuel-related infrastructure, water requirements). Whenever

¹ In our final report, we may suggest wording changes to the current rules that clarify or align the rules with the accepted practice. We may also suggest planning steps within the major content categories with which the stakeholders might experiment as they continue to improve the practice.

possible, monetary cost information is available to utilities and stakeholders both as year-by-year nominal amounts over the expected lives (from ground-breaking to decommissioning) of the resources, and as net present values. SSR explicitly include transmission investment to interconnect with new or existing individual or market electricity generation resources.

- **Modeling:** Stakeholders (including utility personnel not directly involved with the model) develop a shared understanding, as non-technical as possible, of the relationships in the model and the meaning that its output will have for the questions being asked. Using this understanding, stakeholders make and record hypotheses about outcomes before running the model and use the difference between these hypotheses and observed outcomes to: (1) confirm assumptions, especially regarding cause-and-effect relationships among modeled variables; (2) explore possible errors in assumptions and cause-and-effect beliefs; and (3) examine, test and improve model mechanics.
- **Action Plan:** Specific requirements for the Action Plan content, including planned RFPs and decision-making frameworks for planned or possible resource decisions outside of RFPs, proposed rate design/cost allocation actions, and new or changed services (including DSR programs).
- **Risk:** The risk analysis includes: characteristics of various resource options, including operational flexibility, variability, and duration (economic obsolescence or continued operation beyond expected life); exit options should a sudden and dramatic change in circumstances occur; end of life value in either land or materials; environmental regulatory costs; and external value (such as overall utility financial strength and direct Commission operational oversight) or liability (such as debt leverage effects or unknown ownership risks) associated with the question of resource ownership or contractual obligation status. Resource operational variability should be assessed using such actual operating data, by type of plant and plant ownership/operating status (i.e., owned and operated by utility or IPP; owned by utility or IPP but operated under contract).

Planning Process

- Interaction between the Commission and the utility and stakeholders happens at several key points during preparation and implementation of the plan, including:
 - Preparation for planning:
 - Decisions and questions that will be the focus of the next planning effort
 - Information access
 - Participation and outreach
 - Schedule, including points of interaction with the Commission
 - Services assessment (demand-side resources, rate design and cost allocation, and other)
 - Existing resource assessment, including generation, transmission and distribution
 - Service use (including load) projections and resulting resource/investment needs
 - Resource/investment options assessment
 - Action Plan

- Utility planning meetings are open to any interested person, with suitable protection around the sharing of confidential information.
- Utilities file plans every three years. For each three-year cycle (beginning with the preparation for planning), the Commission will open a non-contested case docket under which participants can track comments, questions and commitments that emerge from interactions during the processes and electronically access materials. Plans contain, at a minimum, a 20-year look (ten actual back, ten forecasted forward) at:
 - Load information, including system- and customer- class based average energy, peak, peak price differentials, load duration, load shapes
 - Retail price information, overall average and by class, along with assumptions used to create the forecast
 - SSR information, including operating data for owned or contracted resources, and fuel and power market quantities and prices
 - Transmission information, including price and availability of owned transmission and of transmission used or reachable by the utility, and current regional transmission plans and regional transmission tariffs and operating practices, for both existing and anticipated new facilities
 - Distribution information, including system characteristics, and operational end use information, such as system capacity factor and reliability statistics
- At least once a year (separately, or as part of another PDP interaction), the Commission, utilities, and stakeholders meet to discuss current system operations, power and fuel markets, and other events or trends in the economic, political, and social environments that may affect the provision, use or regulation of utility services. The update includes short-term forecasts for loads, fuel and power markets, and reflections on possible changes to the most recent long-term forecasts given recent events.

Procurement Process

- **Competitive bidding guidance:** Explicit parameters express the Commission’s expectations for existing statutory requirement to use open, fair and competitive procurement processes whenever possible.
 - Utilities may acquire wholesale products in liquid markets without competitive bidding.
 - Utilities may acquire wholesale products in illiquid markets without competitive bidding if other reasonable means exist to acquire market information on availability of choices and reasonableness of prices and contractual terms.
 - Utilities are expected to use competitive bidding if the resource types sought include the acquisition of a generating plant or the output from a specific generating plant or supplier for a period 10 or more years, regardless of whether the resource will be acquired through construction of a resource for the utility (self-build), transfer of a resource to the utility, or a tolling or output contract based on a specific resource, subject to specific exceptions:
 - The utility’s Action Plan proposes and supports an alternate acquisition strategy

- The utility does not plan to seek pre-approval of the resource acquisition, or
 - An emergency or time-limited opportunity acquisition of unique value exists. The utility may seek Commission comment on its intent to use this exception by filing an application, given expedited processing as contemplated by the pre-approval statute, that identifies the resource, explains why peculiarities in this particular instance raise other objectives to greater importance than the statutory preference for competitive bidding, and details the criteria and information the utility proposes to use to make the acquisition decision.
- **RFP Notice:** In addition to the Action Plan identification of dates and scopes of planned RFPs, utilities will post (see Tools section below) and file with the Commission a notice of intent to issue an RFP at least 30 days in advance of the availability of a draft RFP, indicating the types and sizes of resources sought and any other information, such as requested availability date or location, likely to be of use to potential bidders in determining their interest.
- **Independent Monitor:** The Commission will retain an Independent Monitor for RFPs that seek resources of greater than 10 years in duration. To allow time for IM selection prior to the availability of a draft RFP, for RFPs that meet this criterion, notice is due at least 90 days in advance. The Commission on its own motion or in response to the utility's request may retain an IM for RFPs outside of this parameter. The IM's duties will include:
 - Review and comment on the draft RFP and other materials
 - Oversee the RFP process to ensure it is conducted fairly and properly
 - Request confidential treatment of bidder and bid information that qualifies for protection as a trade secret under Montana law
 - Provide the Commission with updates on the process as appropriate
 - Check the reasonableness of the utility's scoring of bids and selection of the short-list
 - If the RFP involves utility ownership options (defined below), the IM will:
 - Receive the utility's self-build proposal on or before other bids are due
 - Independently score the self-build bid and any build-transfers and a sample of other bids
 - Compare its scores with the utility's and attempt to resolve any differences
 - Prepare for the Commission and make available to stakeholders a closing report concerning the process, the reasonableness of the scoring and selection of the short list, and the IM's review of any utility ownership options
- **Draft and Final RFPs:** Utilities will post and file with the Commission the draft RFP, qualification criteria for bidding and the bid evaluation methodology. Within 30 days of that filing, the Commission will convene a meeting at which stakeholders may ask questions and provide the utility comments on the RFP. If the RFP involves an IM, the IM will provide comments on the RFP at the meeting. The final RFP will include a communication indicating how the utility has answered the questions or addressed the comments. Utilities may also engage in an informal RFP review process with potential bidders and stakeholders.
- **"Self-Build":** Utility ownership options include either of the following:

- A generating plant that a third party proposes to construct on a site under its control and transfer ownership to the utility after completion
- A generating plant the utility proposes to construct on a site under its control. Utilities may bid the engineering, procurement and construction (EPC) work as part of the RFP or, if doing this outside of the RFP, must have detailed cost estimates to bid the resource as a “self-build” proposal within the RRP
- **QF/PURPA Issues:**
 - Utilities will file avoided cost updates based on their plans as currently happens. To the extent these avoided costs incorporate a fuel price forecast from a published source, utilities will update the avoided costs as frequently as necessary upon publication of a new forecast by that source.
 - Upon completion of an RFP, utilities will file a price formula, reflecting the results of the RFP, that will be available for QF projects between 2 MW and 10 MW for a period of no longer than twelve months following filing. If this formula contains a fuel price forecast that is updated by its source before the end of the twelve months, the utility will update the formula for the most recent fuel price forecast.
 - QF projects sized 10 MW and larger must participate in competitive bidding if an RFP has been initiated and, if no RFP is pending, will negotiate with the utility for contracts.

Tools

IRP was created before the Internet and, while Montana’s “new” planning and procurement rules were crafted after the rise of the web, the decade or so since then has seen a vast expansion in the capability and use of the web for communication. While many utilities and Commissions still use the web solely as an electronic repository of static paper documents, a better practice is emerging that incorporates the interactive, question-driven presentation of information and uses the web for virtual conversation. Some utilities employ these more interactive approaches for non-regulatory information.

We suggest that Montana begin to more aggressively bring the web into its planning and decision-making practice. It makes most sense to us that the utility create and maintain (likely within its existing website) the primary PDP website (its costs of doing so should be recoverable in its revenue requirement). The utility should assemble an advisory committee for this effort that includes people with expertise in presenting visual information and people that can help assess the effectiveness of possible information representations, as well as interested stakeholders.

The implementation should include links to the Commission’s website as appropriate; for example, to the non-contested case dockets opened for each planning cycle, and related contested case dockets (such as a pre-approval application). Other links could facilitate ready access to additional sources of relevant information or insight. Initially, the PDP website may simply present information about activity in the PDP cycle (meeting and RFP notices, meeting materials, plans, draft and final RFPs etc.) and a set of contextual information identified by stakeholders (such as the utility’s historical load and resource data). The Internet medium allows presentation in visual, dynamic formats. Contextual information should include the historical facts about the generating, transmission and distribution resources that are

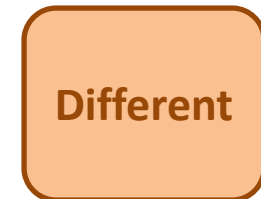
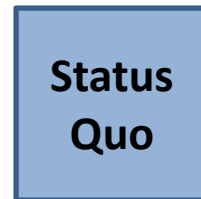
the basis of an annual interaction with the Commission and stakeholders (see Planning Process section). Over time, the site should include a forum through which stakeholders could communicate and a place to post items of interest (such as regional or national news relevant to utilities and energy resources). It might also feature ways in which non-expert stakeholders could engage with the PDP.



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.

Participation



Status Quo



Different

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

- 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?

- 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

- 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.)

Materials/Documentation



Status Quo



Different

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

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

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

- 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)
 - Clear questions
 - Some specified; additions or subtractions depending on context
- Present information in relation to the questions addressed
- Encourage use of web as information presentation tool

Frequency



Status Quo



Different

- 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

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

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

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

Review Process and Meaning



Status Quo

More

Different

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

- “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

- 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

- 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

Action Plan Content



Status Quo

More

Different

- 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

- “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

- 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
 - Resource system operations
 - Resource-related actions recently taken
 - Resource-related actions expected in next two years and documentation in place for those, including RFPs

- 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

Planning Horizon



Status Quo



Different

- 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

- “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

- 20-40 years minimum

- 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

Loads and Customers



Status Quo



Different

- “Old” version for all utilities

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

- 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

- 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

Supply Side Resources



Status Quo



Different

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

- “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

- 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

- 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

Transmission



Status Quo



Different

- 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

- “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

- 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)

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

Distribution



Status Quo



Different

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

- “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

- 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)

- 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

Risk And Uncertainty



Status Quo



Different

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

- “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

- 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

- 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

Role Of Modeling And Modeling Requirements



Status Quo

More

Different

- 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

- “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

- 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

- 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

Services



Status Quo

More

Different

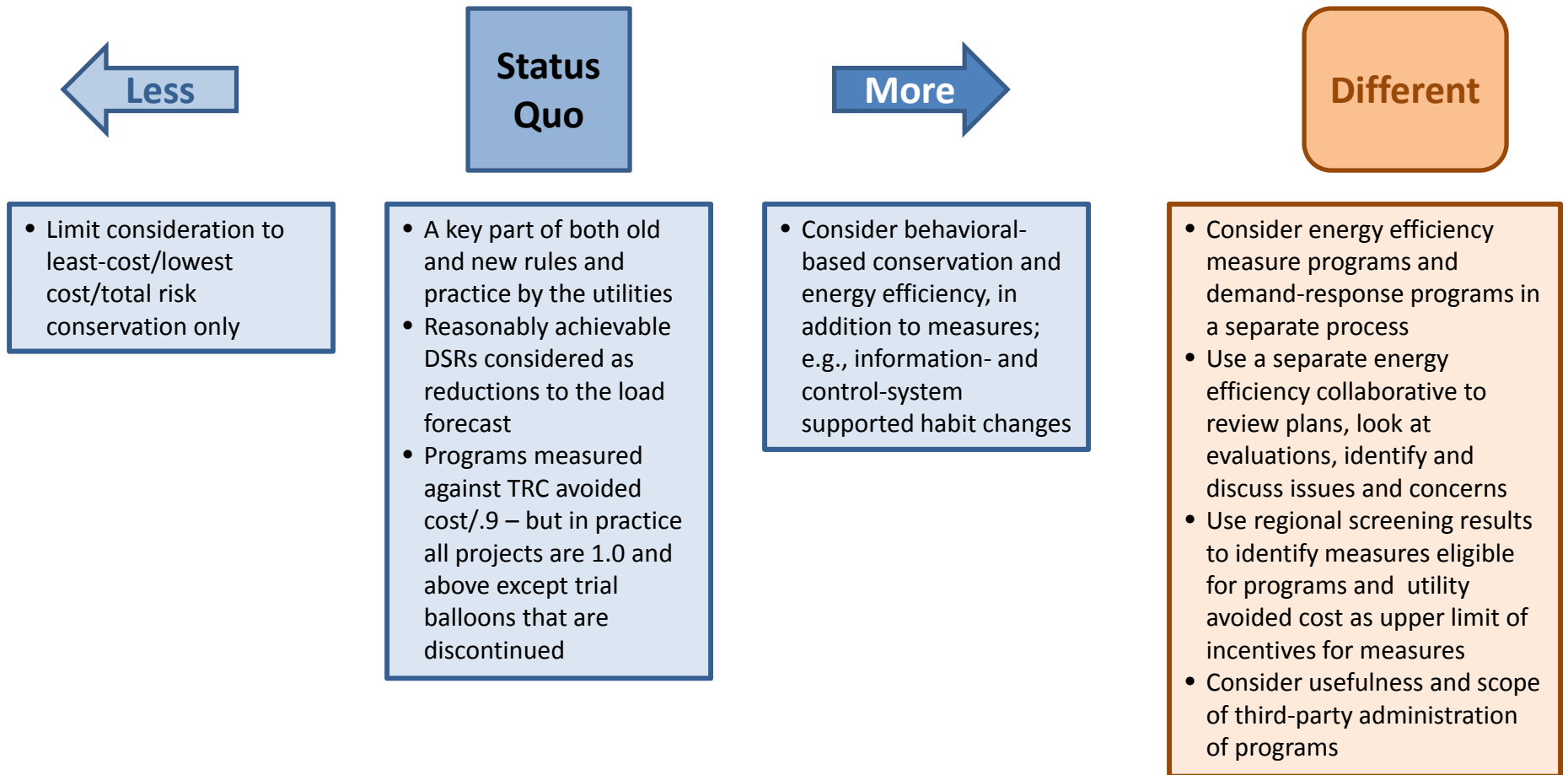
- Abandon concept of looking at rate design or cost allocations
- Exclude consideration of wholesale services or transmission
- Reduce utility role in demand-side management programs, such as by use of third party administrator for some or all measures/programs

- 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

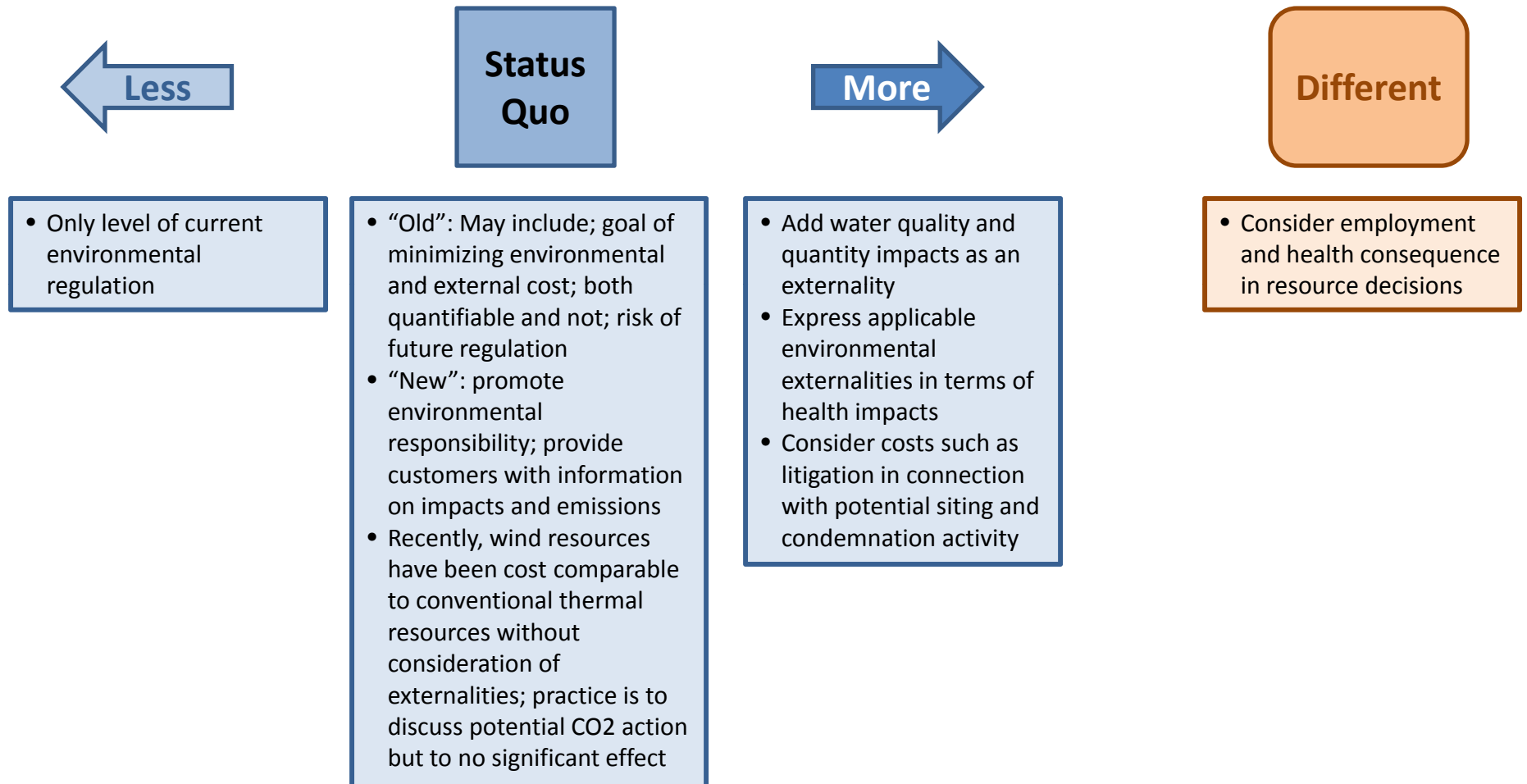
- Enforce looking at rate design and cost allocation in the planning process
- Specifically include currently offered services in the planning practice:
 - What is the service (including current and future demand for it)
 - What resources support it now and will be needed to support it in the future

- 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

Demand Side Resources



Externalities



Procurement Guidance



Status Quo



Different

- 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

- “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

- 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

- 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

RFP Review and Content



Status Quo

More

Different

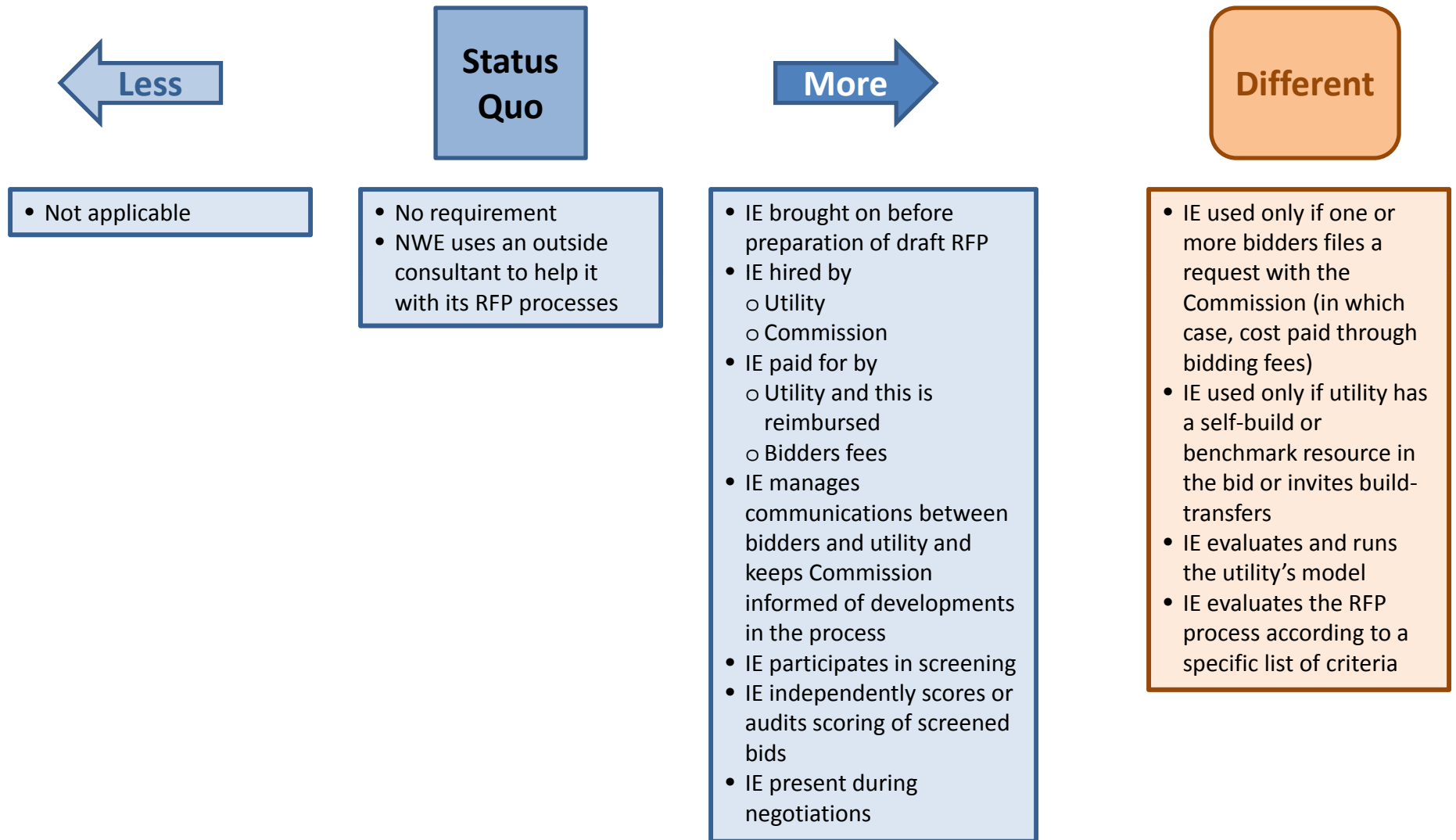
- Not applicable

- 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

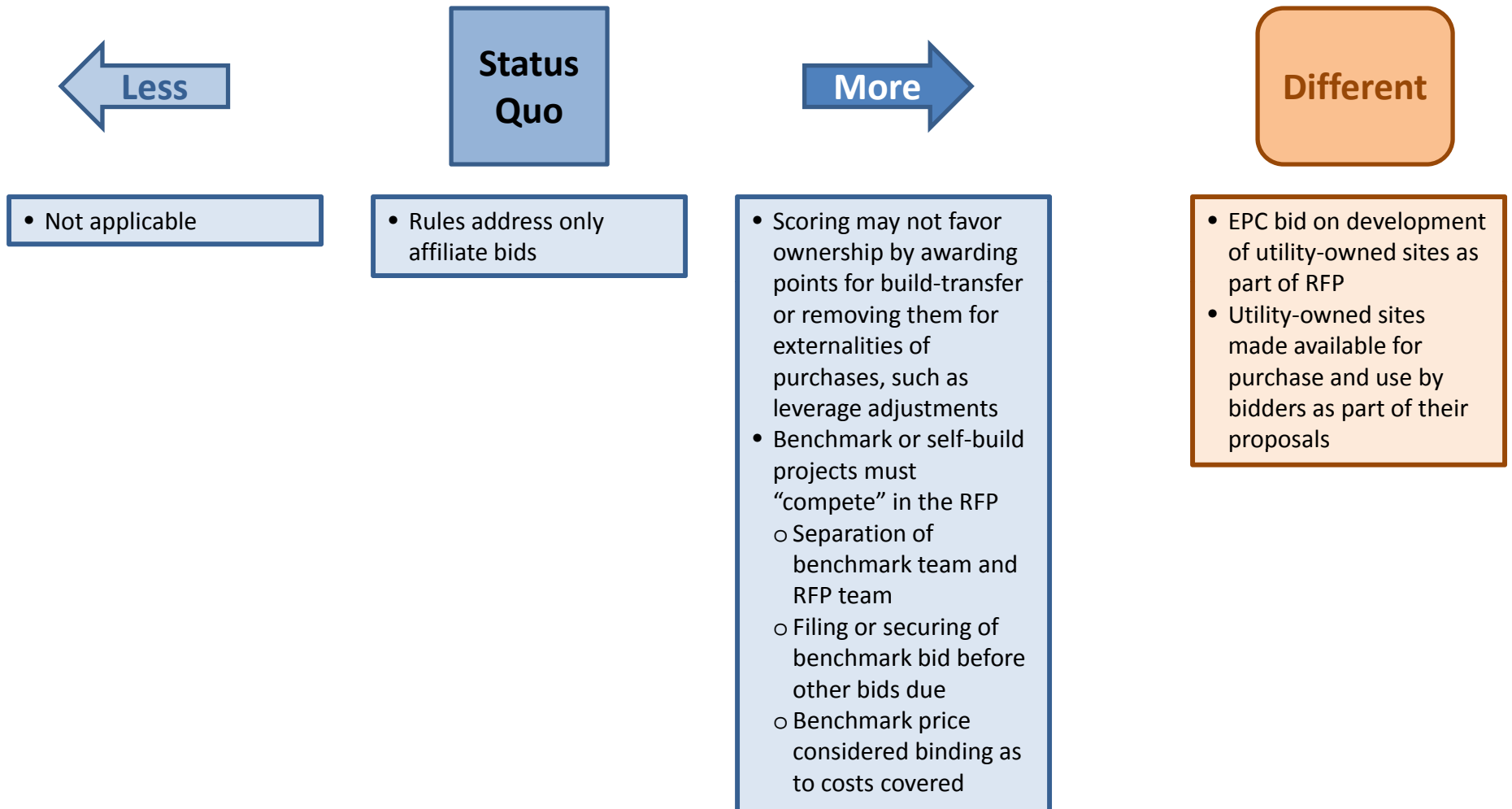
- Provide for circulation of and oral/written comments on draft RFPs
- Require one or more bidders conferences
- Require filing of draft RFP with the Commission, opportunity for comment/hearing, Commission acknowledgement

- Not applicable

Independent Monitor/Evaluator



Benchmarks, Self-bids and Build-Transfers



Results Review

