



## Transmission Services

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### NT Redispatch Protocols

#### BPA Response to Customer Comments

April 10, 2014

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#### Table of Contents

1. Northern Wasco County PUD.....	2
2. Clark Public Utilities.....	5
3. Snohomish PUD .....	13
4. PNGC Power .....	14
5. McMinnville Power .....	16
6. Eugene Water & Electric Board (EWEB).....	16

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## 1. Northern Wasco County PUD

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### 1 Summary:

Following BPA's February 12, 2014, NT Redispatch meeting, NWCPUD has reviewed the proposed NT Redispatch Protocols and offers the following comments. BPA's Federal power customers already contribute to redispatch through the resources that they purchase from BPA. Additional NT redispatch may be possible if the physical methods for determining effectiveness and eligibility can be aligned with communication, implementation and settlement mechanisms. As an alternative to transmission capacity projects that take many years to construct, redispatch may provide an effective bridge solution. As BPA proceeds with this effort, it should consider running a pilot redispatch test using table-top exercises to calibrate estimated transmission loading relief with actual redispatch flow effects.

#### *Transmission Services Response*

Transmission Services is open to creating redispatch scenarios to demonstrate how redispatch provides relief and expected effects on flows. As the redispatch processes and procedures are further refined, BPA is open to potentially conducting simulations to test the redispatch processes.

### 2 Specific Comments:

#### 2.1 Attachment M Redispatch

NWCPUD appreciates that BPA explicitly recognizes that NT customers that are also BPA Power customers have a substantial portion of the resources that they purchase subject to redispatch. Other dedicated resources, that are non-Federal DNRs offered by NT customers pursuant to these redispatch protocols, are incremental to the FCRPS resources that are part and parcel of Power customers' Tier 1 purchases. The *Discretionary, NT Firm* and *Emergency* redispatch provided pursuant to Attachment M has provided unquantified value to all firm transmission customers. BPA should periodically quantify the value of these forms of redispatch for the record.

#### *Transmission Services Response*

Currently, Transmission Services posts on OASIS all costs and charges related to the provision of Attachment M Redispatch (*Discretionary, NT Firm, and Emergency*). Transmission Services will continue monitoring the usage and cost of these products. For discretionary redispatch, BPA does not have enough information on impacts to individual customers to provide a quantified value of redispatch other than BPA efficiently meeting its reliability requirements.

#### 2.2 Redispatch 101

BPA has proposed a PTDF methodology that is consistent with industry standard methods for analyzing and ranking the effectiveness of redispatch candidates for transmission loading relief. The Draft Protocol document, however, does not explicitly state how "effectiveness" is determined. The effectiveness methodology should be included in the Protocol document explicitly or by reference.

#### *Transmission Services Response*

Transmission Services has revised the effectiveness and dispatchability criteria within the draft protocols document in response to this comment.

## 2.3 Eligibility Criteria

NWCPUD finds that BPA proposed eligibility criteria, *Effectiveness & Dispatchability*, *Controllability* and *Cost*, are appropriate for the initial implementation of NT redispatch. It is likely that the criteria will need to be fine-tuned as experience is gained with resources brought into the redispatch pool with these criteria. NWCPUD is concerned, however, that the table on slide 13 and C.4. of the Protocol may imply that a Market Purchase DNR would always be able to provide DEC redispatch. Whether redispatch can be provided by a Market Purchase DNR would likely be subject to explicit special conditions between the seller and purchaser in their Power Purchase Agreement. If redispatch provisions are not included by the parties to the PPA, it should be assumed that the resource is not dispatchable and does not meet that eligibility criterion. Furthermore, NWCPUD presumes that most *Dedicated Resources* will be purchased at 100% capacity factor profile (effectively base load) in order that they meet the conditions prescribed in the description of such Dedicated Resources in their Regional Dialog contracts. If a different profile is desired by BPA Transmission Services, customers will need assurances from Power Services that Unauthorized Increase (UAI) penalties are not charged to the customer if a resource is redispatched by Transmission Services.

### *Transmission Services Response*

Transmission Services recognizes the unique challenges with redispatching market purchases. If these market purchase DNRs are redispatched in the proposed manner (providing DEC capacity), the customer will be kept whole financially. Deliveries of similar purchases are curtailed during congestion events (whether on non-firm PTP, Firm PTP, or Non-Firm NT) to provide the necessary relief. Under NT Redispatch the customer will be kept whole financially for providing relief through the curtailment of the e-Tag associated with the market purchase.

Transmission Services and Power Services are working to ensure NT customers are not penalized under their Regional Dialog contracts as a result of the redispatch of designated Network Resources (DNR). BPA will share the procedures with NT customers who have Regional Dialog contracts listed as DNRs prior to BPA filing with FERC.

## 2.4 Informational Requirements

The list of information included on slide 14, and section D of the Protocol, appears sufficient for BPA's intended purpose. Nevertheless, customers with eligible DNRs will need to actively manage this information and will need an efficient interface (e.g. automated portal, API or other) to ensure that current values are presented to BPA dispatchers. Nearly all of the information required is subject to change at least hourly. For the redispatch system to be successful, accurate customer information is essential. If third parties are involved, such as when a Market Purchase is offered, the information exchange may involve even greater complexity and multiple parties.

### *Transmission Services Response*

Transmission Services is working on identifying an effective interface to receive accurate customer information and will have further customer discussions on the method and the frequency of information submission. Due to the anticipated infrequent need for NT Redispatch, the intent is to manage the receipt of accurate information while minimizing the administrative burden on customers.

## 2.5 Compensation Mechanism

The proposed compensation mechanisms are internally consistent with theoretical approaches to pricing INCs and DECs, but some of the embedded assumptions may lack the foundations needed to settle redispatch trades at the conclusion of each month. First, the reliance on index prices may be problematic in some instances. Hourly price indexes may have null or questionable values if trading volumes were insignificant or index surveyors were unable to acquire sufficient trading data. This will primarily affect hydro generation redispatch because no actual cost metric is proposed. For thermal generation, consideration of opportunity cost should probably hinge on whether a trading volume threshold has been met as reported by the index publisher for the hour considered. Otherwise, actual costs should be relied on if market prices are insufficiently robust. Should a congestion event and subsequent redispatch be needed during a period of market dysfunction, reliance on market index prices would not be appropriate.

More focus on the values proposed for compensation should be part of the next round of discussion and comment on NT Redispatch. The objective must be to quickly settle redispatch transactions at just and reasonable prices.

### *Transmission Services Response*

Opportunity costs for NT Redispatch compensation will be based on the index BPA is currently using for Transmission billing purposes (BPA's Transmission Rates Schedule cites "an hourly energy index in the Pacific Northwest"). Transmission Services will modify the draft protocols in response to these comments in order to compensate for either opportunity cost as determined by the index or actual cost for Hydro DNRs. The compensation of actual cost will mitigate the concern that the Powerdex index may not truly reflect cost.

## 2.6 Communicating NT Redispatch Requests

Given the short timeframes required for congestion relief, reliable and robust automated methods for implementing redispatch should be the goal. NWCPUD is not familiar with iCRS based signals. ICCP based controls are based on industry standards and should be effective for generators equipped for that mode of control. The OATI Dynamic Scheduling System (DSS) uses ICCP-based controls and feedback that has demonstrated capabilities to manage tagging and dynamic profiles as an integrated system.

Nevertheless, Load Following customers need assurances that Dedicated Resources associated with their Regional Dialog contracts are subject to control that is consistent with their contracts with Power Services.

### *Transmission Services Response*

Transmission Services intends to implement a reliable and automated process for requesting and providing NT Redispatch. In communicating a request for NT Redispatch, Transmission Services does not intend to exercise control over the generating resource. Rather, the intent is to send an automated request to the resource operator or control center and the entity controlling the resource will decide how to respond to the NT Redispatch request.

NWCPUD is concerned that DEC redispatch via e-Tag curtailment could adversely impact customers that have made market purchases for Dedicated Resources associated with their Regional Dialog contracts. See UAI concern in 2.3 above. It is not clear that the "INC from another DNR" would be recognized by BPA Power Services as a resource consistent with the customer's Dedicated Resource obligations. Similar concerns apply to Off-System DNRs. Ultimately the customer and BPA must be able to make consistent after-the-fact determinations to settle redispatch implementations.

### **Transmission Services Response**

Transmission Service is currently working with Power Services to identify all the products impacted and ensure that charges are not inappropriately assessed as a result of the provision of NT Redispatch, including the UAI charges and any other charges under Regional Dialogue contracts. The intent is to financially keep whole the NT Customer providing NT Redispatch from designated Network Resources.

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## **2. Clark Public Utilities**

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Clark Public Utilities (Clark) appreciates the opportunity to submit comments on BPA's proposed NT Redispatch protocols. These comments will reference the proposal discussed during the public meeting held on February 12, 2014. Maintaining firm and reliable transmission is of the utmost importance to Clark as it is an essential part of serving our customers' needs and keeping the lights on. Historically, BPA has relied on redispatch of its Federal hydro resources as the means of providing NT redispatch pursuant to its Tariff obligations. Such coordination between Power Services and Transmission Services is currently documented in Attachment M to BPA's tariff. BPA is proposing to include non-Federal designated network resources (DNRs) in its NT redispatch program in addition to Federal resources. BPA has stated that the reasons for revising the NT redispatch policy at this time are due to BPA's efforts to more fully implement its Tariff obligations consistent with FERC's pro forma tariff model and the decreased ability for the FCRPS to provide NT Redispatch.

In light of BPA's desire to revise the NT redispatch policy to include non-Federal DNRs, Clark encourages BPA to undertake a more holistic revision to its NT policies and recognize the importance of ensuring that NT service *as a whole* meets the standards of reliable and available service contemplated under FERC's pro forma tariff.

### **Overall Process for Enacting the Expanded NT Redispatch Protocols**

Clark recognizes that some changes to BPA's Tariff may be necessary to reflect the updated NT redispatch protocols. However, rather than filing those changes immediately with FERC, Clark asks that BPA first initiate a comprehensive review of NT service and wait to file any potential Tariff revisions at FERC until NT service can be holistically evaluated and modified to ensure comparable service with PTP customers. Upon completion of this endeavor, BPA will be in a position to submit a comprehensively revised Tariff filing at FERC, rather than doing so piecemeal.

Clark notes the length and depth of the BOATT I and II processes where BPA and customers comprehensively addressed a myriad of issues relevant to improving PTP service. Clark also notes that a number of modifications have been made to PTP service that deviate from the pro forma tariff. In order to provide comparable service to NT and PTP customers, BPA needs to undertake a similar holistic evaluation of NT service, and make any needed changes to its current practice.

Having said that, these comments focus on the narrow scope of BPA's proposed revisions to its NT redispatch protocols. Clark's comments fall into the following general buckets: (1) principles for NT redispatch and (2) specific comments on BPA's proposed protocols.

## Principles for NT Redispatch

BPA has stated that it aims to develop new protocols that achieve the desired result of expanding the pool of eligible DNRs in the most streamlined and least burdensome manner. Clark strongly supports this principle, particularly in light of the relatively infrequent historic need for NT redispatch.

One useful mechanism for ensuring a smooth and streamlined process may be for BPA to develop a matrix checklist that can be used for each DNR. This matrix would include the eligibility criteria which would first determine whether a particular DNR is eligible to participate in NT redispatch. If eligible, then the matrix should contain the following information based on a comprehensive discussion between the customer and BPA: operational constraints of the resource, communication protocols, cost calculations and pricing information, and any other relevant and needed information for purposes of implementing NT redispatch for that particular resource. This would allow for an orderly and standardized collection of resource information to ensure that customers and BPA are in full agreement on expectations and operating constraints. This matrix should be included in the individual customer's NT Service Agreement as an Exhibit or as an amendment to an existing Exhibit (e.g., as an amendment to Exhibit C, the Network Operating Agreement). This document would be executed by both BPA and the customer which would ensure both parties understand and agree to the nuances of NT redispatch with respect to that particular DNR.

### *Transmission Services Response*

Transmission Services agrees that a matrix of this nature could streamline the process and reduce future administrative burden of identifying resources and resource-specific provisions related to NT Redispatch. As suggested in Clark's comments, BPA will consider where to include such a matrix to note the necessary information and will discuss with customers at an upcoming meeting.

## Specific Comments on BPA's Proposed NT Redispatch Protocols

Please find below Clark's specific comments on BPA's draft NT Redispatch Protocols which reference the sections within the draft document posted online.

### Sections A.-C. Eligibility Criteria for DNRs

Clark supports BPA's proposal to institute eligibility criteria to determine which DNRs will be subject to NT redispatch. The predetermination of which DNRs will be included in the pool of eligible resources for NT redispatch will provide the following benefits: clear understanding by both customers and BPA of which DNRs are eligible; the ability for customers and BPA to discuss the unique operating characteristics and constraints of eligible resources, establish communication protocols and guidelines for redispatch, and specify which types of costs may be included in the cost calculation; and allow BPA to know which DNRs may be available for NT redispatch and how they may relieve congestion. This information should be included as an amendment to the customer's NT Service Agreement, perhaps via the matrix checklist approach described above.

Regardless, it is imperative that BPA and its customers clearly document which DNRs are eligible and, for those that are eligible, clearly define and describe all relevant operating characteristics and potential cost exposures. This documentation should be signed by both BPA and the customer. This approach will help streamline the revised NT redispatch

protocol and will allow BPA and customers to have a common and mutual understanding of each DNR's eligibility and unique operational constraints and characteristics.

### **Transmission Services Response**

Transmission Services agrees that it is important to document which NT Customer DNR is subject to NT Redispatch and any related resource-specific information. The agreed-upon document should be signed by the impacted parties. Transmission Services will work internally to develop a matrix approach suggested by Clark PUD and will review the matrix with customers at an upcoming customer meeting.

In addition, Clark offers the following comments on each section:

- A.1. Effectiveness and Dispatchability - Clark supports this criteria as drafted
- A.2. Controllability - Clark supports this criteria as drafted
- A.3. Cost - Clark supports the need for cost effectiveness and suggests that any upgrade costs should be borne by BPA, not the customer and not NT customers as a group, given that these constitute reliability upgrades.

### **Transmission Services Response**

Regarding comment on A.3, the cost criterion refers to the installation of equipment necessary for the communication of NT Redispatch requests. If installation of equipment is costly, the resource would not pass this third criterion. Nevertheless, BPA is considering the use of existing tools which all resources in the BPA Balancing Authority Area (BAA) already have installed or have access to (such as iCRS) in order to communicate NT Redispatch requests. In that case, if iCRS is the ultimate tool used to communicate NT Redispatch requests, the A.3 cost criterion will be removed from the evaluation.

- B.2.(a) - Clark supports the exemption of "baseload" resources (as demonstrated by historic use with minimal variation in generation levels across a 24-hour period) from providing NT redispatch. As an example, Clark's River Road Generating Plant serves as a baseload resource serving Clark's loads. This resource is run at maximum capacity and, therefore, has no ability to INC. This type of exemption is a good example of what should be contained within a matrix documenting each resource's specific operating characteristics and constraints and should be included in an amendment to the customer's NT Service Agreement.
- B.2.(b) - Clark supports the exemption of resources where "moving the resource (INC or DEC) in any manner outside of its normal operating parameters/curve **would** damage the plant or cause it to violate operating/regulatory restrictions." *[emphasis added]* However, instead of the word "would" (underlined above), BPA should use the word "could," as this better conveys the idea of the potential for plant damage by operating outside of normal operating parameters. Further, these parameters, exemptions, and/or any limitation on the amount of INC/DEC the resource can provide need to be specifically articulated in customer-specific documentation via an amendment to the NT Service Agreement.

### **Transmission Services Response**

In regards to the comment on section B.2.(b), Transmission Services will change the word "would" to "could." However, the customer will be required to provide documentation

to demonstrate that responding to NT Redispatch over a period of time could damage the plant.

- C.1.-C.5. - Clark supports this generic list of types of resources that may be included in NT redispatch, but suggests that this section be moved to the start of the protocol, as sections A and B provide exclusions to this generic list.

#### *Transmission Services Response*

Transmission Services will move the indicated section, as suggested by Clark PUD, to the front of the draft protocols document.

- C.3. - Clark suggests that BPA provide additional information about the timeline behind "gradual inclusion."

#### *Transmission Services Response*

Transmission Services is currently focused on the development of protocols and procedures for the redispatch of Long-Term DNRs. The redispatch of Short-Term DNRs provides increased challenges, especially related to the timely evaluation of the DNR on whether it meets the relevant criteria and any special operating restrictions.

Transmission Services will not include Short-Term DNRs in the NT Redispatch process at this time.

#### **Section D. DNR Informational Requirements and Communication Protocols**

Clark supports the exchange of the types of data listed in Section D and recommends that the specifics, such as the mechanism and timeframe for collecting such data, be included in the matrix attached to each customer's NT Service Agreement. This will allow the customer and BPA to agree upon mutually acceptable terms and ensure that both the customer and the BPA are fully aware and capable of complying with all requirements.

#### *Transmission Services Response*

As mentioned earlier, Transmission Services will work on the suggested development of a matrix of information. However, specific mechanisms and timeframes for collecting information are anticipated to be consistent for all customers and not determined on a customer by customer basis in order to ensure transparency and comparable treatment across NT Customers. Any customer-specific details will be included in the matrix.

D.4. and D.5. require that forecasted INC/DEC capacity and cost information be submitted to BPA on a "regular basis" over a "system interface." The "regular basis" and "system interface" should be selected via discussion between the individual customer and BPA and documented in the matrix. This will help create clear communication, operating and implementation guidelines that meet the needs of each eligible DNR.

BPA also needs to collect information on how *frequently* a DNR can INC/DEC and over what period of time. For example, some resources have limited flexibility and cannot be asked to INC/DEC repeatedly over a certain period of time. Further, some resources will need to stay DEC'd for a period of time, rather than increased back to normal operating levels the next hour.

### *Transmission Services Response*

Transmission Services will discuss with customers the identification of the system interface over which to submit necessary information as well as the frequency of such submissions, especially the forecasted INC and DEC capacity and INC and DEC costs. However, the timeframe for submission of information and the system interface used for such submission is anticipated to be the same for all NT Customers. As part of the initial gathering of information about a DNR, as indicated in section D, Transmission Services will acquire information on the frequency of DNR INC and DEC capabilities and the timeframes of such capabilities, including capabilities related to 10-minute ramp rates at different generation levels.

A certain resource may be restrained in the *amount of MWs* it can INC/DEC within a certain period of time and also how *often* it can INC/DEC over a longer period of time. In other words, frequent changes to a resource's operation outside of its optimal and normal operating parameters may or will cause damage or additional expense. All of these operating characteristics need to be shared and documented for each DNR, and the DNR should be exempted from providing NT redispatch under those circumstances.

### *Transmission Services Response*

Transmission Services agrees that such documentation as described by Clark PUD is necessary to understand the capabilities of the resource. The DNR may be exempted if a demonstration is made as to a DNRs non-dispatchability.

## **Section E. Compensation Mechanism**

Clark supports the general principle of keeping customers whole financially for providing NT redispatch, and offers the following comments on the specific pricing for each type of resource:

- E.2. Thermal Generation. Clark proposes that BPA and the individual customer document possible costs that may be incurred in the matrix amendment to the customer's NT Service Agreement. This will provide better certainty and ease of calculation when the time arises to calculate compensation.

### *Transmission Services Response*

Transmission Services intends to compensate a customer for any demonstrable cost incurred as a result of providing NT Redispatch. The current compensation mechanism described in section E of the draft protocols document lists examples of actual costs that a customer may incur as a result of NT Redispatch, but the customer will also be compensated for any "other related verifiable and quantifiable costs." The list of sample costs and the broader concept that the customer may be compensated for any verifiable and quantifiable costs is applicable for all DNRs.

- E.4. Market Purchases. BPA needs to ensure the pricing mechanism allows for full compensation of any liquidated damages incurred.

### *Transmission Services Response*

Transmission Services agrees with the Clark PUD comment and intends to keep customers whole financially if a DNR provides NT Redispatch, including compensation for any demonstrable liquidated damages incurred as a result of NT Redispatch.

- E.5. Determining “Actual Costs.” Clark proposes that BPA also include in this list of possible “actual costs” the cost of any penalty incurred for reducing generation, such as penalties incurred for violating environmental standards, such as excess NOX emissions that result from DECing a thermal plant beyond standard operating procedures. BPA should explicitly provide a waiver of the following charges that may be incurred during redispatch: Energy Imbalance, Generation Imbalance, VERBS, DERBS, Short Distance Discount, any penalties under the Power Sales Agreement, etc. The Environmental Redispatch Business Practice contains a good example of such waiver language.

#### *Transmission Services Response*

Transmission Services will explicitly include in the list of possible “actual costs” the costs associated with penalties incurred for deviating from schedule as a result of providing NT Redispatch. Transmission Services also agrees that other charges, such as Energy Imbalance, VERBS, DERBS, and others listed should be accounted for and properly considered if a DNR provides NT Redispatch. Transmission Services will work internally and with customers to determine whether any of these charges will be explicitly waived for the hour in which a DNR provides NT Redispatch or whether these charges will still be applicable for the hour in which a DNR provides NT Redispatch but adjusted to take into account the amount of NT Redispatch provided.

#### **Section F. Communicating an NT Redispatch Request**

In general, Clark supports the proposed mechanisms of communicating an NT redispatch request as stated in Sections F.1.-F.3, but provides the following comments:

- Any revision to a business practice or other mechanism of implementing NT redispatch protocols must provide a public comment period of at least 30 days. Further, there must be a delay of at least 30 days between posting the revised business practice and its effective date. This lag period is necessary in order to provide adequate time to fully retrain Clark’s operations crew at its River Road Generating Plant. Clark must first evaluate the NT redispatch protocol changes and revise its internal processes, and then retrain its operation crew. The operations crew works on a rotating shift schedule, which means not all staff can be retrained immediately. The above timeframes also apply to implementing this revised, expanded NT redispatch protocol for the first time.

#### *Transmission Services Response*

Transmission Services is open to the imposition of a 30 calendar day comment period on business practice changes related to NT Redispatch procedures. Additionally, a delay of at least 30 days between posting of revised business practice and its effective date is reasonable. Before implementing any change to NT Redispatch procedures, Transmission Services will work with its Transmission Customers to determine the amount of time that customers need to adjust their processes and procedures thus adjusting the effective date of the business practice.

- F.2. - BPA should be able to clearly and readily communicate the redispatch of market purchases (i.e., by cutting the e-tag) so our scheduling agent can appropriately account for this cost.

#### *Transmission Services Response*

Transmission Services currently anticipates that the curtailment of the e-Tag associated with a market purchase DNR will be the method for providing DEC capacity from the DNR during NT Redispatch. Transmission Services will keep the customer whole financially for providing the NT Redispatch.

Clark supports the protocols stated in sections F.4.-F.5. Clark agrees with the concept stated in Section F.6., but recommends that BPA provide a stated timeframe for when the customer must provide the supporting documentation as to why it was unable to comply with the NT redispatch request. Clark suggests a time period of 30 days. The documentation that needs to be provided should be listed in the documentation matrix included in the customer's NT Service Agreement. This will allow the customer and BPA to agree ahead of time as to what the pertinent and relevant information may be, thus streamlining future submissions of documentation. In the event BPA inadvertently requests redispatch from a DNR that had previously been exempted from NT redispatch, the only documentation that should be required is simply such exemption documentation.

#### *Transmission Services Response*

Transmission Services agrees that a specific timeframe is needed for when customers must submit supporting documentation as to why a request for NT Redispatch was declined by the customer, and Clark PUD's suggested 30 calendar day period is reasonable and will be considered for the draft protocols. Because the reasons for not providing NT Redispatch from a DNR may vary significantly based on the particular situation, and due to the need for transparency, Transmission Services suggests that examples of pertinent and relevant information that may be useful in demonstrating, after-the-fact, the lack of availability of a DNR for providing NT Redispatch be identified in the draft protocols rather than in the individual NT Customer matrix or agreement.

#### **Other Comments**

Clark offers the following additional comments.

First, Clark would like to flag the use of discretionary redispatch as a topic in need of further discussion. Discretionary redispatch is not pro forma and we are concerned that its implementation could impinge upon and shift costs to NT customers.

#### *Transmission Services Response*

Transmission Services currently credits the Discretionary Redispatch (provided from FCRPS) provided in an hour toward any requested NT Redispatch (provided from FCRPS) needed for that same hour. Transmission Services has analyzed past redispatch events and has not found, to date, any instances of Power Services providing Discretionary Redispatch in one hour and then later being unable to provide NT Redispatch in future hours. At this time Transmission Services does not believe that Discretionary Redispatch

is shifting costs to NT Customers. Nevertheless, BPA will continue monitoring the use of Discretionary Redispatch and its impacts on FCRPS ability to provide NT Redispatch at a later time.

Second, Clark requests that BPA provide additional information on how NT redispatch works with 15-minute scheduling. This could have a significant impact on which DNRs are eligible under NT redispatch.

#### *Transmission Services Response*

Transmission Services recognizes that, as a result of 15-minute scheduling, DNRs may generate and be scheduled differently than today. Nevertheless, Transmission Services anticipates requesting NT Redispatch and the DNR providing INC or DEC capacity only if it is available to do so even with the advent of 15-minute scheduling. At an upcoming customer meeting, Transmission Services will work with customers to identify how NT Redispatch will be affected by 15-minute scheduling.

Finally, Clark requests that BPA provide additional information on how NT redispatch works with the prior to the hour curtailment initiative.

#### *Transmission Services Response*

BPA will treat NT Redispatch consistently with the treatment of curtailments. BPA will have implemented 15-minute scheduling by the time that nonfederal DNRs are incorporated into NT Redispatch. Under 15-minute scheduling, if a curtailment is issued future interval, and the curtailment impacts Firm transmission schedules, Transmission Services will request NT Redispatch to alleviate the anticipated constraint. In those instances, the request to provide NT Redispatch may be issued for the future interval and the DNR will be expected to ramp to the NT Redispatch quantity during the start of the interval's ramp and provide it for the duration specified in the request. Transmission Services will further discuss the interaction between future interval curtailments and NT Redispatch at an upcoming customer meeting on NT Redispatch.

#### **Conclusion**

Clark appreciates the opportunity to provide these comments on BPA's proposed NT redispatch protocol, and also appreciates BPA's receptivity to learning about the unique operating characteristics of its customers' DNRs, such as River Road. This will allow BPA to ultimately adopt a revised NT redispatch protocol that accommodates the unique operating characteristics of non-Federal DNRs and can, therefore, be most effective in providing NT Redispatch that ultimately alleviates congestion on the transmission system.

In order to effectively implement an expanded NT redispatch protocol that is streamlined and least burdensome to customers and BPA, Clark encourages BPA to develop an implementation matrix in order to first evaluate the eligibility of DNRs, and then (if eligible) document all relevant information for each specific resource. Such a matrix will allow BPA and customers to have a common and thorough understanding of the unique operating characteristics of each eligible DNR, ultimately allowing BPA to most effectively utilize its expanded NT redispatch protocol. This documentation should be included in the customer's NT Service Agreement and be mutually signed by both BPA and the customer, consistent with pro forma Tariff requirements.

Clark again reiterates the need for BPA to holistically evaluate and address its provision of NT service to ensure it is comparable or superior to the terms within the pro forma Tariff. BPA's BOATT processes provided a venue for the region to thoroughly vet and implement changes to PTP service, and it is now time for a similar process to be held for NT service. BPA should wait to file any Tariff modifications (related to NT redispatch) at FERC until it holds a robust and comprehensive NT service review so it can file all NT-related Tariff modifications at once.

We look forward to continuing to work with BPA staff on NT-related issues, including the next iteration of these NT redispatch protocols. Please direct any questions or concerns to Megan Stratman ([mstratman@clarkpud.com](mailto:mstratman@clarkpud.com)).

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### 3. Snohomish PUD

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Snohomish County PUD No. 1 (Snohomish) would like to take this opportunity to comment on BPA's proposed NT Redispatch Protocols as presented on February 12, 2014. Generally, Snohomish supports BPA developing tools to mitigate congestion on network flowgates for all of its customers. Snohomish has one general comment regarding cost shifts and three protocol-specific comments described below.

#### **General Comments**

At the February 12 meeting, BPA stated that NT Redispatch is a procedure designed to benefit NT customers and, as such, only NT customers will be responsible for the cost of redispatch. Snohomish supports this approach to cost recovery for NT Redispatch actions, and requests BPA demonstrate how redispatch costs will be recovered in rates to ensure there is no inadvertent cost shifts between the transmission customer classes.

#### ***Transmission Services Response***

Transmission Services FY 2014-2015 Transmission Rate Case testimony describes how Transmission Services currently allocates NT Redispatch costs to NT Customers.

As described in the Transmission Revenue Requirement Study Documentation, the total forecasted costs of NT Redispatch are included in the segmented revenue requirement for the Network. The Study reduces the Network segment revenue requirement by the costs of NT Firm Redispatch and non-Federal NT Redispatch and allocates those costs to the rates for NT service. BPA implements these types of Redispatch to avoid curtailment of NT service; therefore, they benefit only NT Customers. To ensure that these costs are allocated to NT Customers and not to other Network users, the Study applies a credit for the cost of these types of redispatch to the Network segment in each year of the rate period and includes the costs in the calculation of NT rates. Section 4 discusses calculation of the NT rates.<sup>1</sup>

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<sup>1</sup> BP-14 Final Rate Proposal, Transmission Rates Study, BP-14-FS-BPA-07, July 2013, Section 3.2.4.

### **Protocol-specific Comments**

As BPA develops the pricing model for compensating participating generators, it must ensure accurate and proper compensation associated with a shift in generation. The methodology outlined in BPA's draft Protocol is a good first step towards ensuring all costs are captured and Snohomish supports BPA continuing its value analysis to ensure generators receive appropriate compensation.

BPA staff explained that for non-federal resources eligible for NT Redispatch, BPA assesses the relief each can provide to the congested flowgate. Our understanding is that BPA would examine the economic least-cost dispatch options during a congestion event. However, Snohomish is not clear whether BPA examines the effect dispatching a resource has on other network flowgates. If, during a congestion event, NT Redispatch is utilized and generation is shifted, could that redispatch action push another network flowgate into a congested state? Do protocols exist to prevent this redispatch action? Snohomish seeks additional clarification from BPA on this point.

Finally, Snohomish is curious whether BPA intends to aggregate non-federal redispatch information as a report posted to BPA's website, similar to the current monthly "Redispatch Events on the Federal System" report. If so, Snohomish recommends that process be included in the draft NT Redispatch Protocol.

### ***Transmission Services Response***

Regarding the comment about the effect that dispatching a resource has on other network flowgates: Transmission Services recognizes that the movement of generation across a constraint may have an impact on flows on other network flowgates. However, the Integrated Curtailment and Redispatch System (iCRS) tool's calculation of the most effective NT Redispatch of DNRs explicitly considers the impact of that dispatch on other network flowgates and whether that dispatch will lead to the exceedance of flows on those other flowgates. Transmission Services will call on an effective, least cost, NT Redispatch scenario which does not cause the need for curtailment on other Network Flowgates.

Regarding the comment on the posting of redispatch costs: Transmission Services currently posts on OASIS all costs related to Attachment M redispatch, including the dispatch of FCRPS to provide NT Redispatch, as required under NAESB WEQ Standards. Transmission Services will continue to post costs related to NT Redispatch, including the cost of redispatch of non-Federal DNRs.

### **Conclusion**

Snohomish appreciates BPA staff's work to date on this program. We look forward to further participation and working with BPA to finalize this protocol. If you have any questions regarding our comments, please feel free to contact us.

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## **4. PNGC Power**

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PNGC Power first wants to thank BPA Transmission staff for working extensively with customers to understand the issues and potential solutions surrounding NT Redispatch Protocols. PNGC Power also appreciates the opportunity to comment on these draft protocols. Following are PNGC Power's comments:

1. The overarching comment PNGC Power has is that by including non-federal market

purchases that are Designated Network Resources (DNR) in the Redispatch scheme BPA may be exposing itself to extreme volatility in forecasted cost of NT Redispatch. Section E.6.b. states that Actual Costs of Redispatch may include liquidated damages and penalties. Redispatching a market purchase may involve both. Because the structure of Unauthorized Increase Charges (UIC) and potential liquidated damages are tied to spot market indexes, these costs are difficult to forecast, uncontrollable by BPA and the customer, and puts undue risk on BPA customers paying for this service.

*Transmission Services Response*

Transmission Services recognizes the difficulties and challenges associated with the redispatch of market purchase DNRs, especially forecasting liquidated damages. To that end, Transmission Services will reconsider how market purchases fit into the NT Redispatch “least cost” paradigm.

2. Section A.3: The eligibility criteria call for a cost per MW of effectiveness less than a bilateral redispatch option premium. How will this be measured and will there be any seasonality to this option premium? PNGC Power is concerned that at times this test may change from pass to fail, even within a 24-hour period, for non-federal market purchase DNRs due to liquidated damages and Unauthorized Increase Charges (UIC) being based on spot market pricing.

*Transmission Services Response*

Transmission Service is currently reconsidering the need for the A.3 criterion since it anticipates using existing communication tools (such as iCRS) available or already installed on all generators. The A.3 criterion was intended to be a comparison of costs to install equipment and tools in order to be able to receive a signal or notice of an NT Redispatch request for the DNR. If the costs of installation of such equipment were significant, the DNR would be excluded from the program. However, as Transmission Services will likely use tools that all resources already have installed, the need for the A.3 criterion may be moot. Transmission Services is still exploring internally the tool needs, and will know with more certainty whether tools already installed on all resources will be used for communicating NT Redispatch thus removing the need for the A.3 criterion.

3. Section D.5: PNGC Power is concerned about a burdensome process that may require customers to input forecasted DEC cost information for non-federal market purchase DNRs. As PNGC Power has stated in the previous comment this information is both volatile and extremely hard to forecast, specifically for BPA customers who do not currently operate in the hourly wholesale power markets.

*Transmission Services Response*

Transmission Services recognizes the challenges posed with forecasting the potential cost of redispatching market purchase DNRs and is considering how the cost associated with these types of DNRs can be used in determining “least cost” redispatch.

4. As a result of the above concerns, PNGC Power believes it would be in the best interest of BPA and its customers to use non-federal market purchase DNRs only as a last resort after all other resources eligible for NT Redispatch are exhausted. Alternatively, BPA should consider removal of non-federal market purchase DNRs from the NT Redispatch Protocols to avoid these potential adverse consequences.

***Transmission Services Response***

Transmission Services will reconsider how market purchase DNRs would best fit into the NT Redispatch program. As suggested by PNGC, it may be best to place market purchase DNRs at the bottom of the resource stack. Due to the inability to adequately forecast costs (liquidated damages in particular), placement of these DNRs at bottom of the redispatch stack may contribute to Transmission Services being able to preserve Firm NT Schedules while also mitigating the costs related to such redispatch. BPA will consider this treatment for market purchase DNRs.

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## 5. McMinnville Power

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My comment refers to Section B Exceptions to DNR Eligibility Criteria. When TBL does its assessment, please keep in mind that some customers will be using BPA Power Services “Resource Support Services” to shape and firm the resource. Using these services turns a previously variable resource into a flat 24x7 resource. Disregarding the application of the support services would result in an inaccurate assessment.

***Transmission Services Response:***

Transmission Services and Power Services are working to ensure NT customers are not penalized under their Regional Dialog contracts as a result of the redispatch of designated Network Resources (DNR). BPA will share the procedures with NT customers who have Regional Dialog contracts listed as DNRs prior to BPA filing with FERC.

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## 6. Eugene Water & Electric Board (EWEB)

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Comments:

- How will the final agreement be memorialized? Will we have a specific agreement between EWEB and BPA? I assume this would be part of a potential NOA?

***Transmission Services Response***

As suggested in Clark PUD’s comments, Transmission Services will work toward developing a matrix of information related to each DNR meeting the criteria and will identify a location to memorialize the understanding between the parties. One such location may be the NT Service Agreement, as a new exhibit or an addition to existing exhibit, or in the Network Operating Agreement (NOA). Transmission Services will work internally to identify a suggested location and will discuss the progress with customers at an upcoming NT Redispatch meeting.

- About a year ago you spoke with us about NT redispatch and showed a list of EWEB DNR resources you determined might be eligible. We provided you feedback on that list and we are curious if you have another version reflecting our comments?

**Transmission Services Response**

Transmission Services staff will undertake another review of eligible DNRs in the next month and will be in contact with customers shortly thereafter to discuss the eligibility of their DNRs for NT Redispatch.

- MidC Powerdex index price - EWEB has some concerns about Powerdex being a reliable liquid index.
  - There are times when the index price is the average of a few varying prices. For example, the average for an hour could be calculated from \$50/MWh and \$150MWh. We recommend the inc price be the highest reported of the 24 hour period starting with the hour for which the NT redispatch is requested and the lowest reported for a dec price.
  - During periods of transmission congestion, the generation at some locations may be more valuable than other locations. For example, if energy is constrained moving from East to West, then generation in EWEB's service territory may be more valuable than energy sourced from other NW points. Powerdex may not accurately capture these localized congestion premiums.

**Transmission Services Response**

Opportunity costs for NT Redispatch compensation will be based on the index BPA is currently using for Transmission billing purposes (BPA's Transmission Rates Schedule cites "an hourly energy index in the Pacific Northwest"). Transmission Services will modify the draft protocols in response to these comments in order to compensate for opportunity cost as determined by the index or actual cost for Hydro DNRs. The compensation of actual cost will mitigate the concern that the Powerdex index may not truly reflect cost.

- We would like to discuss the interplay between PD and the balancing reserves provided in DERBS if we are called to provide NT Redispatch.

**Transmission Services Response**

Transmission Services anticipates exempting the assessment of the Dispatchable Energy Resource Balancing Service (DERBS) rate for a DNR during the hour in which it provides NT Redispatch. Under the current FY 2014-2015 Transmission Rates Schedule, the DERBS rate is explicitly exempted for any hour in which a resource has been ordered by BPA to change generation levels.

For Persistent Deviation (PD) billing purposes, the hour during which NT Redispatch was provided will not count toward the PD rate determination.

- Is there a minimum timeframe we will be required to provide incs or decs? If we are taking Carmen offline we pay not want to bring it back up just to provide 10 minutes of inc...etc.

**Transmission Services Response**

There is no anticipated minimum timeframe at this time. Transmission Service anticipates that once NT Redispatch is requested from a DNR, it will be provided for the remainder of the

interval for which it was requested. Minimum run times or offline times will be factored into the calculation of the cost of NT Redispatch. Compensation to customers will account for these operating constraints.

- You mentioned providing 5 minutes of notice for incs and decs to be online in 10 minutes. Is that a minimum? In the past have you been able to provide more notice?

#### *Transmission Services Response*

Following a request from NT Redispatch to the DNR, Transmission Services is proposing to provide the NT Customer (or DNR) 5 minutes to inform Transmission Services if the requested NT Redispatch can or cannot be provided. If the DNR can be provided, the DNR will be expected to be at the new generation level within 10 minutes of the initial notice from BPA. If the DNR cannot provide the requested redispatch, Transmission Services will move to contact the next DNR on the dispatch stack in a timely manner.

- How do the informational requirements and communications interplay with the requirements EWEB already has with ER.

#### *Transmission Services Response*

Transmission Services already may have information about a DNR as a result of its participation in Oversupply Management. Transmission Services will strive to use information it already has about a DNR in order to minimize the administrative burden on the customers.

- EWEB recommends changing the word 'plant' in the second bullet to something more broad since customers could be dealing with fish and other operational requirements in addition to the 'plant'.

#### *Transmission Services Response*

Transmission Services will change the word "plant" to "resource" in the draft NT Redispatch Protocols document.

- In the fourth sub-bullet we would like to discuss BPA's definition of 'have ability' and 'regular basis'.

#### *Transmission Services Response*

Transmission Services will work with its customers to identify the appropriate timeframes for submission of information and updates on each DNR as part of the NT Redispatch program.

- Fifth sub-bullet - Should you clarify this only applies to thermals?

#### *Transmission Services Response*

Transmission Services will modify the draft protocols to provide NT Customers with Hydro DNRs to be compensated for the higher of opportunity cost and actual cost incurred as a result of NT Redispatch. Those customers with Hydro DNRs may need to submit forecasted INC and DEC cost information in order to account for the potential actual cost incurred. Thus, this requirement to provide forecasted INC and DEC cost information may apply to any type of DNR whether hydro, thermal, variable, or market purchase.

Finally - we were a bit confused with the high level administration required and the platform for communicating. We have this proposal:

Proposal:

EWEB submits annual report of project's 10 min response capability at generation levels. (written report?)

EWEB currently provides hourly generation forecast to TBL via CDE

TBL can use these these to determine approximate capacity available.

TBL calls EWEB for NT Redispatch, if EWEB is unable to provide reported capacity, EWEB will provide supporting documentation after the fact for not providing.

### ***Transmission Services Response***

Transmission Services will automate the process for requesting NT Redispatch from DNRs. Due to the limited time available to alleviate a transmission constraint, a manual phone call process would not provide a timely response to the need to maintain system reliability through NT Redispatch. The use of a phone call to request NT Redispatch would take considerable time, especially if multiple calls need to be made to a number of generators, including if some of the DNRs are not able respond to the request. Automation of the process will help Transmission Services ensure a more effective response to the transmission constraint through NT Redispatch.