A large blue triangle graphic is located in the bottom-left corner of the slide, pointing towards the top-right.

NewSunTM ENERGY

NewSun Energy Presentation

BPA TC-25 Customer-Led Workshop

Interconnection Reform

April 21st, 2023

V230421-FINAL

Agenda/Outline

- **1) About NewSun / Experience**
- **2) Background & Context**
 - Why BPA (+ PNW) is Different
 - Core Principles & Observations & Goals
 - BPA OATT Features & Functions
- **3) Strawman Proposal: Seniority-Based 3-Phase Cluster Study, via Triaged Transition Process.** Built around current BPA IX Tariff/Process. Details + Reasoning.
- **4) Additional Recommendations**
- **Comments** on Specific BPA Proposals & Others' Comments
- **5) Q&A** (& along-the-way)

Section 1: NewSun / Experience

- Careers, interconnections, markets, projects, reforms, regulatory
- BPA + PNW experience
 - Interconnections
 - TSEP / TSRs / Transmission Service
 - Working with BPA teams
- GI Reform Experience
 - CAISO cluster conversion
 - PAC, FERC comments

Section 2: Background & Context



- A. Why BPA (+PNW) is Different – Particularly As Relates GI Reform
- B. Open Access – It Matters
- C. Core Principles, Observations, Goals
 - Goals
 - Principles
 - Observations
- D. BPA OATT vs Other GI “Reforms”
 - A. Issues Seen With Recent GI / Queue “Reform”
 - B. BPA

A) Why BPA (+PNW) is Different



- **BPA as the Backbone + Super Highway of the PNW Market**
- **Radically Diverse Stakeholders, Market Participants** -- See Next Slide!
 - Across many, many factors and cross-sections
 - All Doing business, simultaneously in every which direction and way
 - All/Mixes of: Contractual Obligations + Tariff Reliances + BPA service reliances (and limits)
- **Long-Term Firm Transmission Agreements** – And Lots Of Them. Liabilities.
- **TO with No Rate-Basing Bias.** Not trying to beat its TCs/ICs in Market
- **Public Power.** Preferences, Obligations, History, Assets, Finances, ...
- **Various Federal Entity Constraints**
- **Its Own History + Tariffs**
- **FERC Regulation... Well, No, Not Really.** Independent, but...

BPA Stakeholder Mega-Diversity

So Many Types, So Many Ways to Slice Us...

- Publics + IOU + ESS
- Power Trading + (L/T) Power Supply
- Gen-Owning + Non-Gen-Owning
- Slices + Dispatchable Assets + Block + Load-Following + Hybrids
- Developers + Operators; Sellers + Buyers + Both
- Regulated + Non-Regulated
- Big Folks + Small Folks
- Supply, Trading & PPAs: Real Time + Long-Term + 5-year
- TOs + non-TOs
- LSE Load Growth + Non-Load Growth + Wide Range
- 100% Self-Procuring + 100% 3rd Party Dependent + Mixed Sources (BPA + non-BPA);
 - Self: In-House + Out of House

Meanwhile...

Supply Pressures, including Regulatory + Market Demand Overlays++:

- WUTC + CETA
- OPUC + HB 2021 + RPS
- New Load Growth
 - Smaller Publics
 - Mega-Industrials
- Cities, LSEs, TCs, IOUs, NT, ...
- EIM
- Interties + CA demand
- Gen Retirements
- PSPS
- ...

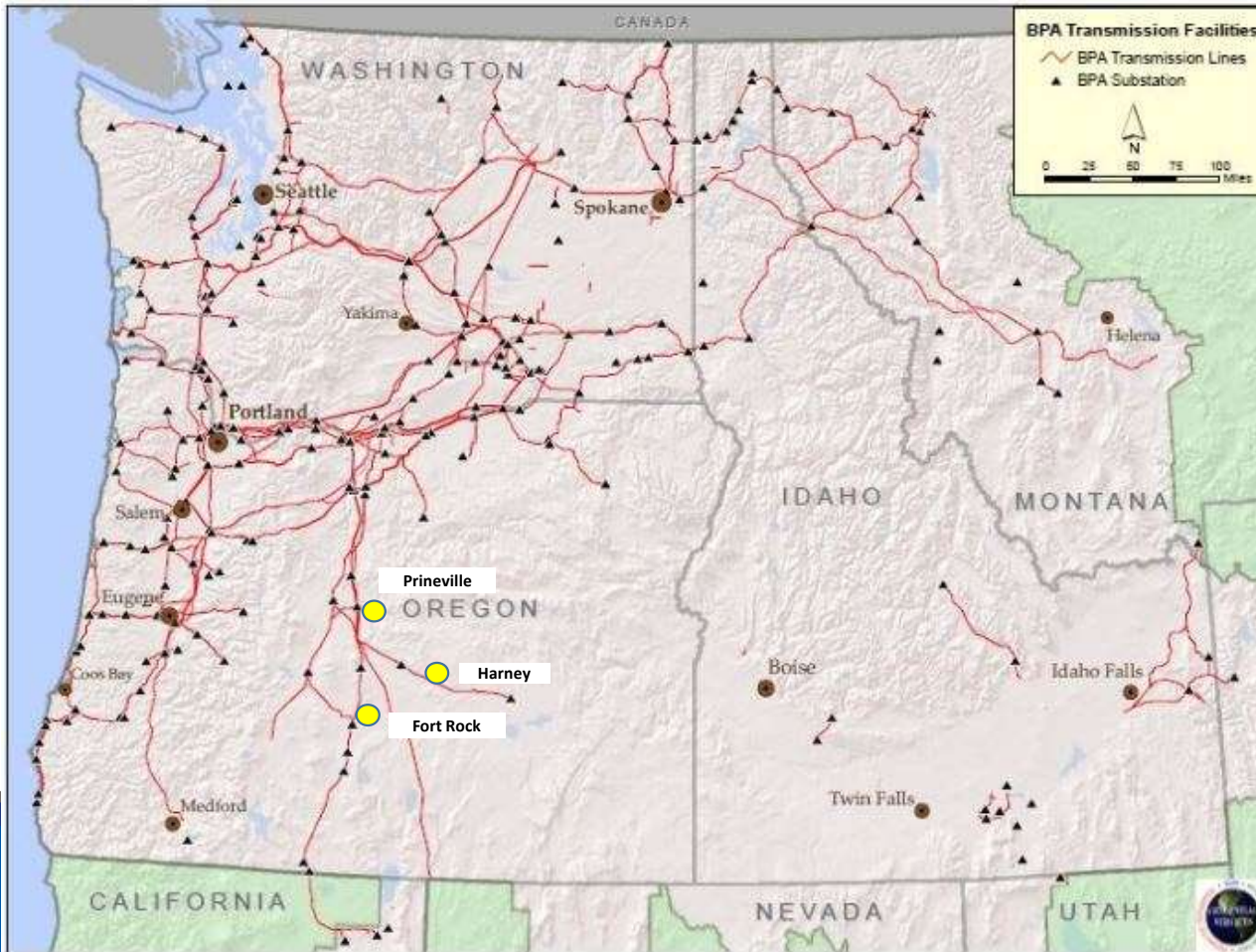
And still more ways to slice us...

- IRPs: Regular + PUC regulated + Seldom + Never + Multi-State
- Regularly Run RFPs vs Never-Have RFP'd vs. Rarely
- NT + non-NT + Both/Mixed
- All Requirements + Partial Requirements
- New Supply Needed for... Single Major New Load + Incremental Load Growth + Multiple Mega New Loads + BitCoinMining!
- Transmission Rights Holders: TSAs + Nothing + Capacity Rights Holders + TOs
- TSEPs: In LTF Pending Queue + Never-Ever + New Entrants
- Long-Time BPA Market Participants + Brand-New-to-BPA
- GI Queue: Front Of Line + Back of Line + Middle of Line + ...
- PNW-only + Single State + Multi-State + Multi-Market
- Serving PNW Load Only + Not-Serving-PNW-Loads
- \$: Massive Balance Sheets + Rate-Base-Rights + Lean-and-Mean + P/E Funded + Local Coops + ...

More on BPA ~Uniqueness

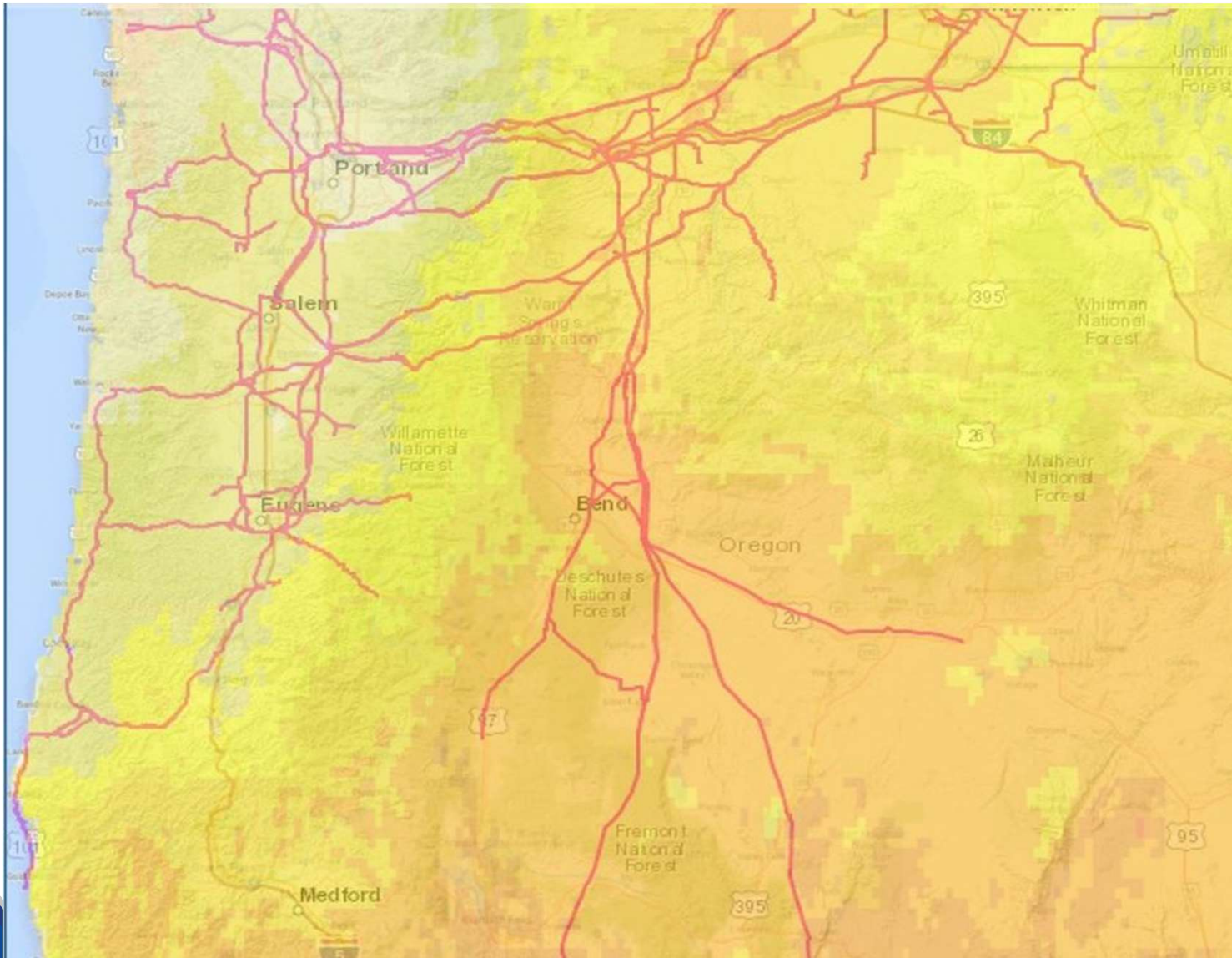
- **Not an RTO**
- **No guaranteed generator access to *prices* at Gen's POIs**
- **New Projects (and many others) have to “get their power somewhere” to sell it – i.e. to get revenue**
- **Bilateral Market (overwhelmingly)**
 - Bilateral Power Contracts: L/T + S/T
 - Bilateral Transmission Contracts
- **Customers live & receive in lots of different places (diverse PORs)**
- **Financing Projects means Getting Power to Customers/Prices/Revenue in reliable ways**

BPA – Backbone / Superhighway of the PNW



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- **BPA serves 142 different LSEs, incl.**
 - 6 IOUs
 - 54 Co-ops
 - 42 municipalities
 - 28 PUDs
 - +Power to CA / NWACI / PDCI / SMUD...
- **6 IOUs**
 - Pacific Power
 - Portland General Electric
 - Puget Sound Electric
 - Avista
 - Idaho Power
 - NorthWestern Energy
- **Power Marketers & ESS**
 - Morgan Stanley
 - Shell Energy
 - PowerEx
 - TEA
 - Avangrid
- **New & Corporate/Data Center Loads**
 - Meta/Facebook
 - Apple
 - Alphabet/Google
 - Amazon
 - Intel



Sun
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Market: Gen Dev, GIs, TSAs, Deals



- **BPA Real World:**

- Queue Interconnection & Project Development
- Transmission Contracts Signed: TSAs = Liabilities
- Finite BPA Project Manager Resources

**COMPLEXITY OF
CIRCUMSTANCES AND
SITUATIONS**

- **Some Market & GI Dev Cases – To Mix & Match**

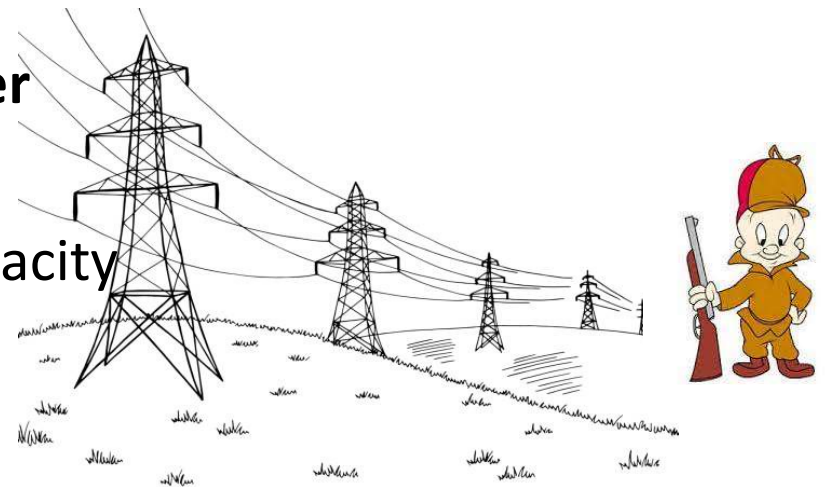
- IPP in negotiation with IOU-1
- Public Power LSE negotiating PPA with IPP
- IOU-X trying to expand rate base
- PPA security (\$MMs) posted / not posted
- Public Lands sited Projects
- LGIR IC cases:
 - Mix of Study Status, Deals & Bids, Security Postings, Transparency, and Counterparties
 - Mix of Transmission Backdrops (TSAs, L/T, S/T, 3rd Party, Buyer Provided, etc)

**AMPLIFIES THE
COMPLEXITY AND RISKS
FOR CHANGES –**

**AND FOR UNINTENDED
CONSEQUENCES AND
HARMS**

B) Open Access: A Success Story That Matters **NewSun** ENERGY

- **Once Upon Time... In the Land of “Natural Monopolies”:** “Sorry, Private Property...”
- **Then: The Advent of Independent Power**
- **FERC Orders 888, 889, 1000, ++**
- **Today: 1,000+ GW Installed US Gen Capacity**
- **Examples: National, CA/AZ, PNW / BPA**
 - BPA Interconnection Success:
 - 8,500 MW Interconnected since 1997!



*“Plug your power plant into my line?
Sorry... Private Property.”*

“Now is it duck season or rabbit season?”

Open Access IX/TX Matters!!



- **Core Platform Upon Which All Independent Power Development is Based – the Foundation of Investment**
 - Analogies: Risk Free Rates
 - Contrast: Banana Republic Investment Risk
 - **Platform Matters:**
 - Knowability Matters!
 - Stability Matters!
 - Investability Matters!
 - Functional-ity Matters!
 - Neutrality Matters!
 - Non-Abusability (by TOs) Matters!
- These things interact with other decisions, actions, contracts, risks, liabilities, transactions, negotiations, ...*
- **Why? *Reliability*. Because development is *unavoidably* hard, risky, many unknowables**
 - **The Ground Being Able to Move Out From Under You is Bad.**
 - Flows through to market prices (risk=cost), destabilizing investment environment
 - Undermines protections and framework to protect competition – and agt IOU abuse

C) Goals, Principles, Observations



- Goals for GI Reform
- Open Access: A Success Story that Matters

- Core Principles
- General Observations vis-à-vis GI: Market, Competition, New Climate Energy World
- Why BPA+PNW is Different & Where BPA Shines
- Why Non-Developer, non-IOU Stakeholders Should Care
- Lessons from Prior GI “Reform”: CAISO, PAC, RTOs
- Conflicting Incentives

- Key Features & Function of Current BPA (& FERC Pro Forma) OATTs
- Core Principles + Key Goals
- Do’s and Don’ts

Goals for GI Reform – High Level

- **Investable, Stable Platform; for:**
 - Development Investment
 - Market Options
- **Improving Efficiency of *Study* Processes**
 - Reduce Log Jams
 - Improve throughput to GIA / E&P phase
- **Preserve Platform Neutrality**
 - BPA as market facilitating platform
- **Maintain – and do not harm – Market Access to Existing Gen Supply Options Under Development**
 - Need them for Climate + Clean Energy Standards
- **Focus on Actions w/ Outsized *Knowable* Benefits (w/o harm risk)**
- **Avoid:** Unnecessary Risks; Unsettling the Market; Avoid Unintended Consequences
 - Ergo: Avoid Chutes-and-Ladders Systems
- **Don't have to solve every problem;** other efforts can occur elsewhere &/or later

Goals for BPA GI Reform: Specific



TARIFF & BIZ PRACTICES Outcomes Needed:

- Honor/Respect investments made in good faith in existing OATT, to conclusion
- Functional & Investable Platform for Market Power Development
- *Functional* Study Program; Useful Study Results.
- Platform Neutrality
- Non-Punitive
- Facilitate Market Participants abilities to:
 - Self-solve problems (during study process) – improved outcomes
 - Compete in Market, Bring Market Options (result of study process)
 - Expand viable market supply
- Meshes with Public Power Supply, Load Growth, and Mkt Power Trading
- Not repeat or amplify mistakes of other recent “queue reforms”
- Avoid Chutes-and-Ladders
- Take the Long-Term View: Core Market, Competition Principles: Healthy, Abuse-Free Framework

OTHER FRONTS: Need Expanded Engineering & PM Bandwidth, Paths & Funding.

This is addressable here via BPA commitments to engage (like with other rate cases commitment for action & analysis.)

Some Core Principles



- **Interconnection OATT is the Platform of Stability upon which all market IPP development and investment occurs.** Its reliability, stability, and sanctity, re: good faith investments made thereupon is paramount – re: future investability – as changes made: Forward- vs backward-looking. *Developers and Market* should be able to rely on OATT as per filings time stamp, no harm exposure.
- **Market benefits from participants of all shapes & sizes**, including especially small-shop developers, which bring agility, creativity, lower overhead, etc that bigger-shops & mega-IPPs don't. Keep small players viable = healthier, better market.
- **Leverage BPA's Best-in-Class & Good Existing Practices:** BPA shines on many fronts. Keep and grow the good stuff.
- **Good Projects will Eventually Win, Succeed:** Development has many facets and challenges, IX just one.
- **Ensure All Existing GIRs Get Results**, without material changes in risk, costs, burdens, study functions & features
- **Learn from Recent GI Reforms' Problems:** Not all "as advertised"
- **Don't cause harm. Don't take unnecessary risks:** 95% of benefits can be achievable, w/o *any* risk of harm, via a primary change/transition to Cluster/Batch/Group Study – bandwidth leverage – w/o any FR/FS or Readiness Criteria features/issues/risks/problems. Don't need to risk harm profile from ancillary changes.
- **BPA is Different; has Unique Issues & Concerns vs. National RTOs & Single-LSE-TOs**, re: Bilateral, PTP-Based Market on BPA Tx Backbone. Diverse Customers, competing & different goals, issues. Public Power + IOU LSEs + Power Mkt'ing + TCs. Long-term transmission contracts. TSEP processes. And non-bias for LSE ownership.
- **BPA shouldn't be in the business of picking winners & losers**, especially in not favor of IOU LSEs.

General Observations

- **There are a lot of things in current BPA Interconnection OATT + Biz Practices that work very well.**
- **Must separate “flood volume” (high demand/need) from “dysfunction” and “blame” to properly discuss solutions.**
- **In Climate Action World, volume is unavoidable.**
- **“Speculative” is really IOU-driven disparagement language directed at IPPs, competition. The only non-speculative project...**
- **Market Demand is Gargantuan**
- **Low %Capacity Factors of New NamePlate LGIRs mostly ~25-35%**
- **Projects / Bidders compete based upon their IX + TX**
- **Queue Clearing Harm Unfixable – and will only make matters worse**

Other Observations

- **Issues, re: History/Context/Backdrop of Queue Reform + FERC NOPR**
- **Readiness Criteria all have problems; not necessary nor bens > issues**
- **State Commission processes insufficient to rely on, re: IRP nexus concepts and RFPs**
- **BPA: LTF PTP contracts = LIABILITIES**
- **Real harm exposures from FR/FS, esp. in BPA market**
- **PPA / Market parties (buyers & sellers) shouldn't risk being gutted from behind, re: chutes-and-ladders risks – as signing deals, posting security, negotiating bids into RFPs or bilateral deals. (Examples)**

About Existing Queue Positions

- **Everyone in the BPA Queue Today...**
 - Filed into a Seniority-Based System*
 - Deserves fair treatment
 - Based on rules-of-the-road when filed
 - Lives & Dies in a BPA Tariff-is-King World
 - BPA's Mantra: "Have to Follow the Tariff"
 - Goes Both Ways: We rely on the tariff (...not changing!)

*Matters because it means that reforms *preserving* queue seniority have inherent fairness. It's what *everyone* understood when they wrote those checks, signed those contracts... invested in the current tariff.

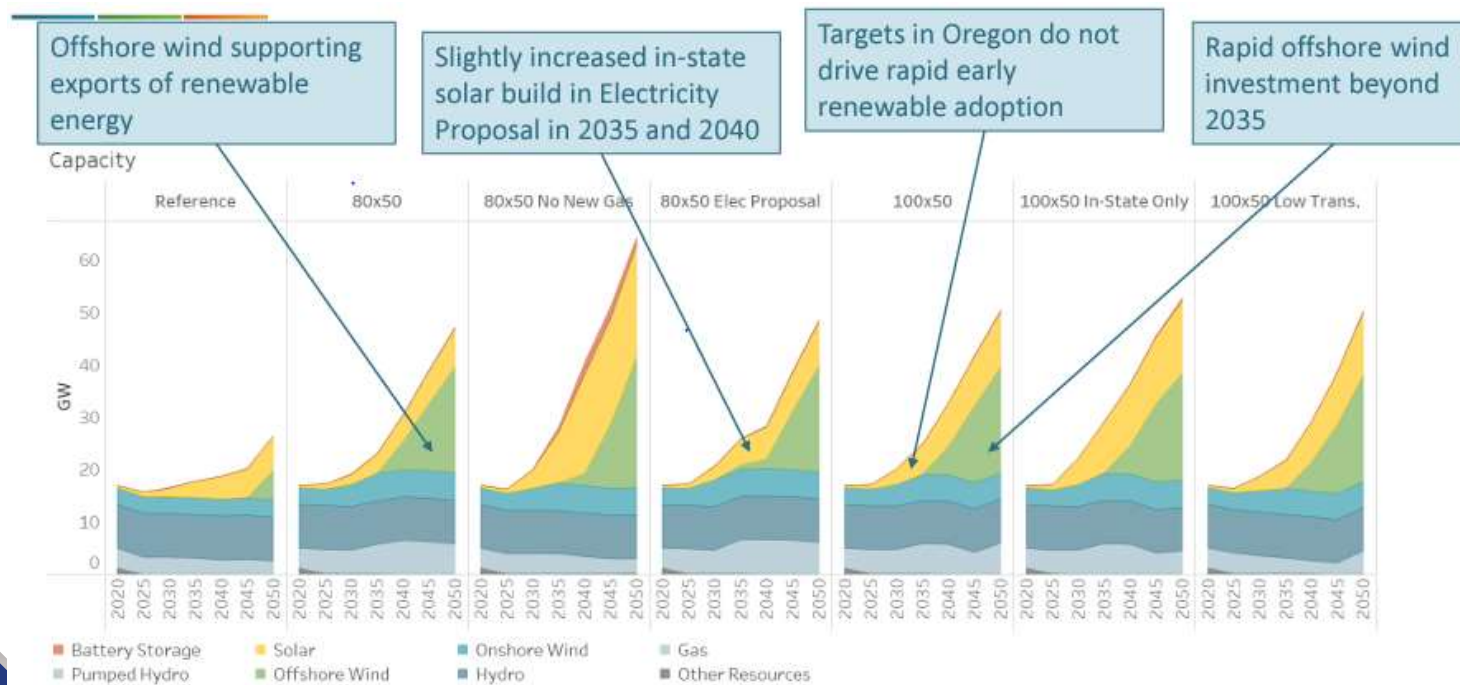
Context: Market Need

- WA CETA
- OR HB 2021 + RPS
 - IRPs just filed
 - Clean Energy Pathways Study: 40-60 GW
- New Large Industrial (GWs)
 - Divide by %CFs of solar and wind... Multiply by 3 = __ GW supply need
- WRAP
- CA Demand
- Retirements

- Net: Many, many, 10s of Thousands of MW

The Flood Volume Ain't Going Away **NewSun ENERGY**

- Just Oregon: 25-60+ GW of Gen Needed. Plus WA, UT, CA, ...



D) BPA OATT vs GI Reform Issues

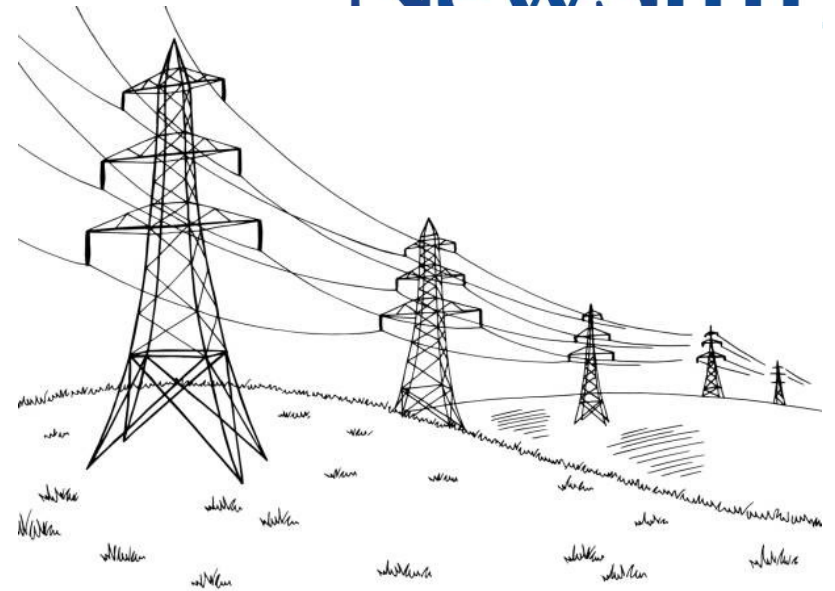
- Other GI Reforms – Misc Notes
- Kudos Due to BPA on TC-25++ Already
- Valuable BPA OATT & Biz Practice Features
 - (Also generally in FERC Pro Forma Serial Tariff)
 - Many not in “reformed” tariffs (PAC) or FERC NOPR proposal
- Issues seen in New FR/FS OATTs (eg PAC)
 - Big Problems Not “Fixed”
 - Volume Still There
 - New Problems Created
 - Functionality Lost – Undermining Outcomes

Other GI Reforms

- CAISO
- Other RTOs
- PAC (& PSCO): Single-LSE-TO
 - Not all as-advertised
 - Data not all in



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"Please submit your application and readiness Criteria demonstration for his review. If he is not satisfied in his sole discretion, Your application will be "deemed withdrawn".

"But: Anyone last name "Fox" does not need to submit readiness criteria."

CAISO – Logjams, but Successes

- **3-Phase CLUSTER Study Process – with Downsize Options**
- Active projects (i.e. in the study process, IA negotiation, or yet to reach COD)
 - **443 projects totaling 122,956 MW**
- Completed projects
 - **102 projects totaling 11,346 MW**
- Withdrawn (projects that never reached and IA or dropped out early)
 - **1,117 projects totaling 235,711 MW**

Big Deposits Didn't Fix Things

MISO:

- “... even though MISO uses a cluster study process, and requires a tiered study deposit and a readiness deposit at the time of application submission, MISO still received a record- number of applications in its 2022 application period. **There were 171 GW of new requests, a 120% increase from its 2021 cluster²** and 90% of the capacity of its existing fleet.³”

- ² MISO. MISO's Generator Interconnection Queue cycle set new record. September 27, 2022. <https://www.misoenergy.org/about/media-center/misos-generator-interconnection-queue-cycle-set-new-record/>
- ³ MISO. Fact Sheet: March 2023. <https://www.misoenergy.org/about/media-center/corporate-fact-sheet/>

Queue Clearing + Punitive Didn't Either

- PAC 1/31/20 FERC filing:
 - “As of October 2019, over 234 Interconnection Requests sit in PacifiCorp’s queue, representing over **40,135 MW**”
- PAC Cluster 2:
 - **~40+ GW** GIRs filed (plus Transition Cluster + Cluster 1)
 - *Including 9.4 GW of PacifiCorp Owned LGIRs*
 - *Including 1000s of MW of “Speculative” LGIRs,*
 - *by same standards PAC applied to claims of (in its view) problematic IPP filings*
- Re-Studies Continue
- Flood Volume Continues
- New Problems – and Incentives to Not Withdraw
- ***Converting to Cluster Did Not Require Clearing the Queue***
- Need? PAC IRP: 9,114 MW of new wind and 7,855 MW of new solar + 2-3GW nukes and peaking resources. Plus the rest of the market’s needs.

Readiness Criteria / FR-FS Issues

- For BPA – which is backbone transmission system for market – if granting special privileges to certain parties, eg IOU LSEs, then unavoidable harms to others
- Especially given mega-constrained BPA bandwidth, including Project Managers
- Power Contracting Examples
 - PPA negotiations – for IOU and Publics – for IPPs
 - PPA security; mix of statuses
- Current Market Status

Valuable FERC+BPA OATT/BP Features

The Current BPA OATT & Biz Practices contain numerous very valuable features, aspects, tools that deserve protection, help market and ICs get to better quality results, as well improve projects, solve problems, and reach more functional outcomes. ~Ditto(ish) in FERC pro forma (and orig CAISO cluster reform). *These should be protected, preserved!*

- **Quality Scoping Meetings:** Good info makes better projects
- **3-Phase Study Format:** Feasibility, SIS, Facilities
- **Alt-POIs at Feasibility:** Evaluate Better Options
- **Downsize Rights:** Multiple Options; Meaningful, Useful. At each phase.
- **Study Reports with “Break Points” information** (Fort Rock example)
- **Special Study** options
- **Queue Seniority** Benefits include clarity on:
 - Who gets existing capacity
 - Responsibility for Upgrade Cost Allocations
- **N/U Cost Allocations Methodology: Fair, Transparent, Clear**
 - Not contingent on “what your neighbor might do”
 - Some move to / live in TSEP

These features enable the market--the ICs, developers--to make better choices, solve problems themselves.

The Goal is Getting Quality Study Results, Facilitating Project Viability, Useful Paths to Success (where possible)

Table 1. Generation interconnection requests and reinforcement projects required to reach La Pine 115 kV via the La Pine-Fort Rock 115 kV line

Range	Project	MW	Total MW	Reinforcement requirements beyond project POI to reach La Pine 115 kV	Estimated Cost
0-87 MW	Outback*	5	5	Reactive Voltage Control with +/- .95 power factor capability	N/A
	G0385	15	20		
	G0387	10	30		
	G0409	5	35		
	G0410	5	40		
	G0416	20	60		
	G0431	20	80		
87-140 MW	G0521	20	100	Reactive Voltage Control Add second 115 kV 19.6 MVAR capacitor at La Pine	\$1M
	G0526	20	120		
140-200 MW	G0527	105	225	Reactive Voltage Control Add third 115 kV 19.6 MVAR capacitor at La Pine	\$1.1M
>200 MW	G0570	20	245	Second La Pine-Fort Rock 115kV transmission line (Developer)	\$3M
	G0571	20	265		
	G0572	20	285		

* Outback Solar (G0377) went online in November 2012

Valuable FERC+BPA OATT/BP Features

- **Reasonable Time Frames *for the ICs*:**
 - To process study results, respond,
 - Analyze commercial considerations
 - Arrange capital
- **Reasonable Cure Provisions**
- **E&P Availability:** Keep
- **Reasonable LGIA:**
 - Process, security, and
 - Cost payment / milestone scheduling
- **Ability to Integrate with TSEP TSRs**
- **Separate BPA TSEP process for most/major Transmission Upgrades**

Issues with GI “Reform” Backdrop

- False Panaceas
- Rate-Basing Incentives of LSEs drove some “reforms”
- “Speculative” term introduced as IOU slander of competitors.
 - The only “non-speculative” project is one by someone writing themselves their own PPA or IRP and RFP outcomes.
- Markets do not prefer 1:1 ratios of supply demand
- Cluster \neq FR/FS
- Reform justifications misleading, omissive of other context
 - Compatibility issues with merchant, public lands sited projects, etc
- Readiness Criteria: Numerous Issues
- The “Problem” not really solved (or even as claimed)
 - Notwithstanding burdensome and/or punitive features.
 - Some counterincentives and resulting dynamics opposite from desired.
- Flood Volume not Mitigated. But...
- Harm done to investments, market. Supply options destroyed, delayed; can’t be undone.

Issues Seen in New FR/FS OATTs



- **Loss of Core, Valuable Interconnection Study Functionality, including:**

- 3-Phase Study Format
- Alt-POI Evaluation
- Downsize Rights, Flex
- Bridge Interconnection Service
- Scoping Meeting Quality
- Special Study options
- Queue Seniority Clarity Benefits
- Cost Allocation Issues
- Independence from Queue Neighbors
- Study 'break points' detail

My comments here predominantly based on PAC OATT. Including experience before & after queue clearing / tariff change & now.

- Overly Jammed & Compressed & Rigid Timelines
- Dysfunctional, Impracticable Timeline Requirements
- Info Studies are ~Useless w/o Queue Seniority
- Scoping and Results Meetings Impaired by Timeline Compression + Everyone-At-Once

Example GI Case: 50 MW capacity



- Let's discuss a case example, as backdrop for what works & doesn't
- Say we have a single 115-KV line in/out of 115 KV substation
 - 80 MW capacity available on the line
- Four Developers/ICs are interested... 50 MW, 50 MW, 100 MW, 200 MW
- Discuss, How Studied in:
 - Serial Queue
 - Cluster Study
 - Seniority Based
 - No Seniority Based
- (variations, etc)

Add'l Issues in FR/FS OATTs

- **Short GIR filing windows:** Overloads Interconnecting Utility Staff with Mega-Compression, instead of spreading it around the year
- **Readiness Criteria basically bunk** – all flawed; LSE + Mega-Player biased (*see later slide*)
- **Cost Allocations w/o seniority creates “Who’s on First?” issues:** Everyone burdened; no clean or clear solutions, projects.
- **Flawed presumption of IOU Buyer-Centric Universe:** PAC built/advocated RFP = PAC = justification = privileges. Others lose + get reset buttons. Harms market options, investments, project advancement.
- **Not all as advertised!** PAC Reform: Same problems + New Problems. Even more LGIRs, but worse, less functional process for ICs & market. Re-Studies. ++ (Add slide)
- **Large deposits + punitive tariff provisions didn’t alleviate flood volume** – because mkt needs supply!
- **Buyers’ remorse** issues... Including re: RFP promises
- **Rigid Rigid Rigid.** Unnecessarily. Timelines & Criteria; LSE abuse issues: Eg, acres/MW

Readiness Criteria: All w/ Problems, Little/No Value



- **Generally (All Cases):**

- Signed Term Sheets
- Signed PPAs
- Equipment POs*
- Cash*
- Post 100%* of All N/U Costs?!

*Just not realistic, practical
Incompatible with timelines and
commercial realities
(unless you're the LSE or mega-
player)*

- **Specifically for BPA + PNW:**

- Which LSE matters more? Special privileges?
- Queue Jumping
- Multiple Deals & RFPs Ongoing Simultaneously!
- Timing Issues
- Adding Multi-State Nexuses?
- Conflicts Arise with Existing Transmission Contracts, Liabilities
- Project Manager Bandwidth
- When to Say What to Who and How?

And... even more LSE-biased/abusable

- IRP Selection
- RFP Selection
- Equipment POs
- LSE = Auto-Readiness?

• *\$\$\$: Also Balance Sheet + Rate-Base Abuse/Bias

**TOO MANY CASES!!
TOO MANY PROBLEMS!!
Don't touch it.**

Who-Plays-God vs. Platform Neutrality



- Unavoidable problems if certain parties granted special rights & privileges (chutes & ladders)
- Consider Various Examples & Situations
- BPA supports *dozens* of counterparties
- *Which LSE is “most important”?*
- *What about non-utility LSEs?*
- *What happens when various parties simultaneously negotiating with other various parties for generation / supply deals? No single point of reference. Non-synchronous. Can’t be sync’d.*

What if LSE-X signs deal with IPP-7, while LSE-Y negotiating with ESS-Q that’s negotiating with Developer-G? But IPP-5 relying on interconnection capacity on same T-Line as it signs a PPA and posts \$50MM cash to LSE-Z, but then LSE-X tells BPA first that it signed a PPA, but also LSE-W named another project on the same line in its IRP plan, and LSE-V selected IPP-4 on its RFP shortlist. But an earlier developer IPP-9 from TSEP-2-Years-Back signed LTF PTP TSAs, but now their interconnection schedule is delayed (or removed?), but they were also in negotiations with Public-99 that is trying to bring a new 250 MW load online, with the help of ESS-P, but schedule priority or viability affected by other IOU/LSE.

Hey BPA, mind sorting that out?

- Best Solution: BPA shouldn’t touch that with a 10 foot pole (or with a 100-mile gen-tie? (haha))
 - Litigation Exposures
 - Conflicts
- Avoid Chutes-and-Ladders & Who-Plays-God Issues

Examples of Who-Plays-God Issues



- **Readiness Criteria claim to Proxy for “Real-ness”**
- **But all Readiness that rely on IRPs, RFP selection, or being a LSE have numerous Fatal Flaws.** Abuse Issues.
 - Misplaced outsourcing of “realness certification”
 - To IOUs and Processes they Dominate
 - Insufficient regulatory scrutiny for IRP inclusion
 - Too much IOU discretion
 - IOUs aren’t the whole market!
- Particularly in the context of BPA as Administering Numerous Competing LSEs, ESSs, IPPs, etc: Monkey-in-the-Middle
- Flawed *even* in Single-LSE-TO case
- A nightmare with BPA’s dozens of players contending



Readiness Criteria Flaws: Ill-Based

- **LSE owned/developed?**
 - IOU biases
 - Anyone remember why we have an OATT in the first place??
- **IRP Inclusion?**
 - Essentially unilateral by IOUs. Eg PAC IRP.
 - Not all LSEs have IRPs, especially publics
- **RFP shortlist?**
 - So low-ball bids dictate the market and create chutes-and-ladder advantages and ability to kill your competitors?
- **Mega Cash?**
 - So only the big players & mega balance sheets win? Not good for competition
 - Should BPA be collecting
- **Equipment Purchase Orders?**
 - How many years in advance am I signing a purchase order??
 - Distortions for balance sheet
- **Signed PPAs:**
 - So you get your study results and have 30 days? 60 days? 120 days
 - Completely inconsistent with

Readiness Criteria Flaws: Admin/Practical

MEANWHILE:

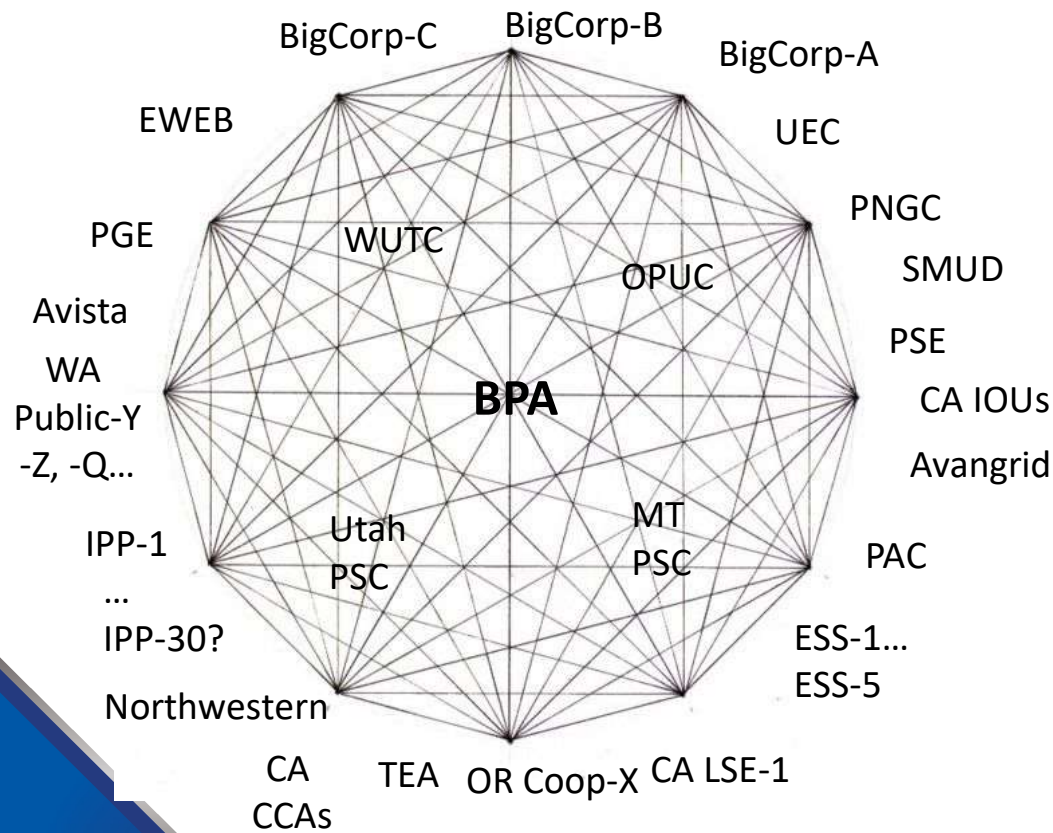
- **BPA would have to administer all this:**
 - Collect, examine, adjudicate, scrutinize
 - Cure periods, questions, complexity
 - Refunds, disputes...
 - Should BPA be collecting BILLIONS of \$\$\$?
- **Monkey-in-the-Middle meets Who-Plays-God?**
 - *Timing issues... RFP cycles, IRP cycles, ...*
 - Which state's process governs? What about non-reg?
- **Must have reasonable time frames for all of it.**
 - Timelines must reasonable for PPA negotiations or RFP timelines
 - To run financial models, to negotiation with counterparties
 - But those aren't study timeline compatible. 30, 60, 90 days?
 - PAC's are NOT commercially realistic.
- **Amplifying Queue Removals amplifies Market Chaos**
 - And Re-Studies...
 - and Chaos: Undermining Deals
 - Displacing projects that may otherwise be high quality, deserve ability to compete
 - **Harms the Market**

Hey BPA: "Wanna review a few hundred PPAs, term sheets, purchase orders? And then argue about them?"

Remember: The Flood Volume is not going away.

So what processes, workload, compressions, etc are you creating to get what outcome?

Now with dozens of players And all tossing their own balls



Who needs power supply and interconnection?

- Not just the IOUs
- Not just the regulated
- Not just those with RFPs
- Not just those with IRPs
- Not just LTF P2P Holders
- Not just Non-Merchant

Bilateral, diverse market

Or is it Dodge Ball with BPA in the Middle?

Another Analogy: Non-Friction Traffic



- **The Idea that we should just wait for only the real “ready” stuff is a lot like saying:**
 - *"Let's fix LA's traffic by removing the cars from the freeway that aren't going anywhere important... Then when everyone gets back on... We'll all push our gas pedals at the exact same time..."*
 - Then Presto! No more traffic jams!
 - “Ready?! ... 1, 2, ...”
- **Wait: Who decides whose car trips (market entrepreneurship) is “more real” or “more better” than someone else’s?**
 - Wait, I was already going somewhere... ?!
 - Sorry, you, you, you, off you go... Come back when you’re real.
 - Now, everyone who’s friends with anyone last-named “Fox” (or very rich)... You can get back on...
 - Sounds a lot like the Soviet Union
 - Or we could let the market decide –
 - And just provide a neutral platform:
 - Like the Interstate System -- like the Internet.



Recommendation: No Readiness Criteria.

This isn't the problem needing fixing. Keep it Simple.

Get us our studies.

Hopefully faster. Focus on improving “processing throughput”

Let the market compete.

Including based on our Interconnections. Alongside other factors.

Keep BPA neutral.

Don't create distortions that tip scales, create harm (or its risk)

Not needed, counterproductive. Too many problems.

Low yield (or worse); high risk; not fair or equitable

Adds long-term litigation risk – and risk for TC-25 Rate Case litigation. For nothing (or worse).

A mess BPA doesn't need to touch, *shouldn't*.

Other Good IX Stuff BPA's Doing

- TSEP Success / Miracle
- Secondary Capacity Model
 - Studies
 - Interconnection Facilities / Upgrades
- Hiring Engineers
- Master EPC Agreement for Interconnection Builds
- Statistics, Analysis, Listening, Researching: How to Be Better
 - Thoughtfulness is Evident: Thank You.

Section 3: Recommendations and Strawman Proposal



- A. Core Features & Recommendations
- B. Transition Process: Triaged
 - A. Finish Serial – through XYZ
 - B. Triaged/Sub-Clustered Transition Cluster
- C. TSEP Pause “Catch Up Year”
- D. Do’s & Don’ts
- E. Discussion of Features

Do No Harm Approach
Work through Existing Queue Fully
Triaged Transition Process
Converting to Future Cluster-Based
Leverage & Preserve Existing BPA ‘Good Stuff’
Enable ICs/Mkt to Self-Solve
Stability & Investability, with Improved Throughput

Strawman Recommendations



Transition* to: Cluster-Based Study Format (Group/Batch; not FR/FS)

1. **3-Phase Study Format**
2. **Queue Seniority Based (like TSEP)**
3. **Cycles/Windows: Alternating GI & TSEP Cluster Years**
 - a) Biannual Kick-Offs
 - b) ALT: Rolling with Continuous Sub-Clusters Progress
4. **Allow Sub-Cluster Areas to Advance Independently**
5. **Year-Round Applications & Scoping Meetings**
6. **“Pause Button” option**
7. **TSEP “Catch-Up Year”**: Take a Year Off for TSEP for 2023-2024 Cycle; fbo:
 - GI Studies + Better-Job-on-Current-TSEP + Catch-Up on Prior TSEP+ Projects
8. **Preserve & Protect Current Queue Positions’** primary OATT terms & viability
9. **Post-TC25 BPA actions/commitments**: Staffing & Other(?)

Triaged Transition Process

- **#1: Everyone Gets Studied – All the Way Through**
 - *Preserve & Protect Current Queue Positions' existing primary OATT terms & viability*
- **Triaged Transition Approach: First Triage/Cut: Serial till Clusters**
 - Cut 1: Serial Transition Group vs Clustered Transition Group
 - Cut 2: Triaged Remainder to Study-by-Sub-Clusters, till all done
- **Find Breakpoints**
 - Mix of Time Stamps and Study Status
- **Triaged Transition Cluster:**
 - Can break up existing queue ("triage") into "solvable" groups
 - Transition Cluster A,
 - then B, then C
 - with geo-sub-clusters
 - BPA can evaluate natural breakpoints, in queue-time and/or line/grid capacities
 - Work through all in sequence batches
 - Avoids the unsolvable
- **Sub-Clusters:**
 - Geographic
 - Time-Stamped
- **OPTION:** IC Ability to Drop Back to Next Transition Sub/Cluster
- **It'll take a while, yes. But all solutions do.** And ensures all comers treated fairly, work through in order, in a manner that actually gets maximally usable results for as many folks as possible. (We appreciate that BPA has recognized this.)
 - Everyone who filed... filed into seniority-based system... so this is still fair.

TSEP “Catch Up Year” Proposal -

BPA’s small miracle of implementing *annual* TSEP Cluster Studies since 2016 deserves major kudos. However:

- **Impacts and consume massive portion of key BPA resources:** engineering, planning, and other critical BPA staff resources annually.
 - Same staff that are needed for many other functions and work necessary to move forward key transmission & interconnection planning, projects, analysis, coordination, design, etc.
 - Needed to work on the *implementation and optimization* of the same TSEP (and other) network upgrades identified in studies.
- **TSEP Study Methodology is Different Than Interconnection Studies:**
 - “Jumps” to Build Enough for Entire Queue at First Shortfall
 - Unless! Prior Interconnection Studies (or Time) inform alternatives
 - IX Studies take time to examine more details: breakpoints, alt POIs, local system constraints
- **TSEP’s Annual Commitment provides Time Compression limiting BPA creativity in TSEP Studies,** and resulting Plans of Service (and therefore potential better solutions).
 - Annual commitment is NON-Tariff. Commendable (until now), but not binding.
- **TSEP’s own efficacy thus also depends on *Interconnection Studies* being *completed*.**
 - BPA now out past its skis on prior interconnection studies – due to queue backlog
 - TSEP studies *need* Interconnection Studies to color in key knowledge, provide better solutions
 - I.e. More granular solutions vs. Mega Builds Only
 - Examples: Fort Rock Studies (see earlier slide)

TSEP “Catch Up Year” Proposal - 2



- **Most Important TSEP (and Market) Goal *Today* is: That *Current* TSEP Cycle does Best Job Possible.**
 - Current TSEP is “end of the world” given queue volume = mega, mega upgrades
 - No point rushing to nowhere
 - Less important to get to “next TSEP” *than* better solutions “this TSEP”
 - Better to Take More Time, Rather Than Rush to Next TSEP
- **Current TSEP (20 GW?): Will be \$Bs of Projects + 10-20 Year NEPA**
- **“Next TSEP”**
 - **is Limited in Quality By Interconnection Studies Backlog**
 - Which limits usefulness of results – and likelihood of actionable
 - **Is Likely All Mega Upgrades Anyways**
 - If everyone gets 500 KV upgrades with 15 year NEPA (likely 2023 result anyways)...
 - What’s the rush? Vs. Better Job on Current TSEP
 - **Is Not Thus Top Priority.**
- ***Why the rush? Vs. More Useful Outcomes with BPA’s Limited Resources***

TSEP “Catch Up Year” Proposal - 3



- **Recommendation: Decide “Today” to Skip 2023-24 TSEP Cycle**
- **Instead: Use additional time (compression relief) to:**
 - **1) Enable BPA’s team to do the best possible job in Current TSEP, go the extra mile in creativity, solutions, analysis.**
 - BETTER, MORE ACTIONABLE RESULTS IS MORE IMPORTANT than RUSHING to an ill-fated next TSEP cycle. Practical reality of current TSEP queue volume limits urgency.
 - **2) Free up resources to work on Interconnection Study Catch-Up work:**
 - Bandwidth for Interconnection Studies will Help Core Issue HERE
 - IX Studies’ completion then better informs next TSEP

GI Reform “Do’s”

- **Platform Neutrality**
- **Facilitate IC-Driven Solutions & Dynamics**, including:
 - Protecting downsize options/rights, multi-phase, quality study detail to inform decisions, transferability, project adaptability
 - Avoid punitive provisions that distort behaviors; ICs shouldn’t end up with perverse incentives
- **Keep Current BPA “Good Stuff”**, including:
 - Seniority Based Queue & Studies
 - Studies with Breakpoints for Upgrades
 - Downsize Rights at Each Step
 - Reasonable Deposits
 - Non-Punitive Practices
 - Reasonable Response Times + Cure Rights
- **Leverage Proven BPA Practices where Possible** – Don’t Invent New Wheels Unnecessarily.
 - TSEP is already a Seniority Based Cluster
 - Already allows different geo-areas to proceed independently (of other geo areas)
- **Focus on High Yield First.**
 - You get 90% of Benefit from Cluster/Batch/Group processing.
 - Skip/delay/caution/later on messier and lower-yield issues.

GI Reform “Don’ts”

1. **No Readiness Criteria**
2. **No Queue Clearing**
3. **No FR/FS**
4. **No Fixed Annual Cycle**
5. **No Limited Application Window** (Accept GIRs year round)
6. **No Excessive Financial Burdens**
7. **No Withdrawal Penalties** (or other punitive measures)
8. **No Chutes-and-Ladders**
9. **No Special Privileges for LSEs**
10. **Don’t take & hold massive cash and security for years & years in advance of usability.**
11. **Don’t duplicate in GI process what TSEP handles too, re: N/U \$\$ and process**

Cluster Study Benefits + Notes



- **Mega-Benefit:**
 - Better Utilization of Engineering (and Other BPA) Bandwidth
 - *“efficiencies of studying multiple interconnection requests together...”*
 - Can process lots at the same time –
 - Fewer reports written, fewer single studies
- **Cluster Studies can still keep Queue Seniority.** Examples:
 - CAISO
 - BPA TSEP
- **Cluster *Does Not Mean, Does Not Require* “First Ready, First Served”:**
 - FR/FS ≠ “Cluster” ≠ “FR/FS”

Seniority-Based Benefits

- **Clarity on**
 - Who benefits from available existing capacity
 - Who carries which upgrades & costs
 - How costs are allocated
- **Mitigates No-Viable-Solutions Study Results Issues** in FR/FS with “No-Seniority” Cluster OATTs
- **Each IC is not dependent on co-cluster participants decisions**
 - Unknowability Issues
 - Your costs depend on the other guy’s costs. *How to decide??*
 - Particularly problematic when major upgrades triggered, spread across all sub-cluster participants: No one should proceed.

Queue Clearing Harm



- **Don't get the time back**
- **Flood volume is coming back**
- **But:**
 - **Market loses options. Market loses time. Climate Action loses time.**
 - Investments & developments harmed
 - Clocks have to restart – from *later*.
- **Better to finish studying all comers, per good faith investments.** See GIs through to market.
- Including b/c many are out competing, bidding, developing, solving problems, creating market supply – investing per OATT
- **Example of PacifiCorp:**
 - Queue cleared by PAC. 1000s of MW lost.
 - Now even more in Queue than before Clearing!!
 - Developments/projects destroyed and/or restarted. Much \$\$\$ lost.
 - Meanwhile Market *Need* Exploded – and now fewer mature options available to serve market need... to *compete*... to offer solutions.
 - More Harm than Good
 - Wasn't compatible with merchant, public lands, and other issues.
 - Added other dysfunction and harm to market / interconnections in new OATT



Section 4) Questions?

- Thank you for the opportunity to present and discuss with BPA and other stakeholders