

Resource Adequacy Engagement Workshop

November 19, 2021

9 a.m. to 11 a.m.



Agenda

Time	Topic	Presenter
9:00 – 9:10	Safety Moment and Introduction	Rachel Dibble
9:10 – 9:40	BPA Stakeholder Engagement Plan	Briana Allen
9:40 – 10:10	Questions & Considerations	Panel: Rachel Dibble, Eddie Elizeh, Briana Allen
10:10 – 10:40	Annual Assessment Data	Steve Bellcoff
10:40 – 10:50	WRAP Updates	Rachel Dibble
10:50 – 11:00	Q & A and Next Steps	Rachel Dibble

Safety Moment and Introduction

Rachel Dibble



Prepare Your Car for Winter

Besides checking the weather, it's important to have a mechanic check the condition of the following vehicle systems before heading out on the road:

- Ignition
- Brakes
- Wiring
- Hoses and fan belts
- Spark plugs
- Air, fuel and emissions filters, and PCV valve
- Distributor
- Battery
- Tire wear and air pressure
- Antifreeze level and freeze line

BPA Milestones – 3A Engagement

Close Out Phase 2B/ Phase 3A Implementation Planning	BPA Customer Engagement	Decision on Non- Binding Forward Showing	Non-Binding Forward Showing Winter (2022/23) and Summer (2023)	Decision on Binding Phase (Fall/Winter 2022) and BPA Customer Engagement
<ul style="list-style-type: none"> •BPA Staff/Executive resources participate in WRAP Workgroups •Finalize Phase 2B deliverables •Develop implementation plan for Phase 3A •NWPP hires Program Operator 	<ul style="list-style-type: none"> •July 29 – Share BPA perspective on program details and implementation issues •Aug 20 – Publish draft letter to the region (Aug 20-Sep 3) •Aug 25 – Public meeting to provide clarification on issues in draft letter 	<ul style="list-style-type: none"> •By September 30 - Final letter to the region with decision on participation in NBFS phase of WRAP program 	<ul style="list-style-type: none"> •Complete program and governance design •Submit data for detailed modeling to establish Resource Adequacy value and PRM •FS submittal to Program Operator <ul style="list-style-type: none"> • March 15, 2022 for Winter • October 15, 2022 for Summer •Refine design/modeling requirements based on continued learnings •<i>Continue engagement with BPA customers/ stakeholders</i> 	<ul style="list-style-type: none"> •Public Process - BPA customer review and input prior to decision •Consider lessons from NBFS and program/governance design •Evaluate ability to meet BPA’s WRAP Participation Principles

NBFS = Non-Binding Forward Showing

Western Resource Adequacy Program Participation Principles for Binding Program

1. BPA's participation is consistent with its statutory, regulatory and contractual obligations.
2. BPA will maintain reliable delivery of power and transmission to its customers.
3. BPA's participation is consistent with a sound business rationale.
4. BPA's participation is consistent with the objectives of Bonneville's Strategic Plan.
5. BPA's evaluation of WRAP participation includes transparent consideration of the commercial and operational impacts on its products and services.

BPA Stakeholder Engagement Plan

Briana Allen



BPA Approach to Engagement

- To the extent possible, provide transparency of program design updates and information that may impact **BPA's business case** for binding program participation decisions. Engagement will be **consistent with other WRAP engagement** outside of BPA's process.
- Enable effective and efficient **two-way communication** between BPA and customers, stakeholders, and other interested parties.
- Engage on a **predictable, standardized cadence** to the extent possible provided there is adequate content or relevant information to discuss.
- BPA will be **accountable for ensuring engagement opportunities** occur sufficiently to inform interested parties based on program timelines and information availability and applicability.

BPA Engagement Plan

Phase 3A Engagement Workshops

- **Scope:**
 - Focus on discussing program design updates and impacts to BPA and its customers
 - Outcomes from BPA's participation in the non-binding forward showing program activities
 - Resolving open questions and key considerations in order for BPA to make a well informed decision on participation in Phase 3B
- **Bi-monthly workshops focused on information sharing**
 - Topics will align with program milestones and information availability
 - Planned workshop topics are determined in advance and meeting materials will be posted on the BPA Resource Adequacy webpage
 - Inviting comments following each workshop (two-week comment period)
- **BPA to manage a [“WRAP public considerations”](#) tracking spreadsheet**
 - Posted on the BPA Resource Adequacy webpage

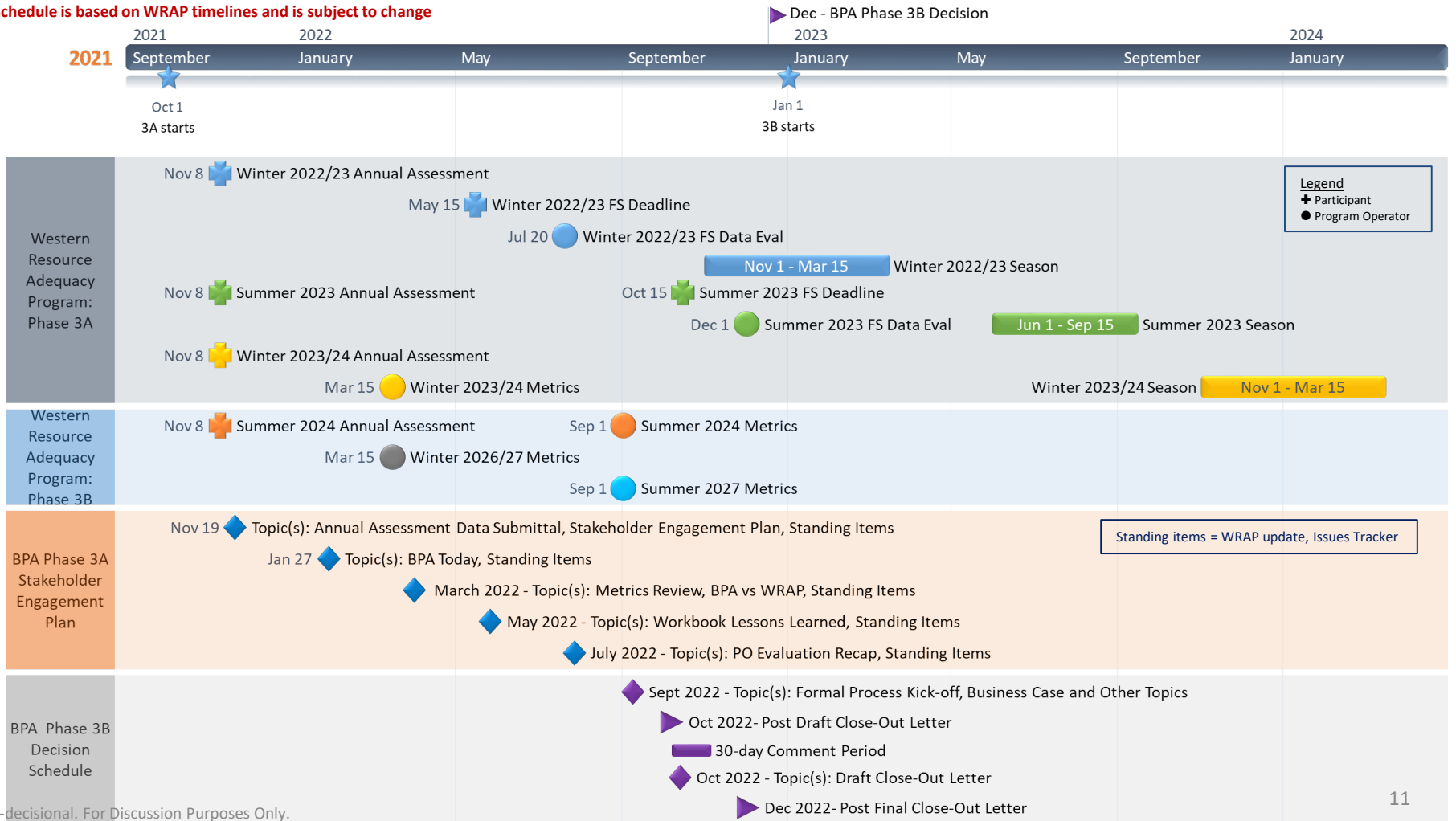
BPA Engagement Plan

Phase 3B Decision Process

- **Scope**
 - Resolving open questions and key considerations in order for BPA to make a well informed decision on participation in Phase 3B
 - Focus on BPA's business case elements and draft decision
- **Minimum of two public meetings focused on participation decision**
 - Topics will focus around BPA's participation principles for the binding program decision
 - Planned meeting topics are determined in advance and meeting materials will be posted on the BPA Resource Adequacy webpage
- **30-day formal comment period for the draft closeout letter**

Tentative BPA Phase 3A Stakeholder Engagement Schedule – as of 10/22/2021

Schedule is based on WRAP timelines and is subject to change





Questions & Considerations

Briana Allen, Rachel Dibble,
Eddie Elizeh




November Topics

- Three primary categories
 - Stakeholder Engagement
 - Foundational / Fundamental
 - Transmission

Guide to Reading These Slides

Theme	BPA Response
<ul style="list-style-type: none">• High level or summarized themes BPA captured from comments/feedback.	<ul style="list-style-type: none">• BPA's response to themes or specific comments.• May have a single response for multiple comments.
<ul style="list-style-type: none">• May include specific comments as beneficial to the conversation.	



Indicates the specific comment IDs being addressed for the topic, as captured in the considerations tracking spreadsheet

Q/C#: 2, 3, 5, etc.

Guide to Reading These Slides

Considerations Tracking Sheet Example

ID#	Submitter	Topic/Theme	Question/Consideration
2	AWES	Logistics	Proposed timing of 3B decision and implementation is to flesh out rate impacts/cost allocation
3	AWES	Logistics	BPA should commit to potentially conducting a mini period prior to issuing a final decision on Phase 3B p All initial program costs and benefits should accrue may be the appropriate place in the near term.
5	NRG	Cost Allocation/Rates	LF customers only... 2026.

Q/C#: 2, 3, 5, etc.

Stakeholder Engagement

Theme	BPA Response
<p>More robust engagement process prior to 3B decision</p> <ul style="list-style-type: none">• Increased transparency of impacts• Increased transparency of customer/stakeholder questions• Timely information sharing• Identify where information will be captured	<ul style="list-style-type: none">• BPA has outlined a proposed public engagement plan in this workshop based on the WRAP Phase 3A schedule, and welcomes feedback.• Relevant information on program impacts to BPA and its customers will be captured through workshop presentations & materials, the questions/considerations tracking sheet, and/or 3B participation decision document.

Q/C#: 26, 27, 28, 31, 48, 49

Foundational / Fundamental

Theme	BPA Response
<p>WRAP should align with other regional initiatives.</p> <ul style="list-style-type: none"> • What is the WRAP Problem Statement? 	<ul style="list-style-type: none"> • WRAP alignment with other regional initiatives will depend on how those initiatives are also developed and integrated. BPA will engage with the intent of pursuing that alignment and make sure the integration meets its requirements. BPA is an active participant and not the lead/responsible entity. • See section “ES1. Background” of the WRAP Detailed Design document for the WRAP Problem Statement.
<p>Program participation should be consistent with:</p> <ul style="list-style-type: none"> • Statutory obligations • Existing power and transmission contractual requirements • Protection of fish and wildlife 	<ul style="list-style-type: none"> • BPA agrees. Meeting statutory and contractual obligations is foundational to BPA’s ability to participate and is reflected in BPA’s participation principles. • BPA follows applicable rate directives that govern current applicable rate constructs and the equitable allocation of cost.
<p>Cost allocation should be equitable to all customers and rate construct limitations should be discussed and resolution understood</p>	

Q/C#: 8, 10, 14, 30, 32, 44

Foundational / Fundamental

Theme	BPA Response
How does BPA see its role as a member of the RA Participants Committee (RAPC) and what constituencies is BPA representing in this role? What process will BPA have for representing these constituencies on the RAPC?	BPA does not represent any additional parties; BPA will evaluate whether the WRAP may, if implemented, assist BPA in meeting BPA's existing and future obligations to supply power. For example, participation allows BPA to provide input on detailed design applicable to BPA's load following product and transmission system utilizations, and any statutory obligations it has on power & transmission.

Q/C#: 8, 10, 14, 30, 32, 44

Transmission

Theme	BPA Response
<p>Program impacts to:</p> <ul style="list-style-type: none">Existing BPA transmission contractsBPA's transmission planning and operations (specifically w/the hub concept)Transmission system capacity / triggering new builds	<ul style="list-style-type: none">The WRAP design, including utilization of the Mid-C hub as a centroid, will not change existing transmission contracts, nor will it change how transmission is provided, operated, and how transmission operating limits are set.The WRAP design elements are intended to increase reliability. For some transmission customers those requirements may create the need for additional firm transmission to meet specific requirements. The WRAP has been designed to work within today's transmission operations and OATT-based sales.The Forward Showing is expected to provide situational awareness to BPA which would assist with proactively forecasting potential congestion areas and may assist BPA in working with LSEs regarding load service if congestion is expected to occur.Data on seasonality has the potential to be another tool to help with mid-term and long-term regional planning.

Q/C#: 22, 38, 42, 43, 60, 61, 62

Transmission

Theme	BPA Response
<p>Demonstrate no negative impacts to the quality of BPA's transmission service</p>	<p>BPA understands the concern about BPA's transmission service; WRAP is a Generation Capacity-based program, and does not change BPA's commitment and obligation to operate a reliable transmission system.</p>
<p>Will the RA centroid at Mid-C:</p> <ul style="list-style-type: none"> • Create increased congestion, curtailment, and NT redispatch risk and/or costs? • Impact implementation of limited hourly firm under the TC-20 Settlement Agreement? 	<p>As designed we do not believe the concerns/impacts raised in the comment will occur. The WRAP doesn't change the current scheduling practices, reservation rights in place, or the TC-20 Settlement obligations.</p>

Q/C#: 22, 38, 42, 43, 60, 61, 62

Annual Assessment Data

Steve Bellcoff



Phase 3A – Initial Data Submittal

- Purpose:

Provide the initial data that will be used in the performance of Loss of Load Expectation (LOLE) assessment, and Qualifying Capacity Contribution (QCC) assessments, including Effective Load Carrying Capability (ELCC) studies.

Storage Hydro Resources

- **Definition:**
 - Storage Hydro – hydro resource with one hour or greater of storage, not in coordination with another project.
- **QCC Methodology:**
 - Customized WRAP Storage Hydro Methodology for determining the QCC of storage hydro projects in the Western RA Program. The methodology considers 10 years of each resource's actual historic output, water in storage, reservoir levels, and both power and non power constraints.
- **Submitted Data:**
 - Project details, such as: name, host BA, ownership (or contracted Percentage), state, and county
 - Individual monthly QCC values taken that resulted after applying NWPP Storage Hydro Methodology to historical data.
 - 21 Federal projects submitted as Storage Hydro

Run of River and VER Resources

- **Definition:**
 - Run-of-river hydro (ROR) – Hydro resource with less than one hour of storage, not in coordination with another project.
 - Variable Energy Resource (VER) – wind and solar resources.
- **QCC Methodology:**
 - ELCC (Effective Load Carrying Capability) analysis of historical data performed by Program Operator (PO)
 - ELCC will be evaluated by month and by zone. ROR and VER resource zones to be defined based on climate/fuel supply (not transmission)
- **Submitted Data:**
 - Project details, such as: name, fuel type, host BA, ownership (or contracted Percentage), state, and county, summer and winter maximum capacity
 - ROR: 12 Federally owned or under contract, 11 Load Following customer dedicated resources
 - VER: Wind - 5 resources (2 Federal contract, 3 LF customer dedicated), Solar – 3 LF customer resources

Wind, Solar, and ROR Profiles

- **Definition:**
 - Wind, solar, and run-of-river profiles are the historical hour generation of each individual resource for the period starting January 1, 2010 and ending December 31, 2020, or as much of the period as possible.
 - Any information regarding discrepancies between the historic generation profile and future expectation noted, identifying the discrepancy magnitude in MWs.
- **BPA Methodology:**
 - Historical hourly generation for Wind, Solar and ROR projects.
- **Submitted Data:**
 - Actual hourly generation by resource, or share of resource (2010-2020)

Thermal Resources

- **Definition:**
 - Thermal resources – Generating resources, such as those fueled by coal or natural gas, in which heat energy is converted to electricity.
- **QCC Methodology:**
 - Unforced capacity (UCAP) analysis of historical data performed by Program Operator (PO)
 - Using six years of historical data (removing the worst performing year) for each season.
- **Submitted Data:**
 - Project details, such as: name, fuel type, host BA, ownership (or contracted Percentage), state, and county, summer and winter maximum capacity
 - 10 projects submitted (1 Federal, 9 LF customer resources)

Resource Outage Data

- **Definition:**
 - NERC Generating Availability Data System (GADS) Event and Performance data.
 - GADS Data is submitted to NERC by project owner/operator
- **Submitted Data:**
 - GADS Report Event and Performance data, 2014 – 2020
 - Hydro and Thermal resources *(where available)*

Forecasted Peak Demand

- **Definition:**
 - Forecasted (P50) one-hour Peak Demand (Total Retail Load) of the submitting Load Responsible Entity (LRE) based on a 1-in-2 forecast.
 - Values for the summer and winter seasons ranging for years 2022 to 2028. The winter season timeframe is from November 1 to March 15, and the summer season timeframe is from June 1 to September 15.
- **BPA Methodology:**
 - 1-in-2 forecast peak Total Retail Load of customers with BPA load following products
- **Submitted Data:**
 - Summer and Winter Seasonal aggregate peaks for Total Retail Load of load following customers (2022-2028)
 - Total Aggregate
 - Aggregate for 6 different defined zones (transmission based zones defined by the program)
 - Monthly aggregate peaks for Total Retail Load of load following customers (2022-2028)
 - Total Aggregate
 - Aggregate for 6 different defined zones (transmission based zones defined by the program)
 - Example of Peak Load
 - Summer 2022 Total Aggregate = 5995.7 MW, as comparison BPA LF Energy Obligation July 2022 = 3561 aMW
 - Winter 2022-2023 = 6750.8 MW, as comparison BPA LF Energy Obligation January 2023 = 3771 aMW

Hourly Load Profile

- **Definition:**
 - Historical hourly load profiles are the historical hour loads for the period starting January 1, 2010 and ending December 31, 2020, for the same footprint or load as reflected in the Forecasted Peak Demand.
 - Any information regarding discrepancies between the historic load profile and the forecasted peak demand should be noted, identifying the discrepancy magnitude in MWs.
- **BPA Methodology:**
 - Historical hourly Total Retail Load of customers with BPA load following products
- **Submitted Data:**
 - Actual hourly aggregate Total Retail Load of load following customers (2010-2020)
 - Total Aggregate
 - Aggregate for 6 different defined zones (transmission based zones defined by the program)



WRAP Update

Rachel Dibble



Western RA Program Updates

- Over 20 Phase 3A Participants
- Governance Design
 - Many issues and considerations remain for final governance design, including:
 - Board Role
 - Nominating Committee makeup
 - Committee of State Representatives Role / FERC 205 Filing Rights
 - BPA is actively engaged and evaluating alternatives
 - Seeking a balanced outcome which would not adversely impact BPA's ability to potentially participate in the binding program
 - Governance section of Detailed Design document will be reissued as a stand-alone document once completed (TBD)
- Governance Implementation
 - Program Review Committee (PRC) and Nominating Committee (NC) are being stood up over next few months and will begin executing the proposed plan
- WRAP Engagement Opportunities & More Information
 - NWPP will host quarterly public webinars beginning 2022
 - See NWPP website for the [Oct. 26 SAC presentation](#) and the latest WRAP updates @ www.nwpp.org/adequacy

QUESTIONS?

Next Steps

- Please submit your feedback @ www.bpa.gov/comment by December 3, 2021.
- Next workshop is on January 27, 2022 from 1-3pm.
- For more information on BPA's participation in the Western Resource Adequacy Program:





Appendix



Resolved Items

Resolved in 3A Final Decision Letter – Response to Comments

Comments which were addressed in the 3A Final Decision Letter and do not appear on this list are not fully resolved from BPA's perspective. For the resolution outcome of these items, please see 3A Final Decision Letter.

Comment	Question/Consideration (May be summarized)	Q/C#
#1	<ul style="list-style-type: none"> BPA must commit to working with customers to resolve these questions in advance of taking on any binding obligations related to the program (PPC) 	34
#2	<ul style="list-style-type: none"> BPA should take a strategic approach to evaluating markets and regional programs by evaluating all against developed principles and philosophies 	29
#4	<ul style="list-style-type: none"> Are there any circumstances, either in the planning or operational stages, where, by virtue of participating in the RA program, a non-preference customer would have access to the Federal system capacity before a preference customer, or would be allocated a share of that capacity pro rata? Why or why not? 	35
#5	<ul style="list-style-type: none"> Governance structure should be refined so that BPA Load Following customers have a guaranteed voice (within the Program Review Committee) to state their interests in program operation (as they cannot adequately be represented by any other entity, including BPA. 	6
#7	<ul style="list-style-type: none"> All initial program costs and benefits should accrue to LF customers. Non-slice cost pool may be the appropriate place in the near term. Consider cost and benefit pool for LF customers only for post-2028. 	5
#8	<ul style="list-style-type: none"> BPA should commit to potentially conducting a mini-7(i) process during BP-22 rate period prior to issuing a final decision on Phase 3B participation. 	3

Resolved Items - Continued

Comment	Question/Consideration (May be summarized)	Q/C#
#9	<ul style="list-style-type: none"> Timeline for final decision on binding phase 3B by fall/winter 2022 may prove difficult to meet Proposed timing of 3B decision & implementation is concerning w/o a rate case to flesh out rate impacts/cost allocation 	2, 50
#10	<ul style="list-style-type: none"> Understand how BPA is meeting its statutory and contractual obligations by participating, including preference rights of customers to energy and capacity 	46
#11	<ul style="list-style-type: none"> Has BPA studied the impacts of participating in the program post 2028? Would BPA have sufficient capacity to cover its obligations under the program if all customers change to the load-following product? 	20
#12	<ul style="list-style-type: none"> Does BPA have the legal authority to pay penalties or fines associated with its participation in WRAP and would it require any waiver of sovereign immunity? Does BPA have the legal authority to agree by contract to pay a penalty when deemed deficient by the RA Program Operator or would such an agreement be an unlawful waiver of the federal government’s sovereign immunity? 	39, 55

Additional Items Resolved in 3A Final Decision Letter

Question/Consideration (May be summarized)	Outcome	Q/C#
BPA participating in 3A is a means to gain more information about design and implementation, and impacts to BPA customers, contracts, products, and rates.	BPA reiterated this sentiment in the 3A Final Decision Letter (pg. 1), and content throughout the letter on BPA’s continued participation indicates BPA agrees.	33
Make explicit that BPA fully reserves the right to not join the binding program in the event it determines doing so will not meet BPA’s RA principles.	BPA made such statements in the 3A Final Decision Letter (pg. 2 and pg. 7)	52