Dynamic Transfer Capability (DTC) Rates Settlement Update Workshop (January 19, 2012) Summary of Parties' Comments

Puget Sound Energy	Pg 2
Renewable Northwest Project	Pg 9
Powerex	Pg 11
Iberdrola Renewables	Pg 13
Tilghman Associates (FDPR)	Ρσ 14



February 10, 2012

Department of Energy Bonneville Power Administration Transmission Services P.O. Box 64109 Vancouver, WA 98666-1409

Via Email: techforum@bpa.gov

Re: Comments of Puget Sound Energy, Inc. on the Presentation Entitled "Dynamic Transfer Capability (DTC) Rates Settlement Update Workshop" Posted by the Bonneville Power Administration on January 19, 2012

Dear Ladies and Gentlemen:

In this letter, Puget Sound Energy, Inc. ("<u>PSE</u>") comments on the Presentation entitled "Dynamic Transfer Capability (DTC) Rates Settlement Update Workshop" (the "<u>DTC</u> <u>Presentation</u>") posted by the Bonneville Power Administration ("<u>BPA</u>") on January 19, 2012. PSE thanks BPA for the opportunity to comment and to work cooperatively with BPA on the issues addressed therein.

1. Careful Consideration should be given to BPA's DTC Business Practices and Policy Impacts on Innovation in Energy Products and Services in the Pacific Northwest

As a general concern, BPA's existing DTC business practices and policy may have the effect of limiting innovation in energy products and services in the Pacific Northwest. Accommodation of increasing variable energy resources will be facilitated by increased access to resources across the region. In their current state, BPA's DTC business practices and policy may prevent products and services developed in regional forums (i.e., Joint Initiative Dynamic Scheduling System (DSS)) from reaching their full potential and could frustrate development of future solutions such as an energy imbalance market.

PSE acknowledges that BPA has worked on "seams issues" between newly developed products and services and BPA's existing DTC business practices and policy. Nevertheless, BPA's existing DTC business practices and policy may inhibit the full realization of the value of

such new products and services. In other words, BPA's existing DTC business practices and policy lack sufficient flexibility to accommodate future developments in energy policy and products in the Pacific Northwest. Broader impacts and benefits should be considered in the development of BPA's DTC business practices and policies, and BPA should work collaboratively with the region in this effort.

2. BPA Should Address Shortcomings in the Its Existing Dynamic Transfer Capability Business Practices and Policy

PSE supports regional, collaborative, and long-term solutions to the issues caused by transfers of output from variable energy resources, including without limitation dynamic transfers and self-supply arrangements with respect to variable energy resources. Such long-term solutions, however, should not delay more immediate efforts to address certain shortcomings in BPA's existing dynamic transfer capability ("DTC") business practices. Indeed, BPA and its stakeholders, in addressing certain shortcomings in BPA's existing DTC business practices, will likely bring, identify and address issues that arise in the development of long-term solutions for the issues caused by transfers from variable energy resources.

Some of the shortcomings of BPA's existing DTC business practice that BPA and the region should most immediately address are as follows:

a. BPA's Existing DTC Business Practices and Policy Fail to Recognize that Technical Problems are Caused by Both Dynamic and Static Transfers

A fundamental issue with BPA's existing DTC business practices and policy is the assumption that only resources engaging in a dynamic transfer or self-supply are affecting risk parameters, such as, for example, transmission system voltages, reactive reserve management, Remedial Action Scheme (RAS) arming and state awareness. Variable energy resources (e.g., wind resources) that schedule statically will produce intermittent and occasionally rapid changes in power flow across BPA's internal flowgates. Given the number of internal flowgates that BPA manages on its system, it is inevitable that these statically transferred variable energy resources will increase the power flow variability across BPA's system. BPA's focus on resources that engage in new dynamic transfer or self-supply addresses only a subset of BPA transmission users that affect risk parameters and ignores the fact that all variable energy resources affect the risk parameters.

BPA's existing Dynamic Transfer Limit Study published February 15, 2010 (the "<u>Dynamic Transfer Limit Study Methodology</u>") and BPA's Dynamic Transfer Capability Pilot

Workshop 101 (the "DTC Workshop"), held on December 2, 2010, support the above assessment. Specifically, BPA used five-minute supervisory control and data acquisition (SCADA) data from calendar years 2007, 2008, and 2009 to determine "historic uses" of DTC. The SCADA data focused not on specific resources, but rather, net power flows across a flowgate or path. Although not fully described in the Dynamic Transfer Limit Study Methodology, PSE presumes that BPA used this data to determine the largest variations in power flow over 60-minute periods to determine the historic usage of dynamic transfer. It is important to note, however, that such an analysis of historic usage did not exclude static transfers. Instead, such an analysis examined variability in general, which could originate from a large variety of different sources, including statically scheduled variable energy resources.

In the DTC Presentation, BPA commented that it will adopt the uniform regional methodology for setting forth "Transfer Variability Limits" (TVL)¹. This methodology, developed by the ColumbiaGrid WIST Dynamic Transfer Capability Task Force (the "DTC Task Force"), did not focus exclusively on resources engaging in dynamic transfers. Instead, the DTC Task Force methodology addressed variable energy resources that could produce large variations in power flow across an interface (flowgate or path). The DTC Task Force's methodology inherently supports the proposition that both variable energy resources balanced by BPA resources and variable energy resources balanced by other resources (whether through dynamic transfer or self-supply) could affect the DTC on a flowgate or path. PSE acknowledges that staff from BPA were active on the DTC Task Force, and that there was consensus among members of the DTC Task Force on the idea of TVLs. PSE suggests that BPA revise its DTC business practices and policies with terms to reflect the findings of, and terms used by, the DTC Task Force.

In sum, as stated above, all variable energy resource uses of transmission consume some non-trivial level of DTC. Important variables to consider include amplitude of variability, frequency of variability and predictability of variability. Therefore, PSE suggests that BPA work within a regional forum, such as the DTC Task Force, to determine whether and how BPA should modify its existing DTC business practices and policies.

¹ The DTC Task Force also chose to use the term "Variable Transfer Capacity" or "VTC" to identify the remaining capability on a flowgate or path to accommodate high variations in power flow. This definition of the remaining capability (similar to BPA's DTC) communicates the fact that variable energy resources (whether dynamically or statically transferred) affect DTC on a flowgate or path.

b. Voltage Change Criteria

According to the Dynamic Transfer Limit Study Methodology, BPA's current DTC inventory is influenced by the methodology used to determine Dynamic Transfer Limits. The Dynamic Transfer Limit Study Methodology sets parameters in power flow to restrict the amount of voltage change at bulk transmission system busses that occur on a frequent basis. BPA based these voltage limits on IEEE 141-1993 "flicker" curves, which describe the interaction of voltage variation frequency and visibility of flicker at low voltage consumption points. In using these curves, BPA inherently assumed that voltage variations at extra-high voltage busses would propagate to high voltage busses, medium voltage busses, and, finally, to the end-user at low voltages. PSE understands that the significance of a given voltage variation is not necessarily uniform across transmission systems. Also, since the "flicker" curves relate the allowable voltage variation inversely to the frequency of occurrence, BPA should not apply the voltage change threshold for frequent voltage variations caused by variable energy resources to an infrequent event such as a thermal generator trip. Further, PSE understands that there has not been a consensus within the DTC Task Force on an acceptable level of voltage variation at a given bus and that more work is necessary to identify appropriate voltage variation parameters. PSE suggests that BPA work with the DTC Task Force to identify limits for frequent voltage variation at different busses across the Pacific Northwest system that will accommodate variable transfers while maintaining system reliability.

c. External Paths Create Different Types of Variability than Internal Flowgates

PSE recognizes that variability produced from a dynamic transfer arrangement on BPA's interties (e.g. impact of variation from BC resource balancing wind resource in Columbia Gorge on Northern Intertie) will produce concentrated variation at bulk intertie facilities that represents a different impact on BPA's system than variable transfers across BPA's network interfaces. A study was undertaken by BC Hydro (BCH) that identified improvements that could be made in the BCH system to increase the Transfer Variability Limit (TVL) on the northern side of the Westside Northern Intertie. Similar studies can be performed by path owners on the southern side of the Westside Northern Intertie to see how the Intertie TVL can be raised. Similar consideration should be given to all BPA interties.

d. BPA should hold-back DTC for other joint owners on the internal flowgates and external paths it operates

To the extent that BPA calculates Dynamic Transfer Capability on internal flowgates and external paths on its system that have multiple capacity owners, Dynamic Transfer Capability should be allocated to these owners pro rata with each owner's percentage ownership on the interface. Whether or not a capacity owner decides to award or monitor dynamic transfer limits

in the future, this allocated capability of any owner should be assumed to be available to that owner and not assumed to be available to other owners. This is consistent with the assumption made by BPA and other participants in the DTC Task Force with regard to the jointly owned interties.

e. BPA Should Work Collaboratively with Stakeholders in the Region to Address Shortcomings in BPA's Existing DTC Business Practices and Policy

BPA should address the shortcomings in BPA's existing DTC business practices and policy discussed above within an existing or a new regional forum. If BPA is to sponsor its own regional forum, BPA should solicit participation from members of the DTC Task Force and other stakeholders in the region interested in the technical and commercial issues surrounding dynamic transfers to address these issues in a transparent and collaborative manner. BPA should be open to modification of its DTC business practices and policy based on the analysis and consensus developed in such a regional forum. Given the technical and complicated nature of these issues, PSE recognizes that substantial time may be necessary to address these issues. In order to work through these issues so that results can fit in and inform decisions made in BPA's rate case processes, PSE suggests that BPA coordinate a number of meetings in March, April, May and June of 2012.

3. BPA Should Work Collaboratively with Stakeholders in the Pacific Northwest to Develop Long-Term, Flexible Means of Addressing Variability in Power Flows on BPA's Transmission System

As stated above, BPA and its stakeholders should engage in a forum to address in the near term shortcomings in BPA's existing DTC business practices and policy. Further, PSE supports a regional, collaborative, and long-term solution to the issues caused by transfers of output from variable energy resources (which include but are not limited to dynamic transfers and self-supply arrangements with respect to variable energy resources).

As stated above, PSE recognizes that variable energy resources significantly contribute to frequent variability. BPA and stakeholders in the region should address the following questions in any regional, collaborative, and long-term solution:

• To what extent do variable energy resource users of BPA transmission increase BPA's risks regarding voltage fluctuation, reactive management, RAS arming and state awareness?

- Have variable energy resource users of BPA transmission properly mitigated the impacts of unanticipated power flow variability on the bulk transmission system?
- Based on the work already completed by the DTC Task Force, what is required for the region to develop a proactive study process to determine the systems and transmission upgrades required to mitigate the impacts of increasing unanticipated power flow variability?

PSE believes that answers to these questions will assist in the development of a long-term solution to power flow variability. The DTC Task Force has already made significant progress in this area, and PSE recommends that BPA work with members of the DTC Task Force to develop the structure for a new forum that can develop long-term solutions for unanticipated power flow variability.

PSE recognizes the connection between technical analysis and policy development on these issues and believes that a proper forum will include a mix of technical experts and commercial/policy experts. As stated above, PSE suggests that BPA solicit the help of existing members of the DTC Task. BPA should also consider soliciting assistance from other technical and policy experts in the Pacific Northwest, including but not limited to members of the ColumbiaGrid WIST or the newly-assembled NWPP Market Design Committee. BPA should schedule a DTC workshop with its transmission customers, members of the DTC Task Force and other interested stakeholders to develop a work plan to address these issues.

4. BPA Costs To Address Unanticipated Power Flow Variability From Variable Energy Resources Should Be Equitably Allocated

BPA's costs of any long-term solution for mitigating frequent unanticipated power flow variability should be equitably allocated, recognizing that such flows are largely caused by variable energy resources (wind resources), but also recognizing that transmission system upgrades made to mitigate the increased risks from unanticipated power flow will likely provide benefits to users of BPA's transmission system more generally (not just those with variable energy resources).

5. Conclusion

PSE appreciates BPA's review of these comments and consideration of the recommendations contained herein. By return e-mail, please confirm BPA's receipt of these comments.

Very truly yours,

Puget Sound Energy, Inc.

David Mills

Its Director

Energy Supply & Planning Puget Sound Energy, Inc.

RNP Members

3Degrees

American Wind Energy Assoc. Blattner Energy Bonneville Environmental Foundation BP Wind Energy Calpine Center for Energy Efficiency & Renewable Technologies CH2M Hill Citizens' Utility Board Climate Solutions Clipper Windpower Columbia Gorge Community College Community Renewable Energy Association **E.ON Climate & Renewables EDP Renewables Element Power Environment Oregon Environment Washington** enXco, Inc. **Eurus Energy America EverPower** Gaelectric Gamesa Energy USA GE Energy Geothermal Resources Council GL Garrad Hassan Green Mountain Energy Iberdrola Renewables Jones Stevedoring Kapla Law PLLC Lane Powell PC MAP Montana Environmental Information Center MontPIRG Natural Capital Partners Natural Resources Defense Council NaturEner NextEra Energy Resources Northwest Environmental Business Council **NW Energy Coalition** Oregon Solar Energy **Industries Association OSPIRG** Port of Vancouver, USA Portland Energy Conservation, Inc. **REC Silicon RES America Developments** Ridgeline Energy Solar Oregon SolarCity Stoel Rives, LLP **SunPower Corporation** Suzlon Wind Energy Corporation SWCA Environmental Consultants Tanner Creek Energy Tonkon Torp LLP Vestas Americas Warm Springs Power & Water Enterprises Washington Environmental Council WashPIRG

Western Resource Advocates



February 10th, 2012

TO: BPA Tech Forum, techforum@bpa.gov

RE: 2014 Rate Case: DTC

Renewable Northwest Project (RNP) appreciates BPA following through on the commitments made in the BP-12 Transmission Settlement to explore policy issues and adopt commercial practices for determining, allocating, and increasing Dynamic Transfer Capability (DTC). RNP believes that addressing these issues is important to regional efforts to procure balancing area services at the least cost to rate payers.

RNP commends BPA for devoting staff resources to the WIST's Dynamic Transfer Capability Task Force. The methodology developed by the group plays a very important role in the effort to marry commercial operations with the transmission system's limitations.

BPA should clarify if there are any differences between the methodology developed by the DTC Task Force and the methodology "BPA has been using to assess dynamic transfer limits and evaluate DTC request (p. 10, January 19th, 2012 Rate Case Workshop)." This would help customers understand whether or not they should expect to see different DTC levels going forward.

Despite the task force's success, there remains much work to be done. The task force did not use its methodology to catalogue the DTC availability across system flowgates, but instead deferred to regional transmission providers. BPA should take a leadership role and apply the described methods on all internal paths and interties. Furthermore, BPA should coordinate with regional balancing authorities to ensure that all regional paths are analyzed in a timely manner.

This inventory of DTC location and availability must be established before durable allocation and cost structures can be established over the long-term. BPA should inform customers immediately as to how long this inventory process would take. If this process will take longer than is commercially viable for particular DTC applications and pilot programs, then BPA should prioritize the timely resolution of the DTC questions needed to keep those efforts moving forward (e.g. Generator Imbalance Self Supply).

However before BPA and the region can proceed with cataloguing TVL evaluations, several policy questions identified by the task force must be addressed. Please see DTC Task Force Phase 3 Report (Dec 2011), page 4 and page 5, numbers 9 and 10, for example. BPA should discuss with customers how these questions will be handled and the ultimate assumptions should be made transparent.

After settling initial assumptions, RNP encourages BPA to develop a catalogue of path Transfer Variability Limits (TVLs) according to different ramp rates. Understanding TVLs under typical "unrestricted" ramp rates for intermittent resources and loads is an important first step. However, there is still additional value measuring how sensitive the TVL is to slower ramp rates. For example, customers interested in DTC may require this transmission capability for the purpose of procuring or providing imbalance and following reserves only. Presumably, these less "dynamic" products consume less of a path's TVL and will be more readily available on the system. These products will also have less of an impact of on path's static flow capability. RNP encourages BPA to take these additional steps in its analysis because the results will be commercially valuable.

Lastly, the developed catalogue should include the historical and committed use of DTC on each path. This information is important for upcoming commercial operations when customers will need to understand why certain paths and flowgates are limited. The disclosure of the historical and committed use of DTC will be still more important when the region considers how to expand DTC.

RNP appreciates BPA beginning to address these important issues. Increasing the dynamic capability and use of the Northwest transmission system is a critical supporting step toward a cleaner energy future.

Sincerely,

Jimmy Lindsay

Power Systems Analyst

¹ BP-12 Final ROD (BP-12-A-02A), Section 5(a-c).

These comments are submitted on behalf of Karen McDonald, Powerex.

Powerex has the following comments on DTC related issues:

As a general comment, Powerex is highly supportive of BPA's efforts to systematically quantify the Transfer Variability Limits of its system and then design processes to allocate existing dynamic capacity and develop additional capacity. BPA's DTC initiative is extremely important, and is a valuable tool to assist with the integration of renewable resources in the region. Powerex does have concerns, however, regarding the manner in which BPA is allocating DTC, and with other DTC-related issues.

In this regard, Powerex has the following comments:

- 1. **Need for a common set of terms**: Given that there are various interpretations in the west as to what DTC is, Powerex would like to see the adoption of a consistent set of terms that could be used in discussions regarding dynamic transfers. The terms listed in the Phase 3 report of the DTC Taskforce could provide a starting point. For our comments below, we continue to refer to DTC.
- 2. The use of commercially-allocated DTC should have priority over non-commercial use of DTC: Dynamic transfer capability of the system is used in three ways:
- o Commercially (i.e. by those who have been granted DTC, paid for Firm Transmission Service and then schedule their dynamic transfers);
- o Non-commercially (i.e. by inadvertent flows across BPA's transmission system from balancing authorities in WECC); and
- o Not yet identified commercial use (i.e. the difference between actual flows vs. scheduled flows from variable generators within BPA's BAA).

With respect to inadvertent flows, BPA is not compensated for this dynamic use of its transmission system by its neighboring balancing authorities. Further, although BPA has limited the legitimate commercial use of DTC and has mechanisms in place to rapidly curtail some dynamic transfers, it has not established a mechanism to limit in advance or curtail in real-time the non-commercial dynamic use of its system. Powerex believes that this problem is getting worse as many balancing authorities in WECC are participating in the Reliability Based Control Field Trial, which allows virtually unlimited inadvertent flow during certain conditions.

In addition, the flexibility built into the reliability standards on AGC management and inadvertent flows may give market participants a strong incentive to establish a separate balancing area for VERs within BPA's BAA, and then manage their regulating requirements with inadvertent flows across BPA's system. BPA should take steps to ensure that any new or existing balancing authorities connecting to BPA's BAA cannot use this tactic as a means to avoid or bypass the formal rules associating with requesting and using DTC on BPA's system.

As noted above, DTC is of significant value to BPA's customers, and BPA should take every step possible to ensure that the maximum amount of DTC is available for customer use. Similarly, BPA should take every step possible to limit to limit the uncompensated use of its transmission system by other balancing authorities. Powerex strongly believes that when BPA identifies a need to limit dynamic flows across a flowgate that the customers who have formally requested and compensated BPA for the DTC rights should not face increased real-time curtailment risk because inadvertent from neighboring balancing authorities flows unfettered across constrained flowgates.

- 3. **New variable generation must request DTC:** Non-dispatchable generation with variable and changing output causes dynamic flows. BPA should acknowledge that variable generators that are already connected to the grid have implicitly been allocated some DTC. However, going forward, BPA should require any new variable generation seeking interconnection to formally request the DTC that it will require, and BPA's allocation of DTC to those generators must be done consistent with the OATT framework. A variable generator should not be granted interconnection if the DTC at their interconnection point is already fully utilized, or fully encumbered by requests for DTC that were previously queued by other customers.
- 4. **DTC** should be awarded in accordance with the principles of the OATT: As we've indicated previously, Powerex strongly believes that all forms of transmission service, including dynamic transfers, should be awarded in a fair, transparent, and non-discriminatory basis, consistent with the principles of the OATT. As a result, Powerex is very concerned about the provision of BPA's business practice regarding Dynamic Transfer Capability: Requesting and Awarding Access which provides that requests from generators that are part of the Customer Supplied Generation Imbalance Pilot Program will be processed first. This gives preferential access to capacity that can be dynamically scheduled to one class of customers, and is inconsistent with FERC's open access policy. Powerex believes that all of BPA's transmission customers should be given the opportunity to receive DTC in accordance with the principles of the OATT.
- 5. **Joint Initiative Forum on DTC issues**: Powerex supports the idea of a Joint Initiative Forum to discuss issues related to dynamic transfers. We think the following issues will be particularly important for the region to work on:
- (a) Identifying a common set of terms;
- (b) Discussing the various uses of DTC as described above;
- (c) Developing a means to restrict the non-commercial, unauthorized use of DTC via inadvertent flows: and
- (d) Developing an allocation methodology that is consistent with the OATT framework.

Thank you for the opportun	nity to provide comments	

Karen McDonald Trade Policy - Pacific Northwest 604-895-7030 karen.mcdonald@powerex.com Iberdrola Renewables appreciates the information presented at Bonneville's January 19th workshop and Bonneville's efforts to follow-through on rate case settlement commitments related to Dynamic Transfer Capability (DTC). Iberdrola Renewables is very interested in engaging Bonneville on all of the issues listed in Bonneville's presentation on this topic and is particularly supportive of Bonneville's efforts to provide greater certainty through longer-term DTC awards on its system. Bonneville's DTC policies are critical to building on the continued success of the CSGI program as well as facilitating additional mechanisms to enable improved intra-hour balancing capability. Iberdrola Renewables appreciates Bonneville's efforts to seek customer input on this critical initiative and looks forward to participating in the upcoming process.

Laura Beane Iberdrola Renewables

1125 NW Couch, Suite 700; Portland, OR 97209 Telephone: (503) 478–6306; Mobile: (971) 344–3047; Fax (503) 796–6907

laura.beane@iberdrolaren.com

Henry Tilghman Tilghman Associates HRT@TilghmanAssociates.com 503-702-3254

To: Techforum@bpa.gov; Rebecca Fredrickson (by E-mail)

From: Henry Tilghman on behalf of EDP Renewables (EDPR)

Date: February 10, 2012

Re: Dynamic Transfer Capacity Comments

Tilghman Associates submits the following comments on behalf of EDPR. EDPR appreciates the opportunity to provide these comments following the "Dynamic Transfer Capability (DTC) Rates Settlement Update Workshop" that took place on January 19, 2012.

EDPR supports the comments of Renewable Northwest Project on this topic. While EDPR agrees that much progress has been made in the region related to improving understanding of the many of issues related to dynamic transfers and while EDPR commends Bonneville on its efforts to date, much work remains to be done.

EDPR agrees with Bonneville that this process should address the following topics:

- Term of DTC Awards
- Priority of DTC Allocation
- Possible Growth of DTC (how much, when, and for what purpose?)
 - Network
 - Interties
- Possible DTC Rate
 - o Billing Determinant
 - Segmentation of Facilities
- Possible Direct Assignment of Costs for New Uses
- Standardized Contract Terms and Conditions

In addition to these listed topics, however, EDPR believes that the open and constructive dialogue on dynamic transfer issues must include these additional topics:

- Policy Issues
- Bonneville's existing obligations to consumers of dynamic transfer capacity
- Whether existing dynamic transfer obligations are transferable between customers
- Establish a Dynamic Transfer Segment for purposes of allocating costs associated with existing dynamic transfer obligations

Policy Issues

Many of the topics in Bonneville's list for discussion have complex policy implications. As variable energy resources continue to increase their market penetration, the demands on the transmission system will change in fundamental ways. Bonneville has

done an excellent job of beginning to explore some of the current technical limitations. But in beginning to address the commercial issues (including term and allocation), this process should consider the longer term policy goals of the region. For example, a variety of different organizations (from WECC, to NWPP, to a smaller group of customers in the region) are considering whether to form energy imbalance markets of various-sized footprints. The region needs to consider whether allocating dynamic transfer capability to individual customers will limit - or enhance development of these alternatives. Obviously, these workshops are not the place to decide whether the region will pursue an energy imbalance market. But while stakeholders in the region (or parts of it) are still weighing the costs and benefits of these alternative imbalance markets, does it make sense to allocate scarce dynamic transfer capacity to individual customers? Or should that capacity be available when one of those markets begins operation? It would be short sighted to establish a mechanism to allocate dynamic transfer capacity to individual customers only to shortly later realize that there is a higher use for that capacity in facilitating a broader market.

Existing Obligations

Bonneville has consistently rejected disclosing information related to its current contractual obligations to provide dynamic transfer rights. If Bonneville seeks to establish a DTC Rate, a DTC Segment, or Directly Assign Costs for New Uses of Dynamic Transfers, however, then Bonneville will first have to become much more open and transparent regarding its existing obligations to provide dynamic transfers. EDPR suggests Bonneville schedule a workshop to review what information it currently has regarding its existing obligations to provide dynamic transfers and solicit customer input as to the specific types of information that should be included in the inventory. EDPR suggests the following categories as an initial list:

- Total Dynamic Transfer Capacity (Transfer Variability Limit) by flowgate
- Existing committed uses
 - Customer Name
 - Source of obligation (i.e. NT Service, contract, other)
 - Methodology for calculating the obligation (express or inferred)
 - Quantity of dynamic transfer allocated to each customer
- Transfer rights if any

Dynamic Transfer Segment

Bonneville should also establish a Dynamic Transfer Capacity segment for the costs associated with meeting customers' historic dynamic transfer rights. Many PTP customers do not have - or desire - a dynamic component to their service. EDPR believes it is appropriate to identify the facilities and programs used to support the historic levels of dynamic transfers and allocate the associated costs to those customers who receive the benefit of those services. In workshops, Bonneville staff has stated that load consumes dynamic transfers differently from generators; this assertion, however, has not been supported with evidence. In fact, an NT customer with a mostly residential load probably does consume dynamic capacity much differently from a generator or from an NT customer with large industrial or commercial loads. But the dynamic requirements of large industrial loads and

irrigation loads may actually be more similar to generators than to residential loads. Customers who currently consume existing dynamic transfer capacity should pay for that service in proportion to their use. While EDPR concedes that all customers benefit from facilities that provide voltage support for reliability, EDPR notes that customers with a dynamic component to their service benefit disproportionately.