

UM 2000

April 5 – Workshop Notes

From Exercise

Avoided Costs

- Process
 - Stability and Commission following its own rules
 - Out of cycle changes – visibility justification process rules reliability
 - LEO formation (interacts with contract process)
 - Timing - Update process
 - Ability to understand how non-standard prices are set
 - Avoided costs should be determined under its own process
 - Administratively determined inputs frequently stale
 - If actually avoidable? – Always avoidable? (Broader application)
 - Certainty in timing of Avoided Cost changes
 - Timing for price changes
 - How to capture in avoided costs procurements outside of action plan
 - Need for including PURPA goal of increasing use of renewable energy with other goals such as customer indifference
 - Calculated by Staff instead of utilities?
 - Difficulty of forecasting future resource costs
 - Resource deficiency date vs. inputs RPS
 - Introduce market competition
- Modeling /Methodology
 - Rebuilding methodology from ground up
 - Ability to update with market changes
 - Anomalies and outliers in average cost concept
 - Consideration of environmental and social benefits
 - Best Avoided Cost practice in IRP tools and models
 - Sufficiency Deficiency
 - Resource deficiency date – capacity
 - Define sufficiency and deficiency
 - Including transmission?
 - Firm vs non-firm eligibility
 - Avoided cost methodology (Changes to...)
 - Transparent comparison with cost treatment of utility's own assets
 - Need to account for effects of competition and market
 - Market-based avoided cost – cost of a resource utility can avoid vetted by competitive process
 - Market component
 - Accounting for resources acquired outside of IRP plan
 - Market index pricing
- Assumptions / Inputs
 - Apples to apples on inputs and PPA terms 15 year vs 40 year
 - Carbon compact
 - Cap and trade

UM 2000

April 5 – Workshop Notes

- Ability to challenge prices
- Capacity (value of)
 - Project's capacity contribution
- Verification of inputs
- Account for rapidly decreasing technology costs
- One REC, one price
- Technology (Assessing and Incorporation)
 - Storage
 - Battery pricing

Contract

- Process Issues
 - Seller provided vs utility discretion
 - Timing for existing project to re-new contract (timeline to lock in prices)
 - Process Interactions with utilities email only vs actual need – 15 business days only
 - PPA contracting process – info requests by utilities
 - PPA drafting process – utilities only – no redlines
 - Lead time on
 - Time period for existing projects to “lock” avoided costs
 - Timing of standard PPA process (between 3-10 MW) 15 business days versus 30 business days
 - LEO issue – ability to form without utility action
 - Contract process takes too long
 - Arbitrary timelines in contracting process
 - Contract – No official(?) will answer phone or call
 - Contracting process – every issue and question, anything 15 business days or 30 business days
 - Treatment of contract renewals
 - Contract renewals – need a shorter timeframe for renewals given existing QF projects
 - Non-standard PPA (all aspects)
 - Contraction - No penalties for bad behavior by utilities
 - Post – communication problems
 - Time built into process for QF response
- Provisions
 - Need for “Performance Guarantee”
 - Need LEO tied to project viability – currently a free option
 - EIM – contract changes to standard PPA
 - Forecasting and scheduling provisions
 - Liquidated damages
 - Term number of years
 - Adjusting price during term
 - Resource types differences vs similarities
 - Changing standard terms over time – evolution
 - Definition of baseload
 - Interconnection impact on PPA compliance
 - Ability to change COD based on interconnection delays
 - Lender protection provisions – estoppels, notices, consent to assign (Fast track?)
 - Intra-hour
 - Changes in contract information requirements
 - Interconnection study requirements prior to contracting/LEO
 - Availability of long term contracts (e.g. schedule 202)
 - Ability to change QF size at the end of the interconnection process
 - Sufficient long-term firm transmission must be obtained to deliver power on utility system
 - With sufficient ATC

UM 2000

April 5 – Workshop Notes

- Need for concrete project info and future milestones during process
- Finance
- Treatment of battery
- Ability to update standard contracts expeditiously
- Upgrades and storage
- Time before PPA starts for existing QFs
- Disputes
 - Contested case process
 - Fair decision made, access to court
 - Efficient and effective dispute resolution
 - Disputes – during – after
 - LEO
- Rates/Timing
 - Interaction of contract process with avoided cost changes
 - Load pocket generation surplus
 - Relationship of timing of avoided cost changes
 - Update of PPA tariffs and standard PPA processes and timing
- Other
 - One standard contract offer
 - Number of separate standard contracts
 - OPUC policies implemented differently

Interconnection

- Utility-Developer Interaction
 - Better communication between developer and utility engineer
 - Studies – ability to: audit, self-perform, challenge, discuss
 - NR eligibility – Audit – Self perform
 - Interconnection – need customer right to self-perform studies, builds with quality vendors
 - Studies – ability to: audit, self-perform, challenge, discuss
 - Study – Inputs develop interconnection, right to have so can validate
 - Third party studies and construction
 - Access to previous studies
 - More transparency access to data
 - Additional transparency
 - Transparency – access to data – study data - regs
 - Analytics – history on how process is working
 - Data on study process – audit/analyze
 - Third party engineering firm allowed to review substance of interconnection report
 - Communication with engineers
 - Requirement that studies receive stamps
 - Timing of requests in relation to purchase contracts
 - Sources of utility cost assumptions
- Overall Process
 - No response obligation for utilities – silence!
 - Network upgrade costs as a means to burden QF interconnection
 - Who pays for network upgrades vs customer indifference education
 - Education on difference between interconnection and transmission
 - Requirement for back and forth on interconnection study report
 - Timing of advance payments, refunds for overpayments
 - Interconnection options fundamental options
 - Remedy if utility is short-staffed
 - Utility Staff for interconnection studies (why delay? Short staffed?)
 - Enough information to verify study results
 - Process – barriers in implementation
- Classification
 - Special QF process – NR resource
 - The requirement that QFs take NRIS
 - #1 NR requirements for QF PPA eligibility is garbage not consistent with variable resource \$\$\$
 - Requirement to identify as QF (or not) at beginning of process
 - Inordinately high costs of network upgrades without sufficient technical justification
 - Prompt payments
 - Appropriate cost assignment for upgrades
- Other
 - AR 521 language – third party contractor reschedule
 - IOU RFPs use interconnection bid criteria to exclude RFP participation – ratepayers screwed

UM 2000

April 5 – Workshop Notes

- Interconnection queue issues deny ratepayers competitive options QFs RFP bidders
- Transmission – utility claim conditional firm isn't long-term firm
- Education
- Real-time communication (SCADA) data
- Data protection cyber/physical security issues
- Oversight
 - No consequences for utility bad behavior
 - Education difference between open access policies and PURPA policies
 - Utilities not making schedule – studies – tariff – builds
 - Conflicts between PPA and interconnection agreements
 - PPA and interconnection agreements interaction
 - Changes to PPA COD due to delays
 - Need more strict requirements for utilities to follow timelines.
 - Enforcement of existing rules
 - Utility penalties on utility for failure to complete interconnection
 - Publication of interconnection study requirements
 - Utilities need to comply with rules
 - Lack of effective dispute resolution
- Queue
 - Lack of movement by PAC in processing the IC queue
 - Keeping queue up to date
 - Education on serial queue order interconnection process requirements for QFs and non-QFs
 - Make load queue public (load vs generation effects) study outcomes
 - Education appropriate use of publicly available interconnection data
- Load Pockets
 - Exist? Load pockets
 - “Load pockets”
 - Queue and load pockets
 - Education on load pockets
 - Customer indifference in constrained areas
 - Responsibility to locate project
- State – federal guidelines
 - Entire QF-specific interconnection study construct is bogus (vs FERC OATT)
 - Comparison of current OATT tariff – policy different from federal mandate
 - What rules/guidelines apply to 10-20 MW projects?
 - Use of “QF interconnection process/rules” artificial barrier to evade PURPA
- Costs
 - No cost sharing
 - Cost allocation responsibility
 - Lack of refunds for network upgrades
 - Cost
 - Lower cost equipment alternatives
 - Cost – What – How much

UM 2000

April 5 – Workshop Notes

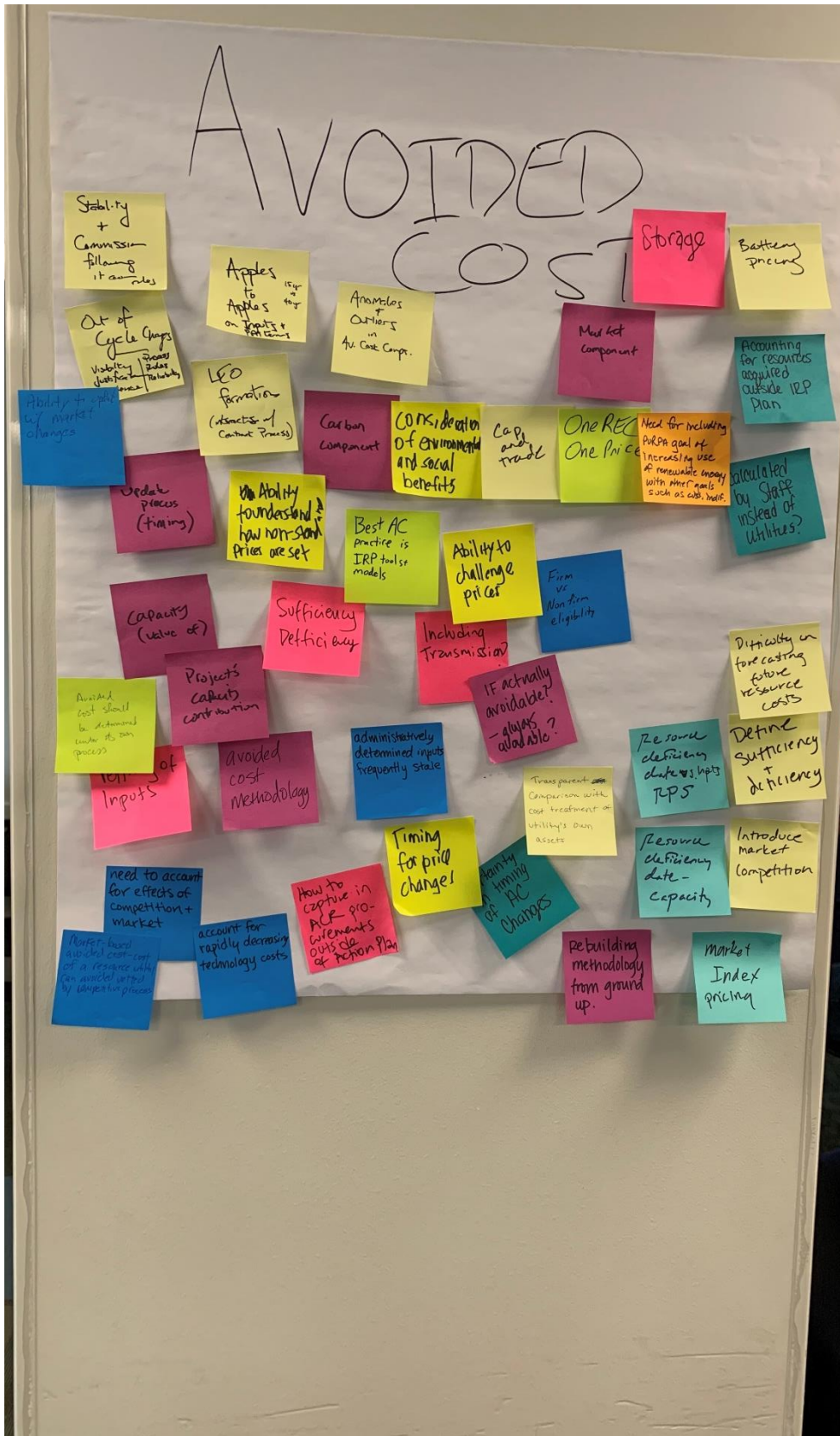
- Other
 - Informal technical dispute advisory board of industry representatives like OJUA
 - Mini focused issue workshops
 - Option put all options on the table
 - Communication

UM 2000

April 5 – Workshop Notes

Planning:

- Online assumptions
 - QF renewal assumptions
 - Do not assume all QFs in the queue or requesting contracts will reach COD
 - Treatment of QF queue in IRP assumptions, need, avoided cost
 - QF success rate vs use/assumptions in IRP and avoided costs
 - Utility plans for QF coming online but PPAs do not provide binding provisions for them to actually do so
 - Batch/timeframe for QF application and contract execution
 - Realistic assumptions for QFs to come online
- IRP-Issues
 - Ability to challenge IRP
 - Timing mismatch in IRP and avoided costs
 - Long-term planning assumptions not developed for pricing assumptions
 - Stale data
 - QF ability to rely on process vs IRP vs Avoided Cost Updates/tying
 - Review and inputs from stakeholders on inputs to Avoided Costs
 - How sufficiency and deficiency dates are determined, IRP might not be accurate
 - Is the IRP the appropriate place to derive avoided cost inputs?
 - What is utility need, e.g. need = FOTs
 - Sufficiency/deficiency
 - Sufficiency/deficiency
- Process
 - Timing how IRP timeline fits into other processes
 - IRP-RFP
 - IRP is a planning document, not a binding document
 - Very little scrutiny outside of IRP action plan window
 - Inconsistent with actual plans/actions
 - Its tie to Avoided Cost pricing or not
 - Standard for avoided cost changes vs IRP process
- Other
 - PacifiCorp: merch. Priority
 - Distribution System Planning
 - Can IOUS reserve transmission capacity for themselves
 - Meaningful damage provisions
 - ATC at delivery points
 - Real-time capacity contribution values
 - Not reflected





INTERCONNECTION

aka. I/C, IX, IC

- Ability to:**
 - Audit
 - Self-Ripen
 - Challenge
 - Discuss
- IOS RFPs**
 - Use information
 - IX Bid Criteria
 - to exclude RFP
 - process
 - → change scenario
- Interconnect**
 - Queue Issues
 - Daily Prepayments
 - Competitive Ops
 - → RFP build
- Cost**
- THE "REQUIREMENT" THAT QFS TAKE NRIS**
- #1: NR**
 - Requirement
 - All QF RFP
 - ability
 - to "audit"
 - to challenge
 - to discuss
- No Consequences for Utility Bid Behavior or Delay**
- EDUCATION ON DIFFERENCE BETWEEN OPEN ACCESS POLICIES AND PURPA POLICIES**
- EDUCATION ON DIFFERENCE BETWEEN INTERCONNECTION AND TRANSMISSION**
- Timing of advance payments, refunds for overpayments**
 - that studies require stamps
- Need more strict requirements for utilities to follow timelines**
- Additional transparency**
 - Transmission
 - Utility class
 - CF vs LTF
 - other best equipment alternatives
- Remedy if Utility is short-staffed**
- Requirements to identify as QF (or at beginning of process)**
- Lack of effective dispute resolution**
- Real-time communication (SCADA)**
- Data Protection Cyber/physical Security Issues**
- Communication w/ engineers**
- Utilities need to comply with rules**
- Responsibility to locate project**
- Prompt Payments**
- Enough information to verify study results**
- INDEMNIFY WITH COST OF NETWORK UPDATES IN SUFFICIENT TECHNICAL JUSTIFICATION**
- EDUCATION ON SERIAL-QUEUE ORDER INTERCON. PROCESSING REQUIREMENTS FOR QF AND NON-QF**
- "load pockets"**
 - Util Pen on for failure to comply IX
- sources of utility cost assumptions**
 - educate appropriate use of available interconnection data
- What rules guidelines apply to 10-10 MW projects?**
- More transparency access to data**
- Changes to CDD due to delays**
- publication of interconnect study requirements**
- Requirement for back and forth/feedback on interconnect study report**
- 3rd party engineering firm allowed to review substance of interconnect study report**
- cautionary business plan I/C areas!**
- INDIFFERENCE IN CONSTRAINED AREAS**
- Utilities Note**
 - Making schedule
 - Studies - FWH
- Network Upgrade Costs as means to broken QF interconnect.**
- Communication w/ engineers**
- ILC options**
 - fundamental options
- Network Upgrade Costs as means to broken QF interconnect.**
- EDUCATION ON DIFFERENCE BETWEEN OPEN ACCESS POLICIES AND PURPA POLICIES**
- EDUCATION ON DIFFERENCE BETWEEN INTERCONNECTION AND TRANSMISSION**
- Timing of advance payments, refunds for overpayments**
 - that studies require stamps
- Need more strict requirements for utilities to follow timelines**
- Additional transparency**
 - Transmission
 - Utility class
 - CF vs LTF
 - other best equipment alternatives
- Remedy if Utility is short-staffed**
- Requirements to identify as QF (or at beginning of process)**
- Lack of effective dispute resolution**
- Real-time communication (SCADA)**
- Data Protection Cyber/physical Security Issues**
- Communication w/ engineers**
- Utilities need to comply with rules**
- Responsibility to locate project**
- Prompt Payments**
- Enough information to verify study results**
- INDEMNIFY WITH COST OF NETWORK UPDATES IN SUFFICIENT TECHNICAL JUSTIFICATION**
- EDUCATION ON SERIAL-QUEUE ORDER INTERCON. PROCESSING REQUIREMENTS FOR QF AND NON-QF**
- "load pockets"**
 - Util Pen on for failure to comply IX
- sources of utility cost assumptions**
 - educate appropriate use of available interconnection data
- What rules guidelines apply to 10-10 MW projects?**
- More transparency access to data**
- Changes to CDD due to delays**
- publication of interconnect study requirements**
- Requirement for back and forth/feedback on interconnect study report**
- 3rd party engineering firm allowed to review substance of interconnect study report**
- cautionary business plan I/C areas!**
- INDIFFERENCE IN CONSTRAINED AREAS**
- Utilities Note**
 - Making schedule
 - Studies - FWH
- Network Upgrade Costs as means to broken QF interconnect.**

- No cost shifting**
- Cost Allocation Responsibility**
- Lack of Refunds for Network Upgrades**

