



Montana's Energy Utility Planning/Decision Practice

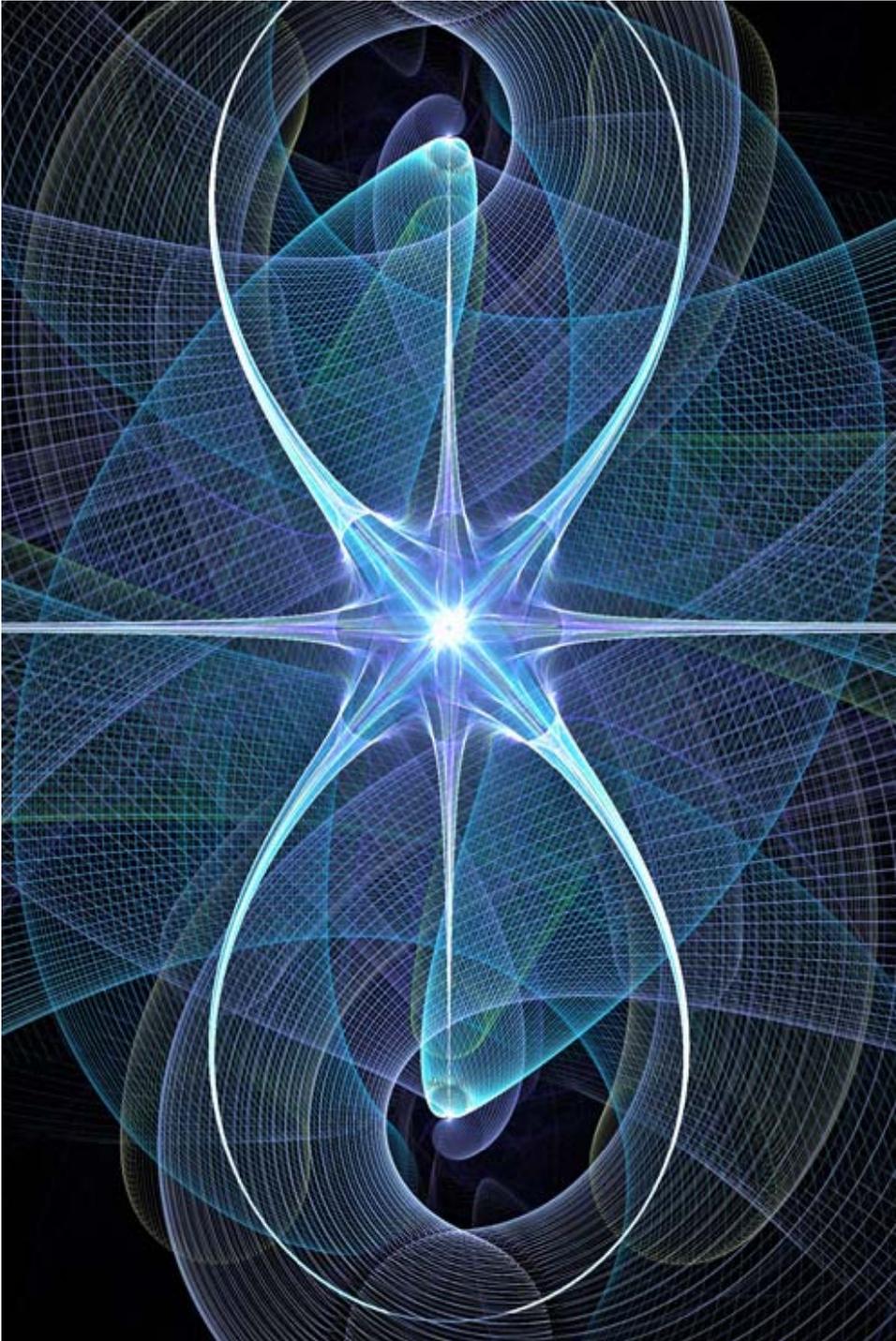
Stakeholder Workshop

June 28, 2012

Workshop Agenda

July 28, 2012 AM

- The Planning/Decision Practices of other States
 - Presentation
 - Small group work
- Using technology for more dynamic access to context
 - Presentation
 - Pairs work on what and how
- Wrap-up



PLANNING/DECISION PRACTICES IN OTHER STATES

Other IRPs are analytical documents filled with many alternative resource strategies, multiple uncertainties and several measures of performance. After hundreds of pages, the typical IRP arrives at a difficult judgment on which resource strategy strikes the best balance among the several measures of performance. This final step is highly judgmental, despite the hundreds of pages of analytical results. . . .

There is no right way to produce the actual plan. One utility may deliver a philosophical document with a clarity in the preferred strategy, but the plan may lack the “what if” simulations to teach us if a different plan would have delivered lower costs or lower risk. Another utility may deliver a highly analytical document with a staggering number of simulations. But such documents face a difficult task of explaining how the preferred strategy is justified by the extensive analysis.

from Review of Electric Utility Integrated Resource Programs; July 14, 2009

prepared for the Bonneville Power Administration

By Andrew Ford Professor of Environmental Science Washington State University

ARIZONA

Standard/Goals

- **Select a portfolio of resources based upon comprehensive consideration of a wide range of supply- and demand-side options that will:**
 - **result in the load-serving entity’s reliably serving the demand for electric energy services;**
 - **address the adverse environmental impacts of power production**
 - **meet renewable, DG, and EE targets**
 - **effectively manage the uncertainty and risks associated with costs, environmental impacts, load forecasts, and other factors**
 - **achieve a reasonable long-term total cost, taking into consideration the objectives set forth in subsections (F)(2) through (7) and the uncertainty of future costs**
- **Acknowledgement standard is “reasonable and in the public interest” with a number of specified factors, including total cost of electric service, flexibility to respond to unforeseen changes, fuel and delivery reliability, environmental impacts, consideration of all relevant resources, risks, and uncertainties, “in the best interest of its customers”, “best combination of expected costs and associated risks”, and coordinated with other utilities**
- **Various portions of rules require a plan that:**
 - **considers using a wide range of resources and promotes fuel and technology diversity**
 - **factors in the delivered cost of all resource options, including costs associated with environmental compliance**
 - **increases the efficiency of the utility’s fossil fueled generation**
 - **reduces environmental impacts and water consumption**
 - **manages errors, risks, and uncertainties**

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Participation	Yes
Duration	15 year
Required Components	Exemptions are available from any IRP or procurement requirement– benefit/cost test applied
• Load forecast	<ul style="list-style-type: none"> • 15 year forecast, w/ and w/o DSR • Every year – detailed data for past year and 10-years’ data at higher level
• SSR evaluation	<ul style="list-style-type: none"> • Projected data on all current resources (including future O&M costs) and wide range of future options (w/ and w/o self-gen); including cost of compliance with environmental regulations, detail on any resources rejected, and costs of self-gen • Every year – detailed data on all existing sources (including self-gen) and system ops, including any energy purchased not under RFP
• DSR evaluation	Robust, including measures rejected
• T&D	All new or refurbished T&D facilities, including why needed
• Rate spread/ Design	No
• Modeling	<ul style="list-style-type: none"> • Must include a calculation of the benefits of generation using renewable energy resources and analysis of integration costs • Staff may ask for additional analyses

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• Risk and uncertainty	<ul style="list-style-type: none"> • Analyses to identify and assess errors, risks, and uncertainties • Analysis of available means for managing errors, risks, and uncertainties such as obtaining additional information, limiting risk exposure, using incentives, creating additional options, incorporating flexibility, and participating in regional generation and transmission projects
• Externalities	May go beyond costs of compliance with existing regulation
• Action Plan	Covers three years post-acknowledgement: <ul style="list-style-type: none"> • Summary of actions to be taken on future resource acquisitions; • Details on resource types, resources capacity, and resource timing
• Other	Filed in the years prior to year plan is due, a work plan that specifies: <ul style="list-style-type: none"> • Outline of contents of the next plan • Method of assessing resource options • Sources of assumptions • Outline of timing and extent of public participation
Formal Review Process	<ul style="list-style-type: none"> • Staff has 6 months to review and prepare comments; Commission order four months thereafter • Timing can be extended if Commission decides to hold hearing or workshop
Ratemaking implications of planning	<ul style="list-style-type: none"> • Considered in ratemakings and other proceedings • “A load-serving entity may seek Commission approval of specific resource planning actions”
Timing	<ul style="list-style-type: none"> • Every even year (but some information filed every year); first plans were in 2012 • In odd years, utility files a “work plan” for the upcoming IRP

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Competitive bidding requirements	<ul style="list-style-type: none"> • “Shall use an RFP process as its primary acquisition process for the wholesale acquisition of energy and capacity, unless an exception applies, including emergencies, planning horizon less than 2 years, genuine unanticipated opportunity providing unique value, or meeting RPS or EERS • Broad range of permissible approaches for acquisition of wholesale energy, capacity, physical hedging
Independent Monitor	<ul style="list-style-type: none"> • Utility shall engage for all RFP processes for procurement of new resources; may retain anyone qualified by Staff and pays them (may charge bidders a reasonable fee to cover or request in rates) • IM will provide status reports to Staff as requested • Utility consults with Staff on vendor list; top 3-5 posted for comments; Staff decides who is qualified
Bid solicitations	Utility must provide IM with copy of any self-build/own proposal one week prior to when bids are due – IM will secure and ensure no one sees until appropriate
Bid evaluations	No requirements
Ratemaking pre-approval	No
Energy cost tracking	Yes

COLORADO

Standard/Goals	<ul style="list-style-type: none"> • Purpose: to establish a process to determine the need for additional electric resources and to develop cost-effective resource portfolios to meet such need reliably • Policy: primary goal is to minimize NPVRR; also to give the fullest possible consideration to the cost-effective implementation of new clean energy and energy-efficient technologies
Planning period	<ul style="list-style-type: none"> • 20-40 years • Plan uses a “resource acquisition period” of 6-10 years (utility to specify) for various purposes, including the period of focus for the resource acquisition plan
Participation	Rules do not require but formal proceeding gets large participation no discussion in ERP of participation in plan preparation stages
Required Components	
• Load forecast	Detailed requirements including a comparison of current forecast to most recent prior plan forecast, and last 5 years’ forecast to actual loads
• Evaluation of existing resources	Owned, purchased, and coordination; projected AF and CF; water requirements, remaining life/contract duration (including modification flexibility); projected emissions; EE installed or to be installed under approved program
• Transmission resources	<ul style="list-style-type: none"> • A 10-year transmission plan is a separate requirement, with its own rule • Includes all facilities 115 kV and above; current and proposed; required assumptions for evaluation and bidding purposes; include cost as part of any resource not competitively bid • Plans contain extensive information on transmission

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<ul style="list-style-type: none"> • Reserve margin 	<ul style="list-style-type: none"> • For resource acquisition period, plans must include multiple load and risk considerations • Base case for the entire planning period • Must include a confidential contingency plan for the resource acquisition period in case load exceeds resources
<ul style="list-style-type: none"> • Need assessment 	<ul style="list-style-type: none"> • Made in consideration of RPS and EE requirements • Projected EE may reduce amount must be acquired through competitive bidding
<ul style="list-style-type: none"> • SSR evaluation 	<ul style="list-style-type: none"> • Because resource planning and procurement is oriented round a competitive bid, plans do not consider an exhaustive set of possible resources • Plans look at cost and operating characteristics and do some portfolio work. The all-source solicitation provides the resources that will be tested in optimization
<ul style="list-style-type: none"> • Procurement documents 	<p>Plan must include:</p> <ul style="list-style-type: none"> • Bid policies (assumptions, criteria, models); • RFP • Model contract(s); • Method of assessing qualitative factors <p>Parties can comment on all of this as part of the plan proceeding</p>
<ul style="list-style-type: none"> • Independent Evaluator 	<ul style="list-style-type: none"> • Commission hires an IE prior to the utility filing a plan, based on a joint recommendation by the utility, Commission staff and the consumer counsel • Utility pays the cost of the IE and trains the IE to run the utility's models • The IE's primary role is to support the Commission's decision-making process
<ul style="list-style-type: none"> • DSR evaluation 	<p>This happens in an entirely separate proceeding</p>
<ul style="list-style-type: none"> • Distribution 	<p>Not part of planning effort</p>

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• Rate spread/design	Does not appear to be explicitly part of planning effort
• Modeling	<ul style="list-style-type: none"> • Preliminary modeling occurs in phase 1 and then extensive modeling in phase 2 to develop specific portfolio choices for Commission decision • PS uses the Strategist model
• Risk and uncertainty	<ul style="list-style-type: none"> • Commission considers various risks in choosing preferred acquisition portfolio • In 2011 plan, PS discussed risk and uncertainty at length
• Externalities	<ul style="list-style-type: none"> • In 2007 plan, Commission ordered PS to develop methods for the qualitative consideration of 3 externalities: economic development, resource diversity, and health effects of emissions • Anticipatable control costs are quantified in resource cost estimates
• Action Plan	<ul style="list-style-type: none"> • This is the utility's plan (bid or alternative) for acquiring the resources it needs, including the projected emissions and water needs for any resources it proposes to own and for any new generic resources included in the modeling • Action Plans must describe at least 3 alternates: <ul style="list-style-type: none"> ○ a base case that minimizes NPVRR ○ alternates that emphasize more renewable, EE, or demonstration/experimental resources
Formal Review Process	Commission approves, disapproves, or requires modifications overall and specific sections (if record permits); if other than approval, utility must file modified plan

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<p>Ratemaking implications of planning</p>	<p>A Commission decision specifically approving the components of a utility’s plan creates a presumption that utility actions consistent with that approval are prudent; utility to present prima facie evidence of consistency; intervenors bear the burden of proof against this or showing changed circumstances timely known or knowable</p>
<p>Timing</p>	<ul style="list-style-type: none"> • Every four years, with annual reports • Utility can request interim plan and various resource acquisitions are permitted that are outside of the whole process
<p>Annual Reports</p>	<p>For 10 years; include updated:</p> <ul style="list-style-type: none"> • Forecast • Assessment of existing gen resources • Assessment of reserve margin & contingency • Assessment of need • Progress on acquisitions under the plan
<p>Competitive bidding requirements/ exemptions</p>	<ul style="list-style-type: none"> • State policy is that all new resources should be acquired through all-source (including utility) bid solicitation • Exemptions include: Less than 30 MW; Less than a 2-year term; Certain contract modifications; Utility DSM programs (encouraged for these); Interruptible service • Exceptions permitted but must fully explain and support with cost-benefit analysis; if the resource is to be utility-owned, it must file a CPCN and provide employment metric information • Commission may retain an IE to assist with evaluation of exceptions

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Bid solicitations	<p>These are filed with resource plan and must include:</p> <ul style="list-style-type: none"> • Model contract for each type of resource including duration • Estimates of transmission costs • Description of resource need • Dispatch requirements • Discount rate • Planning assumptions • any other information necessary to implement a fair and reasonable bidding program <p>Bidders must provide employment metrics</p>
Bid evaluations	<ul style="list-style-type: none"> • Utility has 30 days to file a report summarizing responses and determination whether bid may not meet utility's needs • Utility has 45 days to decide whether to advance bids to computer modeling; if advanced, utility notifies bidder and explains how will model the bid and assumptions that reasonably relate to it; there is a process to resolve disputes about this
Report	<p>The utility has 120 days to file, describing the cost-effective resource plans that conform to the range of scenarios for assessing the costs and benefits from increasing renewable or EE resources as specified in the Commission's decision approving or rejecting the utility plan and the utility's preferred plan if it differs</p>
Process	<p>Comments back and forth</p>

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<p>Commission Decision</p>	<ul style="list-style-type: none"> • Within 90 days after the utility’s report, Commission must issue a decision approving, conditioning, modifying, or rejecting the utility’s preferred cost-effective resource plan; this decision establishes the final cost-effective resource plan • The Commission weighs the public interest benefits of competitively bid resources along with those of resources owned by the utility as rate base investments; renewable energy resources; resources that produce minimal environmental impact; EE technologies; resources that affect employment and the long-term economic viability; contribute to Colorado’s energy security, economic prosperity, environmental protection, and insulation from fuel price increases • During the recent PS case, the Commission ordered the IE to monitor the negotiations for final contracts
<p>Resource ratemaking pre-approval</p>	<p>Not explicit</p>
<p>Energy cost recovery tracking</p>	<p>Yes</p>

IDAHO

Standard/Goals	Per Idaho Power's (IP) latest IRP, the standard/goals are <ul style="list-style-type: none"> • Enough resources to reliably serve growing demand • Balance cost, risk, and environment • Equal, balanced treatment to SSR and DSR • Involve the public in a meaningful way
Participation	<ul style="list-style-type: none"> • The practice is that regular public workshops are part of the process • Meetings of IP's advisory group are open to the public
Required Components	
• Construct	Balanced consideration to SSR and DSR, compared using avoided cost methodology
• Duration	<ul style="list-style-type: none"> • 20 years (IP only started doing a 20-year plan in 2006) • IP does this in two 10-year pieces
• Load forecast	Yes, including uncertainty
• SSR evaluation	<ul style="list-style-type: none"> • Existing (including 5 years' operating statistics) and possible options (additional resource menu) • Encourages specifics, including of potential off-system purchases • Include estimates of potential QFs
• DSR evaluation	Yes – Conservation Analysis Plan
• T&D	<ul style="list-style-type: none"> • Included as relates to resource options; • Fairly extensive transmission discussion in IP 2011 IRP, both as SSR and stand-alone • Most recent IP plan features a transmission line as a prime resource option

IDAHO

• Rate spread/design	No
• Modeling	No explicit requirements
• Risk and uncertainty	Expected costs, reliability and risks in a range of scenarios
• Externalities	Yes, variety of approaches permitted
• Action Plan	Yes
Formal Review Process	Written comments
Ratemaking implications of planning	Accepted for filing only
Timing	Biennially for resource plans, annually for DSR plans
Competitive bidding requirements	No, although IP did use a competitive bid in process of selecting its Langley Gulch project as a new resource; in order granting pre-approval, the Commission indicated intent to open a process to look at competitive bidding
Bid solicitations	NA
Bid evaluations	NA

IDAHO

Resource ratemaking pre-approval	<p>Yes – all aspects of ratemaking treatment may be decided in advance, including capital cost, depreciation, ROE</p> <p>Required showings:</p> <ul style="list-style-type: none">• Utility has in effect a commission-accepted IRP• Services and operations resulting from the facility are in the public interest and will not be detrimental to adequate and reliable electric service;• Utility demonstrates it has considered other sources for long-term electric supply or transmission;• Facility is reasonable compared to energy efficiency, demand-side management and other feasible alternative sources of supply or transmission; and• Utility participates in a regional transmission planning process <p>The Commission used this process most recently for IP’s Langley Gulch project, which saw considerable argument around the fairness of the competitive bidding process and for delay, given rising uncertainties. IP committed to a soft cost cap.</p>
Energy cost tracking	Yes

MICHIGAN

Standard/Goals	REP: yes – costs reasonable and prudent and life-cycle costs (net of EO plan savings) less than cost of new conventional coal-fired generation EO : yes, costs reasonable and prudent and meet system resource cost test IRP: not explicit
Participation	Encouraged for REP, EO; nothing explicit for IRP Note: to date, only one “IRP” filing, by Indiana Michigan for major life extension/upgrade at existing nuclear plant. Just filed . . . no process yet
Required Components	
• Load forecast	REP: Yes, sales for 4 years and customer count for 20 years for purpose of calculating surcharges EO : Same as REP IRP: Yes, “long-term”
• SSR evaluation	REP: No, although plans tend to look at types of available renewable resources EO : No IRP: Yes, although complete review not required, may refer to REP
• DSR evaluation	REP: No EO : Yes IRP: Yes, may refer to EO Plan but not limited to the amount required under law and must address load management and demand response
• T&D	REP: No, only in connection with looking at cost of compliance EO : No IRP: Yes, including economic impact of import/export

MICHIGAN

• Rate spread/design	REP: No EO : No IRP: No
• Modeling	REP: No explicit requirements EO : No explicit requirements IRP: No explicit requirements
• Risk and uncertainty	REP: No explicit requirements EO : No explicit requirements IRP: Yes, including potential changes in laws, scenarios to test critical assumptions
• Externalities	REP: No EO : No IRP: No, except as implicit in risk/uncertainty
• Action Plan	REP: Yes, oriented to compliance with the standard EO : Yes, oriented to compliance with the standard IRP: Yes, showing “best” plan to meet the identified need
• Other	NA
Formal Review Process	REP: Yes, MPSC must approve plan making specific finding that is reasonable and prudent and meets “coal plant” cost test EO : Yes, MPSC must approve plan making specific finding that is reasonable and prudent and meets system resource cost test IRP: Yes, because is in connection with receiving various “certificates”

MICHIGAN

Ratemaking implications of planning	REP: MPSC action approves surcharges, prudence of plans, individual contracts EO : MPSC action approves surcharges, prudence of plans IRP: MPSC approval secures prudence, need findings
Timing	REP: one-time, updates, changes as necessary EO : one-time, updates, changes as necessary IRP: as necessary because of request for certificate
Competitive bidding req'ts	Yes, in connection with REP, at least 50% must be non-utility owned and be acquired via RFP
Bid solicitations	<ul style="list-style-type: none"> • Utility required to maintain a list of qualified bidders • There are various requirements for what must be in RFP • Evaluation criteria need only be provided to bidders submitting notice of intent to bid
Bid evaluations	Fairly flexible with utility, provides for after-the-fact audit
Resource ratemaking pre-approval	<p>Yes, through certificate process requiring an IRP. Available certificates include that:</p> <ul style="list-style-type: none"> • The power to be supplied by a resource or contract is needed; • The size, fuel type, and other design characteristics of the existing or proposed electric generation facility or the terms of the power purchase agreement represent the most reasonable and prudent means of meeting that power need, considering both cost and risk • The cost of the resource or contract will be included in rates <p>The Commission also approves all contracts and resources acquired under the REP, including EPC contracts.</p>
Energy cost tracking	Yes

NORTH DAKOTA

Standard/Goals	<p>There are no explicit standards; implicitly based on MDU's IRP:</p> <ul style="list-style-type: none"> consider all resource options reasonably available to meet the end-use customer's demand for reliable, cost-effective, and environmentally responsible electricity provide a road map for future resources that will produce competitively-priced, reliable power
Participation	MDU maintains an active planning advisory group, drawn from the 3 states in service territory
Required Components	It is not clear these are required (the order under which MDU does IRP is late 1980s and not available electronically) –below is based on MDU plan
• Load forecast	<p>Yes</p> <p>MDU has performed a retrospective look at the accuracy of its forecasts</p>
• SSR evaluation	Yes, based on “feasible” options. MISO provides ample short-term options to buy and sell but lacks long-term options
• DSR evaluation	<p>Yes, based on “feasible” options</p> <p>A 2010 MDU RFP produced a 25-MW DR program</p>
• T&D	No
• Rate spread/design	No
• Modeling	Yes; MDU uses the EPRI tool EGEAS
• Risk and uncertainty	Scenarios-based

NORTH DAKOTA

• Externalities	<ul style="list-style-type: none"> • Per state law, the “commission may not use, require the use of, or allow electric utilities to use environmental externality values in the planning, selection, or acquisition of electric resources or the setting of rates for providing electric service.” • The base case generally reflects only environmental requirements of current law; scenarios may cover other possibilities • Separate voluntary environmental actions may be discussed
• Action Plan	Yes
Formal Review	No, accepted for filing only
Ratemaking implications	Considered, whether in traditional rate case or in the advance approval process
Timing	Every 2 years
Competitive bidding req'ts	No; MDU 2011 plan states it will issue an all-source RFP “to start the next planning cycle” 3 bids from the 2010 RFP were represented in the 2011 IRP
Bid solicitations	No Commission review
Bid evaluations	No Commission review or standards
Resource ratemaking pre-approval	Yes; the law includes a rebuttable presumption that a resource addition in the state is prudent and provides for recovery of sunk cost (with no return) in case a resource is abandoned before it is finished. Statues does not require IRP but MDU referred extensively to it in its recent application for pre-approval of an SCCT
Energy cost tracking	Yes

OREGON

Standard/Goals	<ul style="list-style-type: none"> • “Best combination of expected costs and associated risks and uncertainties for the utility and its customers” or best cost/risk portfolio • PVRR key cost metric • Consistent with the long-run public interest as expressed in state/federal energy policy
Participation	<ul style="list-style-type: none"> • The Commission expects utilities to enable significant public and stakeholder participation, both to contribute as well as receive information • Utilities must make a draft IRP available for public review and comment prior to filing plan with Commission
Required Components	
<ul style="list-style-type: none"> • Planning horizon and parameters 	<ul style="list-style-type: none"> • 20 years plus end effects • All costs reasonably likely to be included in rates over period beyond planning horizon and end of life of resource
<ul style="list-style-type: none"> • Load forecast 	<ul style="list-style-type: none"> • High and low load growth scenarios along with stochastic load risk analysis • Does not include customers on five-year opt-out for direct access because are “effectively” off the system
<ul style="list-style-type: none"> • SSR evaluation 	<ul style="list-style-type: none"> • Energy/demand capability of existing resources • Costs of all possible new resources (energy and demand capability) – commercially available and other – to bridge the gap with load • Evaluated on a consistent and comparable basis, using after-tax COC • Includes different lead-time, duration, location, fuel transportation costs and infrastructure required • Specific guideline for distribution generation – to be included on par with central station

OREGON

<ul style="list-style-type: none"> • DSR evaluation 	<ul style="list-style-type: none"> • Identification and estimated costs of all potential measures, considering anticipated advance in technology • Periodic potential study required • Even if the utility obtains EE through the state’s third-party EE provider (the ETO), it must still include DSR up to cost-effective level in the modeling process but then design action plan consistent with ETO’s projections of acquisition
<ul style="list-style-type: none"> • T&D 	<ul style="list-style-type: none"> • All existing transmission rights as well as transmission additions for any resource portfolios considered • Consider transmission and fuel transportation as resource options for making purchases and sales, or accessing cheaper resources or fuels • Distribution not included but utilities encouraged to have way of looking at local resources to postpone investment outside of IRP
<ul style="list-style-type: none"> • Rate spread/design 	<p>Only demand response</p>
<ul style="list-style-type: none"> • Modeling 	<p>Test representative set of resource portfolios over range of identified risk/uncertainty</p>
<ul style="list-style-type: none"> • Risk and uncertainty 	<p>Risk is a measure of bad outcomes associated with a resource plan; uncertainty is a measure of the quality of information about an event or outcome</p> <ul style="list-style-type: none"> • Certain minimum required areas: hydro, fuel, forced outage, load, GHG compliance; utilities to identify any others considered • Two PVRR scenarios – variability of cost and severity of bad outcome • Must discuss use of physical and financial hedging • Reliability cost/risk trade-off and reserve margin decision • Rank ordering by cost/risk metric and interpretation

OREGON

<ul style="list-style-type: none"> • Risk and uncertainty 	<p>Risk is a measure of bad outcomes associated with a resource plan; uncertainty is a measure of the quality of information about an event or outcome</p> <ul style="list-style-type: none"> • Certain minimum required areas: hydro, fuel, forced outage, load, GHG compliance; utilities to identify any others considered • Two PVRR scenarios – variability of cost and severity of bad outcome • Must discuss use of physical and financial hedging • Reliability cost/risk trade-off and reserve margin decision • Rank ordering by cost/risk metric and interpretation
<ul style="list-style-type: none"> • Externalities 	<p>Limited to costs that are now or may become internalized in the future; sensitivity analysis on range of what may be possible</p>
<ul style="list-style-type: none"> • Action Plan 	<ul style="list-style-type: none"> • Plan that presents best cost/risk, including discussion of any inconsistencies with energy policy or barriers to implementation and key attributes of each resource selected • Loss of load probability, expected planning reserve margin, and expected and worst-case un-served energy should be determined by year for top-performing portfolios
<ul style="list-style-type: none"> • Resource Acquisition 	<ul style="list-style-type: none"> • Identify its proposed acquisition strategy for each resource in its action plan • Assess the advantages and disadvantages of owning a resource instead of purchasing power from another party • Identify any Benchmark Resources it plans to consider in competitive bidding
<ul style="list-style-type: none"> • Other 	<p>Multi-state utilities to plan on an integrated system basis</p>

OREGON

Formal Review Process	<ul style="list-style-type: none"> • Utility to present plan at public meeting before comments due • Staff and parties to complete comments and recommendations within 6 months of filing • Commission to consider comments at public meeting before deciding; may give utility change to revise plan • Commission may include in order requests for analyses or actions in next planning cycle
Ratemaking implications of planning	<ul style="list-style-type: none"> • Acknowledgement means found reasonable at time of decision; generally is of generic resources but utility could request acknowledgement of a specific resource • IRP is not the evidentiary record to be used for prudence – parties may submit other information
Timing	<ul style="list-style-type: none"> • Within two years of last plan acknowledgement – may request extension if do not plan to take any resource actions for at least two years after filing is due • Update is required on anniversary of plan acknowledgement; utility may also do one if anticipates major deviation
Competitive bidding goals	<ul style="list-style-type: none"> • Provide opportunity to minimize long-term energy costs, subject to economic, legal and institutional constraints; • Complement IRP • Not unduly constrain utility management’s prerogative to acquire new resources • Be flexible, allowing the contracting parties to negotiate mutually beneficial exchange agreements • Be understandable and fair

OREGON

Competitive bidding requirements	<ul style="list-style-type: none"> • Must issues for resources greater than 5 years duration and 100 MW. Projects within a tight radius (5 miles) and certain other criteria will be considered as one project for purposes of the 100 MW • Exceptions: <ul style="list-style-type: none"> ○ Emergency or time-limited opportunity of unique value – report within 30 days ○ IRP acknowledges alternate acquisition method ○ Case-by-case waiver – dealt with in 120 days
Ownership options	Bid may include self-build (benchmark) and turnkey options, as well as affiliates (requires blind bidding)
Independent Evaluator	<ul style="list-style-type: none"> • Required for all RFPs, whether have utility owned resources in them or not • Commission staff recommends to Commission who chooses, utility pays but may recover the costs in rates • IE prepares a closing report after selection of the short list • Utility does RFP; IE oversees • If no benchmark resource, IE checks scoring of only a sample of bids
Bid solicitations	<ul style="list-style-type: none"> • Utility must submit draft RFP to Commission for approval, including standard contracts • Utility must conduct bidder workshops in preparing RFP and consult with the IE, who will prepare a recommendation to the Commission re the RFP • Target action on draft within 60 days after filing, per goals • RFP must include evaluation and scoring criteria and min requirements – cannot exclude QFs larger than 10 MW

OREGON

Benchmark resources	<ul style="list-style-type: none"> • Utility must submit detailed score with cost info to Commission and IE prior to opening bidding and this will remain sealed until conclusion of process • Utility may update its benchmark resource only if all bidders allowed to update • Commission may expand role of IE in bids containing a benchmark resource through final selection on a case-by-case basis, if any party so requests during approval of short-list • IE has greater role if bid includes a benchmark resource: must score independently and evaluate unique risks and advantages
Bid evaluations	<ul style="list-style-type: none"> • Detailed requirements re scoring of price and non-price factors and short list and final • IE will evaluate scoring • Utility may consider debt imputation in final selection • Bidders must be allowed to negotiate mutually agreeable different terms
Resource ratemaking pre-approval	No, but utility may request Commission to acknowledge selection of the short list
Energy cost recovery tracking	Partial

SOUTH DAKOTA

Standard/Goals	<p>There are no explicit standards; implicitly based on utility IRPs:</p> <ul style="list-style-type: none"> • Ensure a reasonable level of price stability for its customers • Generate and provide safe, reliable electricity service while complying with all environmental standards • Manage and minimize risk • Continually evaluate renewable resources for the energy supply portfolio, being mindful of the impact on customer rates
Participation	BHP agreed to provide for both public and Commission participation in reparation of the IRP
Required Components	List below reflects contents of both the required ten year plans and the voluntary filed IRPs from BHP and NSP
• Generation	<ul style="list-style-type: none"> • Yes – current and proposed, including potential retirements and a cost-benefit analysis for any such • For BHP, near-term years of modeling compared to actual historical performance; • South Dakota encourages cooperative planning and resource ownership
• Load forecast	<p>Yes</p> <p>For BHP, its loads and resources only</p>
• SSR evaluation	<ul style="list-style-type: none"> • Based on a selection of resources, not “all” • BHP agreed to evaluate new purchased power contracts through a formal solicitation process, or other specific market information identifying the market price for purchased power and to consider both nuclear and small combined cycle units
• DSR evaluation	<ul style="list-style-type: none"> • Plans tend to reflect only load management efforts • South Dakota now has a separate EE process

SOUTH DAKOTA

• T&D	<ul style="list-style-type: none"> • Yes – current and proposed transmission facilities • State now has a separate requirement for reporting on a utility’s smart grid plans
• Rate spread/ design	No
• Modeling	Yes in IRP only
• Risk and uncertainty	Yes, fairly standard approaches (sensitivity, risk trade-offs) in IRP only
• Externalities	Externalities evaluated only as risk of becoming direct cost; BHP agreed to consider third party estimates of potential CO ₂ taxes used by others in planning
• Action Plan	Yes
Formal Review	No
Ratemaking implications of planning	Use intended to relate mostly to siting certificate but both NSP and BHP have successfully used as support for prudence of a resource decision
Timing	Ten-year plan are biennial; IRPs vary

SOUTH DAKOTA

Competitive bidding requirements	None; however, in a recent stipulation BHP agreed to run a solicitation or otherwise get market information before making a resource decision
Bid solicitations	NA
Bid evaluations	NA
Resource ratemaking pre-approval	No
Energy cost recovery tracking	Yes

UTAH

Standard/Goals	<ul style="list-style-type: none"> • Lowest total cost to the utility and its customers and consistent with the long-run public interest • IRP requires the utility to "pursue the least cost alternative for the provision of energy services to its present and future ratepayers that is consistent with safe and reliable service, the fiscal requirements of a financially healthy utility, and the long-run public interest." • Should result in selection of "optimal set of resources given the expected combination of costs, risk and uncertainty"
Participation	<ul style="list-style-type: none"> • Encourages "information exchange," open to the public at all stages • Requires coordination with other jurisdictions
Required Components	
• Planning horizon	20 years
• Basis of resource comparison	<ul style="list-style-type: none"> • All resource options looked at on a consistent and comparable basis • Cost-effectiveness from perspective of utility and the different classes of ratepayers
• Load forecast	<ul style="list-style-type: none"> • Range of estimates required; both demand and energy • Consider economic and demographic facts, including price elasticity and end-use changes • Includes wholesale requirements customers

UTAH

• SSR evaluation	<ul style="list-style-type: none"> • All present and future options, including future market opportunities • Consider life expectancy and flexibility • Includes analysis of role of competitive bidding for both SSR and DSR
• DSR evaluation	All technically feasible and cost-effective measures
• T&D	Transmission yes; distribution only indirectly (e.g. in connection with DSR)
• Rate spread/design	Narrative describing how current rate design is consistent with IRP goals and how changes might facilitate IRP objectives
• Modeling	No explicit requirements
• Risk and uncertainty	<ul style="list-style-type: none"> • Financial, competitive, reliability and operational; including who should bear each risk: utility or customers • Analysis of trade-offs between attributes (e.g. reliability) and cost • Considerations of how to get flexibility in the planning process to utility can take advantage of opportunities and prevent premature closure of options
• Externalities	<ul style="list-style-type: none"> • Required, using ranges rather than precise quantification • RMP uses scenario analysis plus specific externality adders
• Action Plan	<ul style="list-style-type: none"> • Specific decisions deigned to implement IRP in manner consistent with strategic business plan (includes Significant Energy Resource decisions – see below) • 4-year horizon: specifics for 2; outline for 2 • Report on specific actions in the previous plan • To include different paths for different economic circumstances, and way to modify path as future unfolds • Statutory requirement for review of Action Plan in significant resource legislation

UTAH

• Other	<ul style="list-style-type: none"> • Avoided cost determined consistently with IRP • Utility’s “Strategic Business Plan” must directly relate to the IRP • Off-system sales to be considered for impact on risks associated with various strategies
Formal Review Process	<ul style="list-style-type: none"> • Draft submitted for public review and comment • Commission reviews for adherence to guidelines and can return to utility for more work • Utility to give presentation on IRP to Commission and all interested public parties
Ratemaking implications of planning	Acknowledgement only; used in rate cases to evaluate performance and review avoided cost calculations
Timing	Every two years
Competitive bidding req’ts	<ul style="list-style-type: none"> • Required for Significant Energy Resources (see below) • All process fair, reasonable and in the public interest
Bid solicitations	<ul style="list-style-type: none"> • Yes – approval required • Must give at least 60 days notice so Commission can hire independent evaluator (IE) • Pre-bidders conference required • Comments in 45 days; IE comments in 55 days; utility reply comments in 65 days • List of what screening criteria may be, including Commission-approved consideration of imputed debt • Must identify if is a benchmark resource and whether is owned or market – team that works on this (bid team) may not be same as evaluation team and communication restricted • Draft contracts if applicable; evaluation criteria (including weighting and ranking)

UTAH

Bid evaluations	<ul style="list-style-type: none"> • Benchmark resource validated by IE up front and cannot be changed unless all bidders given chance to update/change • IE verifies the models, data
Resource ratemaking pre-approval – Significant Energy Resources	<ul style="list-style-type: none"> • Utility must use competitive bidding for and get pre-approval of Significant Energy Resources: owned, contracted, leased 100 MW or more capacity <u>and</u> 10 years or more duration • Exceptions for (time limits apply to processing): <ul style="list-style-type: none"> ○ Clear emergency ○ Time-limited or technical opportunity ○ Renewable under 300 MW ○ Any other reason that makes exception in the public interest • Commission must act (including holding a hearing) within 120 days unless delay warranted by public interest and shall approve, approve with conditions, or disapprove the action, using same standard as for IRP and including total projected costs for the resource or purchase in the order • Commission must include costs of approved resource in rates, up to costs included in resource approval; increased costs allowed if found prudent given changed circumstances • Process for proceeding if conditions change • Costs incurred to identify, evaluate and submit a benchmark resource (whether or not ever completed or purchased) are also recoverable
Energy cost recovery tracking	Yes

WASHINGTON

Standard/Goals	<ul style="list-style-type: none"> • Meet system demand with a least cost mix of energy supply resources and conversation • Lowest reasonable cost to the utility and ratepayers
Participation	<p>Consultation essential</p> <p>Work plan (see below) to outline plans for public participation</p>
Approach	Detailed and consistent analysis of a wide range of commercially available sources, considering cost, market-volatility risks, DSR uncertainties, dispatchability, effect on system operation, risks imposed on ratepayers, state and federal public policies and the cost of risks associated with environmental effects
Duration	At least ten years; longer if appropriate to resources under consideration; 20 years for load forecasts
Required Components	
• Load forecast	Yes – assess economic effects on consumption and change in end uses (number, type, efficiency)
• SSR evaluation	Yes – wide range
• DSR evaluation	Yes – commercially available
• T&D	Transmission, capability and reliability to extent possible under law; T&D in the comparative evaluation
• Rate spread/design	No
• Modeling	Nothing specified

WASHINGTON

• Risk and uncertainty	Yes – part of lowest reasonable cost
• Externalities	Yes – part of lowest reasonable cost
• Action Plan	Yes – two years Include report on actions taken under prior action plan
• Other	Puget Sound Energy sees IRP as opportunity to explore “strategic issues”
Work Plan	Work plan required 12 months before planned filing, specifying content. Methods, and plan for public participation
Formal Review Process	Public hearing after filing of plan
Ratemaking implications of planning	“Considered” in ratemaking
Timing	Every two years from date of previous filing
Competitive bidding requirements	<ul style="list-style-type: none"> • Yes but as not sole procedure utilities must use to acquire new resources; may construct, operate conservation programs, purchase power through negotiated contracts, or take other action to satisfy their public service obligations • Does not apply when IRP indicates no need within next 3 years • Solicit bids, rank project proposals and identify any bidders meeting minimum requirements • Information obtained in bidding considered in ratemaking

WASHINGTON

Bid solicitations	<ul style="list-style-type: none"> Proposed all-source RFP to Commission within 135 days after IRP due at Commission; comments within 60 days; Commission to approve or suspend RFP within 30 days after comments; solicitation must occur within 30 days of Commission approval If utility or affiliate is bidding, RFP must clearly indicate and how it will ensure no unfair advantage (disclosures to bid team that are not simultaneously public are per se unfair) Utility can choose to do a targeted RFP in addition
RFP content	<ul style="list-style-type: none"> Resource block sought and timing Estimate of avoided costs (subject to update at any time – not a guarantee) General evaluation and ranking procedures – are subject to Commission approval, based on IRP “lowest reasonable cost” criteria Utility is encouraged to consult with staff during preparation of RFP Utility may reject any bids that do not specify cost of complying with environmental regulations
Bid evaluations	<ul style="list-style-type: none"> Utility may reject all if none “adequately serves ratepayers’ interests” Price, price structure and terms all subject to negotiation – but if material changes made to proposal, must re-rank all bids
Independent evaluator	If utility or affiliate is bidding, one or more competing bidders may request commission to appoint IE to assist commission staff in its review of the bid; fees to be paid by the party or parties requesting the IE
Resource ratemaking pre-approval	No
Energy cost tracking	Yes

WYOMING

Standard/Goals	<ul style="list-style-type: none"> Per staff guidelines: may include, but is not limited to, least-cost/least-risk planning, satisfying portfolio standard requirements, providing reliable service, minimizing costs and environmental impacts, and increasing deliverability efficiency, and the justification for the resource portfolio selected Utility to state what standard it is applying
Participation	Public process should begin early before completing plan
Planning Horizon	Near-term is 3-5 years; long-term is 10 – 20 years
Required Components	Most of the below is per Staff guidelines or implicit in the contents of IRPs filed in the state
• Load forecast	Yes, including any change since last IRP forecast
• SSR evaluation	<p>Should include:</p> <ul style="list-style-type: none"> A demonstration and analysis as to whether the resources studied are the least-cost/least risk The types of resources considered A demonstration that assumptions used in the study are reasonable The optimum level and amount of market purchases used in the study, comparison of market purchases in the utility’s portfolio over time
• DSR evaluation	Yes, current and proposed programs
• Reserve margin analysis	Yes

WYOMING

• T&D	Not specifically mentioned; is covered in RMP and BHC plans
• Rate spread/design	No
• Modeling	Yes, but no specific requirements except to state assumptions
• Risk and uncertainty	<ul style="list-style-type: none"> • Sensitivity analysis required; • Must explore risk of market purchases and risk the market purchases will not be economically available in the future
• Externalities	Yes, including specifically CO ₂
• Action Plan	Yes, including any changes from the prior resource plans
Formal Review Process	No – accepted for filing, comments taken and docket closed
Ratemaking implications of planning	None explicit; have been used in rate cases to support resource actions Also used in applications for CPCN
Timing	Not specified; generally every 2-3 years
Competitive bidding requirements	No

WYOMING

Bid solicitations	NA
Bid evaluations	NA
Resource ratemaking pre-approval	No
Energy cost recovery tracking	Yes

Your Turn

1

Gather in teams of 3-4;
we will assign you a
state to assess

2

Answer these questions for the state
planning/decision practice assigned to your team:

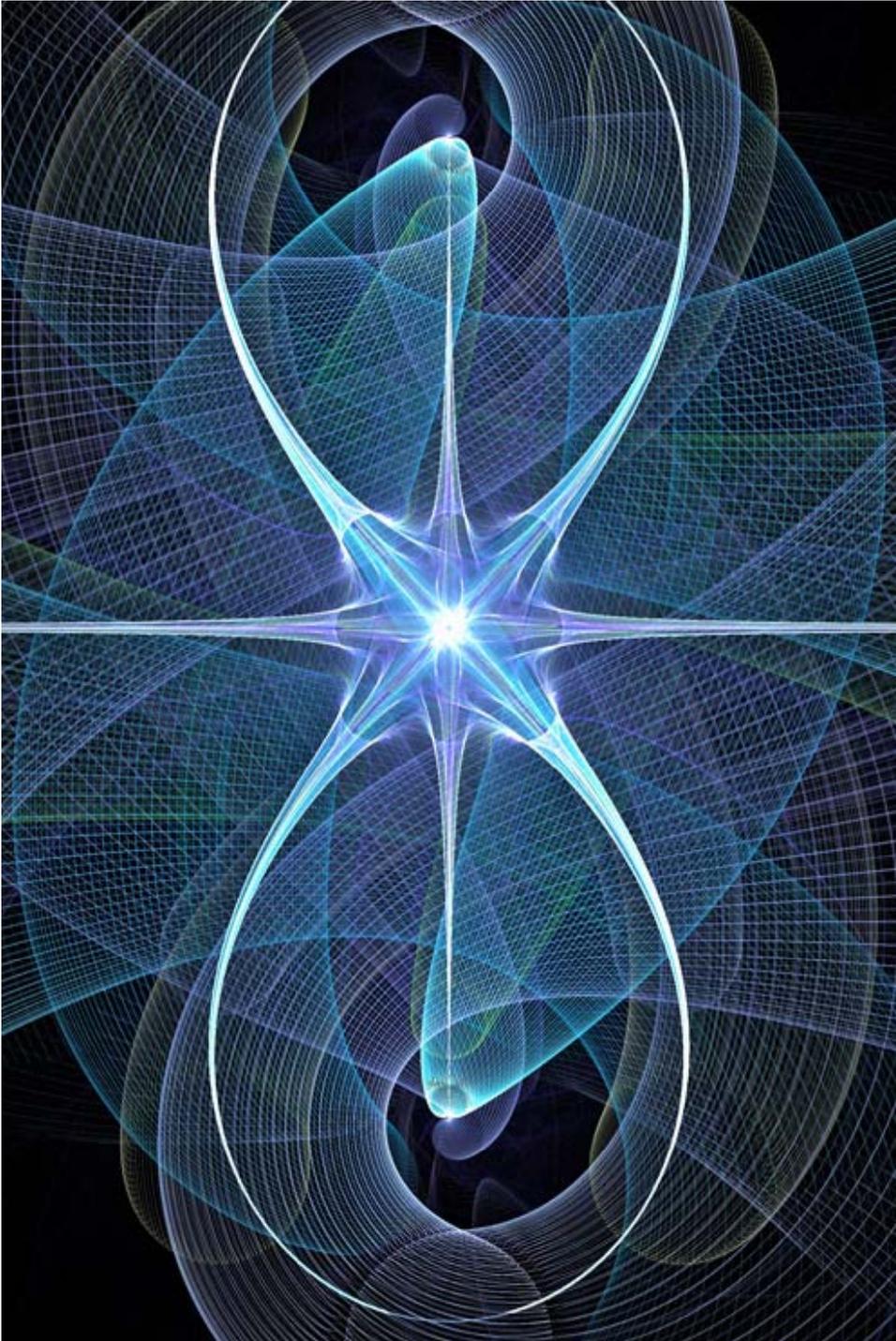
- How is this practice “good”? How is it “bad”
- What intended consequences can we imagine come from following this practice?
- What unintended consequences can we imagine come from following this practice?
- What would we add/remove from this practice to improve it? Why?

3

Switch states with another
team and add to their notes as
you think important to fully
assess the practice (use large
sticky notes)

4

Each team will explain the
assessment for the state they
started with



USING TECHNOLOGY FOR MORE DYNAMIC ACCESS TO CONTENT

Information Management in the 21st Century



This is what many IRP filings and filings related to RFPs look like

IS THERE A BETTER WAY?



And we're all busy, sometimes just trying to organize what we have so we can find what we need



Once the information is on paper, there it stays until we produce more paper

Talking/Listening in Pairs

Group yourselves in pairs
Choose "A" and "B"



To what contextual information would it be useful to have on-demand access?

3 minutes – A talks, B listens
3 minutes – B talks, A listens



What issues might arise with this?

3 minutes – B talks, A listens
3 minutes – A talks, B listens