

# Scheduling Workshop February 4, 2008



**Building Connections** 

### Agenda

8:00am BREAKFAST 8:20am Welcome & Introduction 8:25am **BC** Power System 9:20am Available Transfer Capability 9:50am **Transmission Services** 10:00am BREAK 10:15am Long-Term Transmission Scheduling Scheduling Tools and OASIS 11:15pm 11:30am **Reserving Transmission** 12:00pm LUNCH Scheduling Energy 12:30pm 1:15pm Interruptions and Curtailments Loss Compensation Service 1:25pm 1:30pm Settlement and Billing 1:40pm **Pre-schedule Displacements** 2:15pm BREAK 2:30pm Pre-schedule Displacements – Scenarios 3:30pm Network Economy 4:10pm Wrap up and Thank-You

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### **BC Transmission System**

- NERC / Western Interconnection
- BC Transmission System
- System Regions
- Balancing, Interchange, and Transmission
- Limits / Stability
- WECC Path Ratings
- Congestion Points
- WECC Operating Transfer Capability
- Total Transfer Capability
- Firm Total Transfer Capability
- Outages (Planned and Forced) Impacts
- Transmission Reliability Margin
- Disturbances







### **NERC History**

November 9, 1965 – Northeast blackout. 30 million people lost power in the NE United States and SE Ontario.

June 1, 1968 – NERC created to set reliability rules... to prevent future blackouts. Criteria and guides maintained and practiced voluntarily.

July 13-14, 1977 – Blackout in New York City occurs again.

1996 – Two major blackouts in the western United States prompts some WECC members to enter into agreements to pay fines if they violated certain reliability standards. BPA adopts practice not to operate their system in any unstudied condition.

1997 – NERC sets out to implement the blue-ribbon panel's recommendation of a self-regulatory reliability organization. NERC began work to convert planning guides into planning standards.



### NERC History cont'd

Dec 31, 1999 (Y2K) – NERC monitors power systems for possible failures.

August 14, 2003 – North America experiences worst blackout ever, 50 million people lost power in the NE and Midwest US and Ontario.

July 20, 2006 – FERC certified NERC as the "electric reliability organization" for the United States.

June 4, 2007 – Compliance with approved NERC Reliability Standards becomes mandatory and enforceable in the United States. Canadian Provinces working through their regulators to make Standards enforceable in each of their jurisdictions.



### Western Interconnection (WECC)

The Western Interconnection is a synchronous connection of interconnected utilities with the sole mandate of providing reliable service.

The Western Electricity Coordinating Council (WECC) is the regulatory body within NERC charged with ensuring this reliable service is provided.

BCTC agrees to follow all Reliability Standards and operate the BC Power System to comply within all reliability rules.





# BC Transmission System





### **BC Transmission System**



### **System Regions**



### Balancing, Interchange and Transmission Operator

# BCTC is the Balancing, Interchange and Transmission operator for the entire British Columbia electrical grid

 A Balancing Authority Area is defined as an electrical system bounded by interconnection metering and telemetry. A Balancing Authority controls it's generation to maintain it's interchange schedule while regulating interconnection frequency.



### Interties – Neighboring Balancing Authorities

The BCTC BA interties with the Alberta Electric System Operator (AESO) to the East.

The BCTC BA interties with the Bonneville Power Administration to the south.





## What is a Transmission Provider?

#### **BCTC is the Transmission Provider for the BC electrical grid**

 Transmission Provider is defined as the utility that owns, controls or operates facilities used for the transmission of electric energy and provides transmission service under the Tariff

# Fortis BC is the Transmission Provider for the Fortis portion of the BC electrical grid



### **Power Transfer Limits**

To reliably operate a power system, BCTC must recognize there are power flow limits or power transfer limits. The limits are applied to the generation and transmission of active (MW) and reactive power (MVAR) in the system.

The limits are usually divided into three broad categories:

- Thermal thermal capability of power system equipment
- Stability imposed to ensure that system torque and power angles remain controllable
- Voltage imposed to ensure that system voltage levels are not subjected to prolonged deviations



## **BCTC is Stability Constrained**

#### Transient and Voltage Stability constrained ...

#### What is Transient Stability?

Ability of the power system to remain in synchronism following a major disturbance

- Disturbance can cause damaging stress to generators.
- Changing system conditions may increase or decrease unit susceptibility to instability when a disturbance occurs.
- If the system is already stressed the loss of a transmission element or a generator could cause instability.





### **Power Transfer Limits**





# **Voltage Stability**

#### What is Voltage Stability?

# Ability of the power system to maintain adequate voltage magnitude

- In a voltage stable system both power and voltage are controllable.
- In a voltage unstable system the Operator has lost control of both power transfer and voltage magnitudes.
- Reactive power required by loads cannot be maintained. Motor loads on the system will stall, the voltage decay becomes rapid and part of the system will collapse. The west coast of the Pacific NW is voltage stability constrained.



### **BCTC Real-time Voltage Stability Analysis**



# WECC Path Rating

#### **Path Rating**

 The maximum path rating in MW that has been demonstrated to the WECC through study results or actual operation, whichever is greater. This rating is the maximum that can be demonstrated to flow under realistic and optimistic conditions, which can be demonstrated to meet the appropriate reliability criteria.



## **WECC Path Ratings**

#### Path Rating for path 1 is:

- 1200 MW BC>AB
- 1000 MW AB>BC

#### Path Rating for path 3 is:

- 3150 MW BC>US
- 2000 MW US>BC





### How Do We Interconnect?

Path 1 (Alberta intertie) consists of 5L94, 1L274, and 1L275.

Path 3 (BPA intertie) consists of 5L51/52, 2L112 and FortisBC, Teck-Cominco, Columbia Power Corporation -2L227 / 71L





### **BCTC Constrained paths**



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Generation station

500kV substation

Interconnected area

500k∨ line 230kV line 138kV line Tie to other area

### **NW Constrained paths**

### **NW Constrained Paths**



# **Transfer Capability (NERC)**

The measure of the ability of interconnected electric systems to move or transfer power *in a reliable manner* from one area to another over all transmission lines (or paths) between those areas under specified system conditions.

- The units of transfer capability are in terms of electric power, generally expressed in megawatts (MW).
- The transfer capability from "Area A" to "Area B" is *not g*enerally equal to the transfer capability from "Area B" to "Area A."



## **Operating Transfer Capability (OTC)**

WECC defines (through a NERC Standard) what OTC is in the west and lists the Paths this applies to.

Actual power flow and net scheduled power flow over an interconnection or transfer path shall be maintained within Operating Transfer Capability Limits ("OTC"). The OTC is the maximum amount of actual power that can be transferred over direct or parallel transmission elements comprising:

- An interconnection from one Transmission Operator area to another Transmission Operator area; or
- A transfer path within a Transmission Operator area.



# WECC Approved OTC's

# Maximum approved OTC rating for path 1 is:

- 1160 MW BC>AB
- 1000 MW AB>BC

# Maximum approved OTC rating for path 3 is:

- 3150 MW BC>US
- 2000 MW US>BC





## **OTC Compliance**

NERC and WECC rules state that the Path Operator must ensure that actual transfers stay below the OTC limit

- AESO is designated as the Path Operator for Path 1
- BCTC is designated as the Path Operator for Path 3

#### Whenever actual transfer exceeds OTC the path operator must reduce the actual transfer. WECC RMS requires that OTC must not be exceeded for more than

- 20 minutes for a stability constrained path (all BCTC paths)
- 30 minutes for a thermally constrained path



### **Ensuring OTC Compliance**

# To ensure compliance with OTC criteria, BCTC establishes TTCs that never exceed the OTC.

CRT 1, Hindow 1 SCC_AGC_OTC AGC_RHS.DEIN									
WECC RELIABILITY MANAGEMENT SYSTEM OPERATING TRANSFER CAPABILITY (OTC) MONITORING ON INTERTIES									0F 2
AGC OTC CONTROL ON MAX FREQUENCY DEVIATION 0.50 HZ MAX ACE VALUE 275 MW									
PATH NAME	ТҮРЕ	MANUAL	VSA	TSA	TSS		отс	SCHED TRANSFER	ACTUAL TRANSFER
			USE VSA LIMITS NO						
BC-US PATH (5151, 5152, 21112 AND 711):					BCH USE TSS LIMI			- 51	35
US TO BC OTC (TRM = 50)	STABILITY	2000	2000	2000	2000		2000		
	THERMAL	2000					2000		
BC TO US OTC (TRM = 50)	STABILITY	3150	3150	2800	2800		2800		
	THERMAL	3150					3150		
BCH PPA									
BC-ALBERTA PATH (5L94 AND NTL TIE):					USE TSS LIMI			80	9 2
ALBERTA TO BC OTC (TRM = 65)	STABILITY	800		700		365	365		
	THERMAL	800					800		
BC TO ALBERTA OTC (TRM = 90)	STABILITY	850		1160		640	640		
	THERMAL	850					850		
TO IGNORE A 'THERMAL' LIMIT ENTER -1 IN THE MANUAL FIELD FOR THE LIMIT Manual Entry									
							800		
							850		
PLANT CNTL	UNIT CNTL	AGC INDEX		OVERVIEW OVERVIEW		SHEDDING ENA MENU		NA MENU	

# **Total Transfer Capability**

BCTC operates the system and computes TTC in accordance with the methodologies and criteria specified by NERC and WECC

#### **BCTCs definition of Total Transfer Capability (TTC):**

• The amount of electric power that can be moved or transferred reliably from one area to another area of the interconnected transmission systems by way of all transmission lines (or paths) between those areas under specified system conditions.



## **More Specifically**

#### **BCTC determines TTCs to meet the following conditions:**

- The existing steady-state, or equivalently the pre-contingency state, of any system configuration must be steady state stable with normal operating procedures in effect. In addition, all system loading and voltages must be within normal limits.
- The network must be transiently stable after a single contingency event.
- The network must be steady state stable following a single contingency, prior to the time frame where control room operators are able to implement any system adjustments (typically 20 - 30 minutes).

Transient and voltage stability as well as thermal limit constraints limit the capability of the system; therefore, TTC is the minimum of these constraints



### Actual TTC Used

Each BA shall establish it's intertie limits on an hourly basis and compare with it's adjacent BAs. The lesser value of the two is used as the TTC for that hour.

This hourly TTC value sets the limit for the maximum amount of energy that can flow across a path in a given direction, thus it is used as the starting point for selling transmission services.

Future hours are always set and confirmed or adjusted to meet the above criteria.



### **TTC Coordination with AESO**

For each hour both AESO and BCTC establish TTC limits for path 1 based on its expected system conditions for the next scheduling hour

The TTC limits for various system configurations for path 1 from a BC perspective are listed in System Operating Order 7T-17, posted on the BCTC website at

http://www.bctc.com/the\_transmission\_system/system\_operating\_orders/

• What are the limits for 5L91 oos?

The OTC limit is set equal to the TTC for compliance monitoring. (AESO provides real-time analysis while BCTC uses TTC calculator.)



### **TTC Coordination with BPA**

For each hour both BPA and BCTC establish TTC limits for path 3 based on its expected system conditions for the next scheduling hour

The TTC limits for various system configurations for path 3 from a BC perspective are listed in System Operating Order 7T-18, posted on the BCTC website at

http://www.bctc.com/the\_transmission\_system/system\_operating\_orders/

• What are the limits for 5L41 oos?

The OTC limit is set equal to the TTC for compliance monitoring. (BPA uses nomograms while BCTC uses TTC calculator.)



# TTC Methodology

# Generally, BCTC applies n-1 criteria (system normal less one critical element) to determine Firm TTC

 Firm TTC is defined as the level that can continue to be served immediately after a single permanent forced outage

This requirement applies to the system with all facilities in service during all transfer conditions

In addition, the system with one element out of service during lighter transfers should be able to accommodate Firm TTC (RAS permitted)

Nominal Firm TTCs can be found in the Business Practices for each intertie


## Firm TTC

#### **Business Practices Section 2.0 TTC/ATC**

(http://www.bctc.com/transmission\_scheduling/business\_practices/)

- BCTC > AESO: 850 MW
- AESO > BCTC: 450 MW
- BCTC > BPAT: 1930 MW
- LM > BPAT: 1930 MW
- BPAT > BCTC: 1930 MW

#### **Other constraints may reduce transfer limits**



## **Operations and Outages**

#### TTC may be different from "expected" due to:

- Operational issues check bulletins and System Operating Orders
- Outages check Forced and Current Outages Webpage and Annual Maintenance Plan (<u>http://www.bctc.com/the\_transmission\_system/system\_outages/</u>)

#### **Check other Balancing Authority issues**

- Forced and current Transmission outages
- Planned Transmission outages (approved with 2 week window)
- Planned Transmission outages with annual maintenance plan



### **Interconnected Systems**

As mentioned, the Western Interconnection is operated in a coordinated fashion to enhance reliability.

This type of coordinated operation can cause situations to arise where the actual energy flowing across a path exceeds the scheduled amount.

If operating near the OTC limit this type of situation can "push" the Balancing Authority into an OTC violation.



## Transmission Reliability Margin (TRM)

#### TRM is used to minimize these types of OTC violations by "setting aside" a reasonable amount of capability to handle common operating situations

 TRM is defined as the amount of TTC necessary to ensure the interconnected transmission network is secure under a possible range of uncertainties in system conditions

760 MW TTC

695 MW of ATC

TRM 65 MW



## **Interconnected Operation no TRM**



### Interconnected Operation with TRM



## **Nominal TRM Values**

TRM is nominally set at 50 MW in each direction on the intertie with BPA

TRM is nominally set at 65 MW in each direction on the intertie with AESO



## Disturbances





## **Disturbance Criteria**

**ACE -** The instantaneous difference between a Balancing Authority's net actual and scheduled interchange. Measures the ability to balance the generation requirements to load. ACE is kept as close to zero as possible.

**DCS** – Disturbance Criteria Standard. WECC requires a Balancing Authority return its ACE to pre-disturbance value or zero within 15 minutes following a disturbance.



## Loss of a 400 MW generator

ACE and Net Interchange Deviation Chart



## Loss of 450 MW, then 450 MW again

ACE and Net Interchange Deviation Chart



## Frequency in a disturbance



## System Operating Orders (SOO)

BCTC defines how it will operate the BC Power system by Operating Orders (SOOs). (BPA uses Standing Instructions while AESO uses Operating Policies and Procedures (OPPs)).

Planning studies are transferred to SOOs to define limits. Protection operations (automatic operations) are captured in SOOs. Equipment limitations are captured in SOOs and LOOs.

BCTC reviews operations with all participants to ensure coordinated efforts are maintained. All of this defines how BCTC requires its Power System Dispatchers (and others) to operate the BC Power System.



## SOOs on BCTC's Internet Site

The Operation of the BC Electric System is governed by Operating Orders issued by BCTC or jointly issued by BCTC and other entities. Execution of Operating Orders is the responsibility of BCTC, other entities as specified and its service providers.

System Operating Orders (SOOs), Distribution Operating Orders (DOOs) and Local Operating Orders (LOOs) specify operation of the BC integrated electric system within the operating criteria specified by BCTC.

#### SOOs listed on the website

http://www.bctc.com/the\_transmission\_system/system\_operating\_orders/

- 100 series Policies
- 600 series Emergency
- 700 series Composite Network



## **SOO Application to Scheduling**

SOOs drive transfer limits. More than one SOO is usually involved.

For example:

- SOO 7T-17, Alberta path (7T-33, 7T-34, 7T-12, 7T-50, 7T-64)
- SOO 7T-18, US path (7T-40, 7T-13, 7T-33, 7T-34, 7T-12, 7T-50, 7T-64)

SOO 7T-64 defines technical requirements to be met that define limits. Overall concept when operating is to meet minimum criteria as defined for all entities.



## Looking Ahead...

#### **Transmission System Upgrades**

• ILM 500 kV line (NIC-MDN)

#### Sub-transmission additions to meet load and improve reliability

#### Wind generation

#### **SCMP (System Control Modernization Project)**

• Five Control Centers amalgamated into one with a dedicated backup center

#### **New constraints?**



## **Current System Control Center**



## **New Control Center**



## **New Control Center**



## Available Transfer Capability (ATC)



## **Available Transfer Capability**

#### Firm ATC

 $ATC_F = TTC_F - ETC_F - CBM - TRM$ 

#### Where,

ETC<sub>F</sub> : Firm Existing Transfer Commitments CBM : Capacity Benefit Margin TRM: Transmission Reliability Margin

#### For example: LM – BPAT

TTCF = 1930 ETCF = 230 + 370 = 600 TRM = 50 CBM = 0; then, ATCF = 1930 - 600 - 0 - 50 = 1280



## **Available Transfer Capability**

#### **Firm ATC**

 $ATC_{NF} = TTC - ETC_{F} - CBM - TRM - ETC_{NF} + ETC_{UF}$ 

#### Where,

ETC<sub>NF</sub> : Non-firm Existing Transfer Commitments

ETCUF : Unscheduled Firm Existing Transfer Commitments

#### For example: LM – BPAT

TTC = 3150ETCF = 230 + 370 = 600; TRM = 50; CBM = 0; ETCNF = 100ETCUF = 350Then, ATCNF = 3150 - 600 - 0 - 50 - 100 + 350 = 2750



## Available Transfer Capability

#### **NERC** Proposals







## **Market Operations**

# Market Operations is the department within BCTC that provides:

- Transmission Services:
  - Network Integration Transmission Services (multiple POD/POR)
  - Point-to-Point (single POD/POR)
- Interconnection Services:
  - Interconnection Studies
  - Interconnection Requirements
  - Construction & Interconnection
- Theses services are provided under OATT
- Clarified by Business Practices



## **Network Integration Transmission Service**

- Long-Term Firm
- Standard 10-year term
- PORs and PODs
- Load / Resource Balance



## Point-to-Point (PTP)

#### **PTP Transmission Service**

- PTP can be Firm (long- or short-term) or Non-Firm
- Short-Term Firm and Non-Firm
  - Less than 12 months
- Long-Term Firm
  - 12 months or longer
  - Rollover Rights
- Take-or-Pay based on reservation capacity
- POR and POD (Scheduling Points: may or may not be physical points)





## Long-Term Transmission Scheduling





# Section 15 sets out BCTC's Long-Term Business Practice, which is located on our website at

http://www.bctc.com/NR/rdonlyres/4EEFF805-EDA2-4975-89C5-FFEAA750BDB7/2046/2006Nov6Section15updated.pdf

- BCTC will conduct a study to determine ATC and determine whether or not a System Impact Study (SIS) is required
- BCTC will offer one of the following:
  - Full service
  - Partial service and a SIS Agreement
  - Shaped Service and a SIS Agreement
  - A SIS Agreement



#### **Business Practice Section 15**

- Partial service and a SIS Agreement
  - Customer may execute either the agreement or both
  - If customer doesn't execute the partial service agreement, the request is deemed withdrawn
- Shaped service and a SIS Agreement
  - Customer may execute either the agreement or both
  - If customer doesn't execute the shaped service agreement, the request is deemed withdrawn



#### SIS to answer the following questions:

- What new Network Upgrades are required to provide requested service in full?
- Are Re-dispatch options available?



#### **Facilities Study to determine:**

- Cost of Network Upgrades identified in SIS
- Customer's share of the costs
- Timelines



## **Procedures and Timelines**



## **Procedures and Timelines**



### **Procedures and Timelines**

#### **Complete Timeline**


#### **Rollover Rights:** (OATT Sec. 2.2 & Business Practice Sec. 16)

- Submit a new request for Rollover at least 60 days prior to End Date (Rollover Request)
- Prior request for a longer term and for the same capacity (Competing Request)
- Both requests have the same Start Time
- Rollover Request has a Right of First Refusal (ROFR) to match term
- The last Rollover Request is required to match first



## Long-Term PTP

#### **Rollover Rights**



## **Rollover Rights**







#### **Rollover Rights:**

#### Example 1:

- Customer A has a 1-year contract for 100 MW (1 Jan 07 End Date)
- There are 200 MW ATC
- Service Requests:

**Building Connections** 



#### **Rollover Rights:**

#### Example 1:

- Based on queue positions:
  - 1. Customer B: 200 MW for 5 years
  - 2. Customer A: 0 MW



#### **Rollover Rights:**

Example 1:

- Based on Rollover Rights
  - 1. BCTC counteroffers Customer B (200 MW for 5 years)
  - 2. If Customer B confirms
  - 3. BCTC asks Customer A to match
  - 4. If Customer A matches:
  - Customer A: 100 MW for 5 years
  - Customer B: 100 MW for 5 years



#### **Rollover Rights:**

#### Example 2:

- Customer A has a 1-year contract for 100 MW (1 Jan 07 End Date)
- Customer B has a 1-year contract for 100 MW (1 Jan 07 End Date)
- There are 200 MW ATC
- Service Requests:

Queue Postion	Customer	MW	Start Date	End Date	Term	Type of Request
1	С	100	01-Jan-07	01-Jan-12	5 years	New
2	А	100	01-Jan-07	01-Jan-08	1 year	Rollover
3	В	100	01-Jan-07	01-Jan-08	1 year	Rollover



#### **Rollover Rights:**

#### Example 2:

- Based on queue positions:
  - 1. Customer C: 100 MW for 5 years
  - 2. Customer A: 100 MW for 1 years
  - 3. Customer B: 0 MW



#### **Rollover Rights:**

#### Example 2:

- Based on Rollover Rights, Customer B is asked to match first:
- If Customer B matches:
  - Customer B: 100 MW for 5 years
  - Customer A is asked to match next
- If Customer B refuses to match:
  - Customer A: 100 MW
  - Customer B: 0 MW
  - Customer C: 100 MW



#### **Rollover Rights:**

#### Example 3:

- Customer A has a 1-year contract for 100 MW (1 Jan 07 End Date)
- Customer B has a 1-year contract for 100 MW (1 Jan 07 End Date)
- There are 200 MW ATC
- Service Requests:

Queue Postion	Customer	MW	Start Date	End Date	Term	Type of Request
1	С	200	01-Jan-07	01-Jan-12	5 years	New
2	А	100	01-Jan-07	01-Jan-08	1 year	Rollover
3	В	100	01-Jan-07	01-Jan-08	1 year	Rollover



#### **Rollover Rights:**

#### Example 3:

- Based on queue positions:
  - 1. Customer C: 200 MW for 5 years
  - 2. Customer A: 0 MW
  - 3. Customer B: 0 MW



#### **Rollover Rights:**

#### Example 3:

 Based on Rollover Rights, both Customer A and B are asked to match at the same time



#### **Rollover Rights:**

- Customer A has a 1-year contract for 100 MW (1 Jan 07 End Date)
- There are 100 MW ATC
- Service Requests:

(	Queue Postion	Customer	MW	Start Date	End Date	Term	Type of Request
	1	В	100	01-Jan-07	01-Jan-09	2 years	New
	2	С	100	01-Jan-07	01-Jan-12	5 years	New
	3	А	100	01-Jan-07	01-Jan-08	1 year	Rollover



#### **Rollover Rights:**

- Based on queue positions:
  - 1. Customer B: 100 MW for 2 years
  - 2. Customer C: 0 MW
  - 3. Customer A: 0 MW



#### **Rollover Rights:**

- Based on Rollover Right, Customer A is asked to match a 2-year term for 100 MW
- If Customer A matches:
  - 1. Customer A: 100 MW for 2 years
  - 2. Customer B: 0 MW
  - 3. Customer C: 0 MW



#### **Rollover Rights:**

- If Customer B fails to confirm BCTC's counteroffer:
  - 1. Customer B is out of the Competing Process
  - 2. BCTC counteroffers Customer C (100 MW for 5 years)
  - 3. Customer C confirms
  - 4. BCTC asks Customer A to match a 5-year term



Open Season West-East Open Season

• BPAT-BCTC; BCTC-AESO; and BPAT-AESO

#### East-West Open Season

• AESO-BCTC; BCTC-BPAT; and AESO-BPAT

All transmission requests corresponding to Open Season paths within the window are deemed participating.

**Prior requests may elect to participate** 



#### **Request Priority**

- First-come first-served wrt existing ATC
- Same priority for Network Upgrades
- Study costs allocated pro rata
- ATC created allocated pro-rata



# Scheduling Tools





## **Short-Term Scheduling**

Transmission requested can be submitted to BCTC via the OATI Open Access Same-Time Information System (OASIS) website.

Once transmission is secured, energy schedules (eTag) can be submitted to BCTC via the OATI Energy Tagging System (ETS) website.

BCTC will process requests automatically through its Transmission Scheduling System (TSS) based on BCTC's OATT and Business Practices.



## Transmission Scheduling System (TSS)

BCTC's TSS enables the management of OASIS requests and eTags. TSS is automated to implement our OATT and Business Practices. It also:

- Processes a high volume of transmission and energy transactions
- Frequently calculates and posts TTC/ATC to OASIS
- Posts prices to OASIS
- Changes OASIS status (MATCHING, REBID, COUNTEROFFER, etc.)
- Changes eTag status
- Performs curtailments
- Performs displacements
- Provides audit trail of all transactions



**Open Access Same-Time Information System (OASIS)** 

Developed in compliance with the Federal Energy Regulatory Commission (FERC)

Electronic bulletin board that enables customers to purchase transmission services on an open access non-discriminatory basis

**Provides transparency and an audit trail** 

All requests by customers for transmission service must be submitted on OASIS

BCTC utilizes OASIS and TSS to provide transmission services to its customers



# Electronic Tagging System (ETS)

Electronic tagging is the mechanism through which energy interchange information throughout North America is documented and communicated between all market players and is an integral component of the energy market

eTagging is governed by the North American Electric Reliability Council (NERC) and was implemented in September 1999

#### ETS is used by majority of entities with NA

- Tough to accurately track schedules from source to sink
- Disconnect between the physical and non-physical market
- Because of this disconnect, the need to track deals from source to sink was born









BC Transmission CORPORATION Building Connections

#### **BCTC subscribes to OATI for its OASIS services**

- The URL for the production OASIS is <u>https://www.oatioasis.com</u>
- Click on "https://www.oatioasis.com"
- Click on Production Node Login



# Enter password and click "Login" – this accesses the digital certificate





#### **Click on wesTTrans.net icon**



As a reminder, OATHT staff will be performing routine maintenance on network hardware components which will affect access to the OATI webOASIS on Tuesday October 24, 2006. There will be two brief periods the first of which is expected to last for up to 10 minutes from 2:05 – 2:15 AM CDT, and the second period of outage will occur from 2:35 to 2:50 AM CDT. If you have any questions or concerns, please contact the OATI Helpdesk at 763-201-2020 or support@oati.net.

Previous OASIS Updates (10/11/2006)

OASIS Release 3.2.05



## **BCTC OASIS Front Page**

#### Select and click on BCTC in the "Select Provider" window



#### Submitting a Transmission Request on OASIS

#### To request transmission you need to:

- 1. At the main page, select "Reservations", then select BCTC as the Service Provider
- 2. Click on "Enter"
- 3. Select TSR
- 4. Use scroll down menus to specify and submit the following:
  - Day/Hour/Week/Month/Year;
  - Service Class;
  - Type;
  - Time Period;
  - Path Name;
  - Point of Receipt / Point of Delivery
  - Start and Stop Times



#### Submitting a Transmission Request on OASIS



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## **Posting Reference Numbers**

Each posting on OASIS has a reference number which can be used for audit purposes

These are the numbers you will use for all correspondence with BCTC as the transmission provider

Other associated information – Seller and its DUNS number, POR/POD, capacity, and price

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Selected time range: 2006-11-06 00:00 PS to 2099-12-31 23:59 PS											
Posting Ref	Provider	Updated Time ↓	Seller	Seller Duns	Path	POR	POD	Interface Type			
490466254	встс	2006-11-05 07:41:56 PS	BCTC	205147817	W/BCTC/BCTC - AESO//	BCTC.NETWORK	AB.BC		2		
47 033030Z	встс	2006-11-05 07:42:01 PS	BCTC	205147817	W/BCTC/BCTC - AESO//	BCTC.NETWORK	AB.BC		2		
479313878	BCTC	2006-11-05 07:42:01 PS	BCTC	205147817	W/BCTC/BCTC - AESO//	BCTC.NETWORK	AB.BC		2		
490956514	BCTC	2006-11-06 07:41:52 PS	BCTC	205147817	W/BCTC/BCTC - AESO//	BCTC.NETWORK	AB.BC		2		
476830404	BCTC	2006-11-06 07:41:58 PS	BCTC	205147817	W/BCTC/BCTC - AESO//	BCTC.NETWORK	AB.BC		2		
477324201	BCTC	2006-11-06 07:41:58 PS	BCTC	205147817	W/BCTC/BCTC - AESO//	BCTC.NETWORK	AB.BC		2		
477834390	BCTC	2006-11-06 07:41:58 PS	BCTC	205147817	W/BCTC/BCTC - AESO//	BCTC.NETWORK	AB.BC		2		
478283190	BCTC	2006-11-06 07:41:58 PS	BCTC	205147817	W/BCTC/BCTC - AESO//	BCTC.NETWORK	AB.BC		2		



# **Reserving Transmission**





## **Types of Requests**

Preconfirmed Yes transmission requests are set to CONFIRMED by BCTC immediately if ATC is available

Preconfirmed No transmission requests are set to ACCEPTED by BCTC immediately if ATC is available. The customer must, in turn, confirm the request within the timelines for the request to be CONFIRMED

Transmission customer does not pay unless request is confirmed

For more information on request timelines, refer to BCTC's Business Practices



## Submitting a Request - First Way

On the Reservations Page select "New TSR". Can also quickly narrow request down to next hour or next day

- Advantage able to build a custom profile
- Disadvantage no information of ATC availability

					R	leser	vatio	on Summary	fo
Cust	ALL	~	Incr	ALL	~	Path			
TP	встс	~	Class	ALL	~	Status	ALL		~
Seller	ALL	~	Туре	ALL	~	Time	Start	🖌 Any time	~
	ew TSR		More	Filtering		User P urly Sum	lange Imary	Columns Sa	₃ve

BCTC Tim PS	e Zone					Reser	vation E	Entry F
встс 💌	Select Provider			Enter TSR	Clea	ar Form	C	Save As Te
Seller	Source * Sink *	PO PO	R D	Service *		Request Type	t Star	t << >
встс 🛩		~	~		i i		11/06/	2006
Custome	er 👘	Р	ath *					
					~			
						25Hr	24Hr	
					<u></u>			
## Submitting a Request - Second Way

#### Use the Posting Ref number at the left of your offerings query

TP	BCTC 💌	* Incr ALL 🔽	Peri /	ALL 🗸	POR ALL	💌 * Path	ALL		¥	
Sell	ALL 🔽	* Class NON-FIRM 🛛 💌	Win /	ALL 💌	POD ALL	💌 * Daylig	ght Savings	🗹 Show Active Da	ta 🗌	
Ref		Type ALL 💡	🖌 Sub /	ALL 🔽	Time Start	🔽 Tomorrow fwd	1	Enter		
		New Posting U	Jser Rang	e Column	s Hourly Su	ımmary Save	Query	¥		
			Sprea	dsheet D	ownload CSV	Upload CSV				
		Selected	time rai	nge: <b>2006-1</b> 1	I-09 00:00 PS	to 2099-12-31	23:59 PS			
Posting Ref	Provider	Updated Time ↓	Seller	Seller Duns		Path		POR	POD	In
477832694	BCTC	2006-10-10 07:38:33 PD	BCTC	205147817	W/BCTC/BCTC	- BCTC//		BCTC.INTERNL	BCTC.INTERNL	
478281495	BCTC	2006-10-11 07:38:45 PD	BCTC	205147817	W/BCTC/BCTC	- BCTC//		BCTC.INTERNL	BCTC.INTERNL	
478791462	BCTC	2006-10-12 07:38:40 PD	BCTC	205147817	W/BCTC/BCTC	- BCTC//		BCTC.INTERNL	BCTC.INTERNL	
479312158	BCTC	2006-10-13 07:38:38 PD	BCTC	205147817	W/BCTC/BCTC	- BCTC//		BCTC.INTERNL	BCTC.INTERNL	
479314239	BCTC	2006-10-13 07:45:06 PD	BCTC	205147817	W/BCTC/BPA	- BCTC//		BC.US.BORDER	BCTC.NTWK.LD	
479702710	БСТС	2006-10-14 07:38:44 PD	BCTC	205147817	W/BCTC/BCTC	- BCTC//		BCTC.INTERNL	BCTC.INTERNL	



# Submitting a Request cont'd

#### Enter the rest of the information for your request and hit "Submit"

		Transmiss	sion Of	ffering			
Create TSR	Subr	nit Prev Time		Next Tin	ne	Audit	Close
PostingRef	477832694			Path	W/BCT	С/ВСТС - ВСТО	D//
Provider	BCTC			POR	BCTC.I	NTERNL	
Seller	BCTC			POD	BCTC.I	NTERNL	
Duns	205147817		Ir	nterface			
Offer Start Time	Year Mon 2006 • 11 •		Z Sta	art Time	Year 2006 💌	Mon Day 11 🔽 09 🔽 00	H M TZ
Offer Stop Time	Year Mon 2006 🗸 11 🗸	Day H M T	Z Sto	op Time	Year 2006 💌	Mon Day	H M TZ
Ceiling Price	5.30		С	apacity	3000		
Price Units	\$CDN/MWh		Off	er Price	5.30		
		Transmiss	sion Sen	vice:			
Increment	Class			Perio	d	Window	Subclass
DAILY	NON-FIRM	POINT_TO_POIN	1T	FULL_PE	ERIOD	FIXED	
Ar	nc Svc Reg						
	Sale Ref						
Nore Curtailm	ant Briarity					Other Curteile	aant Driarita
Service [		ATLY NON ETDE DOTHE			DIOD FIN		
Service	Commente	AILT, NON-FIRM, POINT_	IO_POINT	,FOLL_PER	(100,112	ED	
La	st Updated	2006-10-10 07:38:33 PD					
		Ŷ	•				

BC Transmission

**Building Connections** 

### **OASIS Status Definitions**

**QUEUED** – initial status assigned by OASIS on receipt

WITHDRAWN – assigned during the evaluation process to indicate said request has been withdrawn

ACCEPTED – assigned to indicate the service request has been accepted

**RECEIVED** – assigned to acknowledge queued request and indicate the request is being evaluated

**STUDY** – assigned to indicate some level of study is required to evaluate the request



**OASIS Status Definitions cont'd** 

COUNTEROFFER – assigned to indicate that Capacity Granted is less than Capacity Requested

**REBID** – assigned to indicate that a new Bid Price is being proposed

SUPERSEDED – assigned to indicate a request which has not yet been confirmed is displaced by a higher priority reservation

**REFUSED** – assigned to indicate service request has been denied due to lack of ATC or received outside of the reservation timelines



## **OASIS Status Definitions cont'd**

**CONFIRMED** - assigned to indicate the transmission reservation exists

**DECLINED** - assigned to indicate terms and conditions such as Bid Price are unacceptable and that negotiations have been terminated

**INVALID** - assigned to indicate an invalid field is in the request

**DISPLACED** - assigned to indicate a customer has been displaced by a higher priority reservation



### **OASIS Status Definitions cont'd**

ANNULLED – assigned to indicate a confirmed reservation is to be voided as agreed to by both parties, the customer and the provider

**RETRACTED** – assigned to indicate a customer failed to confirm or withdraw the request within the required time period



#### **Reservation Number**

Once submitted, you will receive an OASIS reservation number for your request

This number is different than the posting reference number

You will also receive a status of your request



## **Service Definitions**

<u>Monthly</u> transmission request must have a flat MW profile for all hours in a calendar month up to 11 continuous months

<u>Weekly</u> transmission request must have a flat MW profile for all hours in a 7 day period (week) up to 4 continuous weeks

**Daily** transmission request must have a flat MW profile for all hours in a calendar day up to 6 continuous days

Hourly (pre-schedule) transmission request must have a flat MW profile for one hour up to 24 hours in a single calendar day

Hourly (real-time) transmission request must have a flat MW profile for one hour up to 24 hours in a single calendar day

**Long-Term** transmission request must be for periods of one year or longer, and must have a flat MW profile

Yearly(s) transmission request is a subset of a long-term transmission request and must have a flat MW profile for all hours of a calendar year e.g. 00:00:00 January 1, 2006 – 00:00:00 January 1, 2007



# **Scheduling Submission Timelines**

#### In general requests for:

- <u>Monthly</u> service shall be submitted no earlier than sixty (60) days before service is to commence
- <u>Weekly</u> service shall be submitted no earlier than fourteen (14) days before service is to commence
- <u>Daily</u> service shall be submitted no earlier than two (2) Working Days before service is to commence
- <u>Hourly</u> service for Tuesday to Friday shall be submitted no earlier than 00:00:00 the Working Day before service is to commence. Request for hourly service for Saturday shall be submitted no earlier than 00:00:00 the preceding Thursday. Request for hourly service for Sunday and Monday shall be submitted no earlier than 00:00:00 the preceding Friday.
- Holidays, as posted on OASIS, will affect the aforementioned bidding windows for the earliest submission timeline for hourly and daily service. For example, if a NERC holiday falls on Monday, transmission requests for hourly service can be submitted as early as 00:00:00 Friday for the following Tuesday.

Industry Standards have been developed to accommodate entities that operate on a 5-day basis. Thus, BCTC has implemented "Extended Windows" to accommodate this Standard, as indicated above in the example of hourly service.



# **Scheduling Confirmation Timelines**

BCTC has reduced confirmation timelines to accommodate industry energy scheduling practices

Class	Service Increment	Time QUEUED Prior to start	Customer Confirmation Limit after Accepted		
Non-Firm	Hourly	<> 1 Hour	5 minutes		
Non-Firm	Hourly	Day ahead	10 minutes		
Non-Firm	Daily	N/A	10 minutes		
Non-Firm	Weekly	N/A	30 minutes		
Non-Firm	Monthly	N/A	2 hours		
Firm	Hourly	<> 1 Hour	5 minutes		
Firm	Hourly	Day ahead	10 minutes		
Firm	Daily	N/A	10 minutes		
Firm	Weekly	N/A	30 minutes		
Firm	Monthly	N/A	2 hours		

#### **Confirmation Timeline Table**



## **Scheduling Practices**

#### **Pre-schedule Bidding Windows and Practices**

TSS automatically processes Day+1 transmission requests from 00:00:00 up to 07:29:59. Day+1 ATC posted during this period is available immediately for purchase. Request on OASIS – Pre-schedule Midnight Posting, for restrictions related to price.

Between 07:30:00 and 07:59:59 when TTC/ATC and prices are computed and posted, transmission requests are not permitted and any request with a queued time within these times will be deemed INVALID.

Between 17:00:00 and 17:30:00 TTC/ATC values are updated and posted for Day+1 and beyond. Transmission requests are not permitted while the posting is occurring and will be deemed INVALID.



## **Posting Frequencies**

Transmission Prices for future days are updated and posted daily on OASIS along with the Day+1 TTC/ATC posting each morning

ATCs are posted differently depending on the actual time from a pre-schedule (Day +1) perspective

ATCs are posted as frequently as possible, but at least every 5 minutes from a real-time perspective

For more information on posting frequencies, refer to BCTC Business Practice Section 4, which is located on our website at <u>http://www.bctc.com/NR/rdonlyres/110565A7-54CB-4579-8A21-</u> CC062A198C8D/0/042006Mar1FinalSection4.pdf.



# All Short-Term PTP transmission service prices are uploaded to OASIS each morning as mentioned previously.

#### **General Price Concepts:**

- The price for Short-Term (ST) PTP transmission service to load serving points within BC are <u>NOT</u> discounted
- Export and wheelthrough PTP transmission services are discounted



# **Discounting Price Methodology**

#### Discounted ST Hourly Service is a minimum price of \$0\* and a maximum price of the non-discounted hourly price for ST Service

- Where:
  - Exchange rate is the daily Bank of Canada exchange rate for converting Mid-C price to the Canadian equivalent
  - AESO price is a volume-weighted average of hourly prices for each previous day's HLH and LLH period
  - Mid-C price is based on the published Firm index provided by Dow Jones for each previous day's HLH and LLH period
  - Loss Factor for BPA is determined by BPAT's loss factor to Mid-C
  - Loss Factor for Alberta is determined by the loss factors provided by AESO at <u>http://www.aeso.ca/transmission/144.html</u>
- All inputs to calculate Day+1 price are taken from Day-1 unless Day-1 data points are absent, in which case the last available values are used

\*Minimum charge of \$55.00 per transaction applies when transmission charge plus RS03 is less than \$55.00



# Hourly Firm service price is calculated using the following formulas:

- For transactions delivering to US, the Discounted ST Firm Price for Hourly Service is:
  - [Mid-C Price \* exchange rate) (AESO Price \* Loss Factor for AB \* Loss Factor for BPA] / 4
- For transactions delivering to Alberta, the Discounted ST Firm Price for Hourly Service is:

```
[AESO Price – (Mid-C * exchange rate * Loss Factors for AB * Loss Factor for BPA)] / 4
```

 The Discounted ST Firm Hourly Service Prices are bounded by a minimum of \$0 and a maximum that equals the nondiscounted hourly price for ST Service.



#### **Hourly Non-Firm Service Price**

 For transactions delivering to US, the Discounted ST Price for Hourly Non-Firm Service is:

Discounted Hourly Firm Service Price for US – \$1/MW

- For transactions delivering to Alberta, the Discounted ST Price for Hourly Non-Firm Service is: Discounted Hourly Firm Service Price for Alberta – \$1/MW
- The Discounted ST Non-Firm Hourly Service Prices are bounded by a minimum of \$0 and a maximum that equals the non-discounted hourly price for ST Service.



#### **Daily Firm and Non-Firm Service Price**

- The Discounted ST Firm Price for Daily Service is equal to the average of the 24 Discounted ST Firm Prices for Hourly Service.
- The Discounted ST Non-Firm Price for Daily Service is equal to the Discounted ST Firm Price for Daily Service <u>minus \$1/MW</u>.



## **Weekly Firm and Non-Firm Formulae**

Week 1:

- Firm equals Discounted ST Firm Price for Daily Service + ½ of (nondiscounted Hourly price for ST Service – Discounted ST Firm Price for Daily Service)
- Non-Firm equals Discounted ST Firm Price for Daily Service minus \$1/MW

Week 2+:

• Firm and Non-Firm equals non-discounted Hourly price for ST Service



## **Displacements**

Displacement occurs when a request for transmission service of a higher priority (longer duration), regardless of MW amount, is subsequently received and which could potentially displace a lower priority request.

 Higher priority request is received during conditional periods where there is limited ATC

Under certain competing circumstances transmission requests receive Right of First Refusal (ROFR)

• ROFR based on duration or price

The displacement process only occurs in pre-schedule This functionality will be described in further detail subsequent in this presentation



#### **Redirect and Revert**

A Long- or Short-Term Firm transmission reservation (CONFIRMED transmission request) has the right to change the Point of Receipt (POR) and/or Point of Delivery (POD) on a Non-Firm basis at no additional transmission cost (only applicable ancillary charges will apply).

The new Non-Firm service is classed as Secondary, and is therefore the first service to be curtailed and/or interrupted to accommodate other Non-Firm and Firm transmission requests.

Once the POR/POD has been changed, the owner of the Secondary transmission service retains the right to re-designate back to the original Firm service specifications at any time within the Transmission Scheduling Timelines (refer to Section 5.3).

Note: When a request for Secondary (Redirect) is CONFIRMED, BCTC leaves the original Firm reservation whole but decrements its Available Energy Capacity (AEC) by the amount of the Redirect. This secures the ability to revert back to the original Firm service if requested as well as ensuring that the redirected Firm amount cannot be scheduled on.



## **Redirect and Revert**

Changing from Firm to Secondary and changing from Secondary back to Firm are both achieved by submitting a Redirect on OASIS

#### **Redirects are subject to the following rules:**

- All Redirect transmission requests must be Pre-confirmed.
- The transmission request should have a price equal to zero and a note in the Customer comments field stating the request number of the original request.
- A Redirect to Secondary can be made for a portion of the Firm transmission reservations' reserve capacity and/or a portion of the time period.
- Customers who have Firm transmission are permitted to create one or more secondary paths of alternate POR/POD. However, they will need a Redirect for each new path.



## **Redirect and Revert**

To redirect back to Firm service the Redirect request must fulfill the following conditions:

- Service must be Firm; and
- POR/POD must be identical to that of the original request.

To accomplish this task the Customer must go to its CONFIRMED redirected transmission reservation, select the "Redirect TSR" button at the top of the window and change POR, POD, path, service and/or price back to the original. The Customer should then submit these changes.

Partial reverts (MW and duration) are allowed.

**Redirects are subject to Transmission Scheduling Timelines (refer to Section 5.3).** 

A Customer who has purchased transmission service at a discount is prohibited from changing the POD to a POD that BCTC does not offer at a discount. The REDIRECT will have the status INVALID applied. Therefore, Customers who want to change to a nondiscounted POD must have purchased the original service at the Tariff maximum rate.

Redirects and reverts will be refused if there is insufficient AEC on the reservation to allow the redirect or revert.



### **Resale and Reassignment**

Another right owners of transmission service have is being able to sell, assign, or transfer all or a portion of their rights under their Umbrella or Service Agreements, but only to another eligible customer

#### Compensation to the reseller shall not exceed the higher of:

- 1. The original rate paid by the reseller;
- 2. The transmission provider's maximum rate on file at the time of the assignment; or
- 3. The reseller's opportunity cost capped at the transmission provider's cost of expansion.

When purchasing reassigned transmission, the Assignee (buyer) will receive the same services and priority as did the original Customer (seller) and the priority of service for the Assignee will be the same as that of the reseller.

If the Assignee requests a change in service, the transmission request will be processed as per business practices associated with changing a Transmission Reservation (Redirect).

A Customer may only reassign CONFIRMED transmission reservations (not ACCEPTED, COUNTEROFFER, RECEIVED or STUDY). And can do so in one of two ways:

- 1. Post for Resale or Resale to One Purchaser on OASIS; or
- 2. Blind Reassignment off OASIS.



#### **Mixed Class Wheelthrough**

A Mixed Class Wheelthrough is a single reservation (BPAT>AESO) joining two paths (BPAT>BCTC and BCTC>AESO)

Mixed Class Wheelthrough is offered at the same firm price as BPAT > AESO wheelthrough service





# e-Tag

e-Tags must be used by all BCTC transmission customers to communicate and approve all energy schedules for a given hour

# BCTC utilizes ETS and TSS to process e-Tags received on behalf of its customers



# **Using Transmission Profiles**

Customers can specify the transmission on their e-Tag using one of three different approaches:

- Specific OASIS reservations on the tag
- The Blanket feature to utilize all OASIS reservations from a specific class of transmission to support the capacity committed in an associated profile
- The Super-Blanket feature to utilize all OASIS reservations from all classes of transmission to support the capacity committed in an associated profile



# Entering an e-Tag

Enter Tag	Enter Delaye	d Tag	Sav	ve as Template C	ustomize Lists	Clear Form Help	<b></b>		
GCA PS	Tag Informatio	on Code	LCA	Time Zone PD 🗸	]				
BCTC BCT	c sccsi	153	BPAT	This is a test tag	z				
	Contact Informa	tion		Link this tag to i	its predecessor				
PSE Code	BCTC			Turn an ation town as					
PSE Contact	BONNIE_MITC	HELL		Normal	Emergency OSch	edule			
PSE Phone	(604)473-2723			O Dyn. Sched.	Loss Supply				
PSE Fax	(604)696-9886		$\langle \rangle$						
Gen Contact	Control Area P	reschedule				Market Path			
Gen Phone	(604)473-2723			PS	E	Product	Contract	Mise	: Sel
Gen Fax	(604)696-9886			BCPS01	<u>▼ *</u>	G-NF 🖌 \star	SPIN	No	0
Load Contact	Tagging Mailb	ох		BPAT	*	G-NF 🚩 \star		No	0
Load Phone	(360)418-2878			nsert Rows		Inse	ert Above Insert Be	elow Delete R	w Clear
Load Fax	(360)418-8740				• • •	•			
Comment	tssdst				h tag gets	s a uniqu	ie tag		
Contract No.				• 1		• 1 1			
			Cle	ar iden	tifier ser	ial num	ber		
				Phy	ysical Path				
CA	TP	PSE		POR	POD	Sched Enti	ties Contract	Misc Lo	ss Sel
ВСТС 💌 \star	Gen	BCPS01	~	Source: BCHA	~	*		No	
	ВСТС 💌 \star	BCPS01	*	KI 💌 \star	BC.US.Border	BCTC(TP)	*	No	★ ★ ○
BPAT 💌 \star	Load	BPAT	~	Sink: BPAT-CA-D	efault 🛛 🔽 💌			No	

# **Contact Information**

Enter Tag		Enter Delaye	d Tag	Save	e as Template	Custo	omize Lists	Clear Fo	rm Help				
		Tag Informati	on		Time Zone	PD 🔽							
GCA	PSE	Tag	Code	LCA									
BCTC	BCTC	SCCS	153	BPAT	✓ This is a	test tag							
					Link this	tag to its p	redecessor						
PSE Code		<b>Contact Informa</b> BCTC	tion			Transaction type:							
PSE Contact	t /	BONNIE_MITO	HELL		Iransaction     One Normal	Normal      Emergency      Schedule							
PSE Phone		(604)473-2723			O Dyn. Sc	hed. OLc	oss Supply	100000					
PSE Fax		(604)696-9886											
Gen Contact	t	Control Area P	reschedule					Mai	rket Path				
Gen Phone	on : (604)473-2723				PSE		Pr	oduct		Contract	1		
Gen Fax		(604)696-9886			BU						SPIN	]	
Load Contuc	rt	Tagging Mailb	ox		BH		*	G-N	· ·	1.01			
Load Phone		(360)418-2878		/	Insert Rows				Inse	ert Abov	Insert Be		
Load Fax		(360)418-8740				•				-			
Comment		tssdst				onta	act info	rma	tion s	sho	uld		
Contract No	-				h	0.011	tomotic		anha		tad		
				Clea		e au	iomatic	any	subn		lea		
						Diane	1 Dath						
CA		TP	PSE		POR	r nysic:	POD		Sched Entit	ties	Contract	Misc	
встс 💌	*	Gen	BCPS01	~	Source: BCH	А	~	*				No	
		BCTC 🔽 <u>*</u>	BCPS01	~	КІ	*	BC.US.Border	*	BCTC(TP)	*		No	
BPAT 🔽	*	Load	BPAT	~	Sink: BPAT	-CA-Defau	ilt 🔽 🔽	*				No	

# Market Path (Customers)

Enter Ta	g	Enter Delayed Tag	Save as	S Template Customize Lists Clear Form Help
		Tag Information		
GCA	PSE	Tag Code	LCA	Time Zone PD
BCTC	BCTO	SCCS055	BPAT	✓ This is a test tag
				Link this tag to its predecessor
		Contact Information		
PSE Code		BCTC		Transaction type:
PSE Contac	c t	BONNIE_MITCHELL		⊙Normal ○Emergency ○Schedule
<b>PSE</b> Phone		(604)473-2723		ODyn. Sched. OLoss Supply
PSE Fax		(604)696-9886		
Gen Contac	nt	Control Area Preschedule		Market Path
Gen Phone		(604)473-2723		PSE Product Contract Misc
Gen Fax		(604)696-9886		BCPS01 <u>*</u> G-F <u>*</u> No
Load Conta	ct	Tagging Mailbox		BPAT ¥ G-F ¥ * NO
Load Phone	•	(360)418-2878		Insert Above Insert Below Delete Row
Load Fax		(360)418-8740		
Comment		tssdst		Identifies which PSFs are
Contract N	<b>o.</b>			
			Clear	responsible for the flow of the energy

				Physi	ical Path				
CA	TP	PSE		POR	POD	Sched Entities	Contract M	lisc	Loss
BCTC 💌 \star	Gen	BCPS01	~	Source: BCHA	*			No	
	BCTC 💌 \star	BCPS01	~	KI 💌 \star	BC.US.Border 🛛 💌 \star	BCTC(TP) *		No	~

## **Physical Path (Transmission Lines)**

	Contact Information	
PSE Code	BCTC	
PSE Contact	BONNIE_MITCHELL	
PSE Phone	(604)473-2723	
PSE Fax	(604)696-9886	
Gen Contact	Control Area Preschedule	
Gen Phone	(604)473-2723	
Gen Fax	(604)696-9886	
Load Contact	Tagging Mailbox	
Load Phone	(360)418-2878	
Load Fax	(360)418-8740	
Comment	tssdst	
Contract No.		
		Clear

#### TTHIC HIRS CAR IN ItS PIECEESSOL

Transaction type: Normal
Emergency
Schedule
Dyn. Sched.
Loss Supply

			Mark	et Path					
	PSE		Prod	luct		Conti	ract	Misc	Sel
В	CPS01	*	G-F	*				No	$\bigcirc$
В	BPAT	*	G-F	*				No	۲
nsert Rows					Insert Abo	ove Inse	rt Below	Delete Row	Clear

#### Indicates the physical path the energy is scheduled to flow (source to sink)

				Physic	cal Path			
CA	TP	PSE		POR	POD	Scn. 1 Entities	Contract Mise	Loss Se
ВСТС 💽 \star	Gen	BCPS01	*	Source: BCHA	*		No	
	BCTC 💌 \star	BCPS01	~	KI 💌 \star	BC.US.Border 🛛 💌 \star	BCTC(TP)	No	* •
BPAT 🔽 💌	Load	BPAT	*	Sink: BPAT-CA-Defa	ult 💌 <u>*</u>		No	
Insert Rowe						Insert Above	Insert Below	Delete Row Clear

specify provider losses in physical path and enter generation profile below then click "Add Loss Profile" to create profiles in transmission segments

## **Energy Profile**

				Physi	ical Path						
CA	TP	PSE		POR	POD	Sched Entities	Contract	Misc	Loss	Sel	
BCTC 💌 \star	Gen	BCPS01	~	Source: BCHA	*			No			
	BCTC 💌 \star	BCPS01	~	KI 💌 \star	BC.US.Border 🛛 💌 \star	BCTC(TP) <u>*</u>		No	*	۲	$\sim$
BPAT 💌 \star	Load	BPAT	*	Sink: BPAT-CA-Defa	ault 💌 \star			No			
Insert Rows						Insert Abov	e Insert Be	elow	Delete Row Cl	ear	

Specify provider losses in physical path and enter generation profile below then click "Add Loss Profile" to create profiles in transmission segments

			<b>Profile Dates</b>			
Start Date		11/19/2	006 🚩 \star			
Stop Date		11/10/2				
⊠ S □ M □ 1	□w	<b>T</b>	F S A	1 Add Loss	Profile	
		Ene	ergy Profile (out	of)		
Start	St	m	MW	Ramp	Duration	Sel
6:00	22:00	)	5			0
						D
						$\circ$
						$\circ$
Insen Rows			Insert Above	Insert Below	Delete Row	Clear
24 Hours O. Peak	OffPeak	(			fad Another	Profile

#### Indicates the profile for the energy transaction

### **Transmission Reservations**

Transmission Allocation											
TP	Owner	Product	OASIS	MW	Sel						
BCTC 🗸	BCPS01 🛩 \star	7-F 💙 <u>*</u>	1453348	5	$\mathbf{i}$						
Insert Rows			Insert Above Insert	Below Delete Rout	Clear						

Transmission Allocation Profile Dates								
Start Date	11/19/2006 💌 \star							
Stop Date	11/19/2006 💌 \star							
S M T W								

Transmission Allocation Profile											
					BCTC						
Start		Stop		1453348			Sel				
6:00			22:00			5		۲			
								$\circ$			
								0			
								0			
Insert Rows		Insert Above		Insert Below D		Delete Rov	Clear				
							Add Anot	ther Profile			

User enters the transmission to be used to carry the energy from source to sink

# Valid Transmission

# Transmission reservations identified on an e-Tag must satisfy the following conditions:

- be confirmed in TSS
- in aggregate, have sufficient AEC to accommodate the energy schedule
- must specify wheelthrough or non-wheelthrough transmission reservations in the e-Tag, but not both

#### If these conditions are not valid, the e-Tag will be denied



#### **Transmission Profile**



۲

Building Connections

## **Generated Transmission Profile**



Transmission Profile is automatically generated

Building Connections
## Submit e-Tag

User then enters the e-Tag for approval by the various approval entities listed on the e-Tag

e-Tag vendor software packages provide various validity checks to ensure e-Tags are functionally correct before submittal



## Submitting e-Tag

				Lag Entry Form	
Enter Ta	.g E	Enter Delayed Tag	Save a	is Template Customize Lists Clear Form Help	
		Tag Information			
GCA	PSE	Tag Code	LCA	lime Zone	
BCTC	BCTC BCTC SCCS055 BPAT		BPAT	✓ This is a test tag	
				Link this tag to its predecessor	
	Co	ontact Information			
PSE Code	PSE Code BCTC			Transaction type:	
PSE Conta	et B	ONNIE_MITCHELL		Normal     Emergency     Schedule	
PSE Phone	(6	i04)473-2723		O Dyn. Sched. O Loss Supply	
PSE Fax	(6	04)696-9886			



#### Submitting e-Tag

Confirr	n 📔 Ba	ack 📔 H	[ Help ]			
	T L	. <b>6</b>				
l ag Information						
GCA PSE		Tag Code	LCA			
Dama	Dama	0000055				
BCTC	BCTC	SUCSUSS	BPAT			

Contact Information				
PSE Code	BCTC			
<b>PSE</b> Contact	BONNIE_MITCHELL			
PSE Phone	(604)473-2723			
PSE Fax	(604)696-9886			
Gen Contact	Control Area Preschedule			
Gen Phone	(604)473-2723			
Gen Fax	(604)696-9886			
Load Contact	Tagging Mailbox			
Load Phone	(360)418-2878			
Load Fax	(360)418-8740			
Comment	tssdst			

Time Zone: **PD** This is a test tag

Transaction type: Normal

Tag Original MWH at generator: 80

Market Path			
PSE	Product	Contract	
BCPS01	G-F		
BPAT	G-F		

				Physical Path		
CA	TP	PSE	POR	POD	Sched Entities	Contract
BCTC		BCPS01		Source: BCHA		
	BCTC	BCPS01	KI	BC.US.Border	BCTC(TP)	
BPAT		BPAT	Si	nk: BPAT-CA-Default		
		Profile Dates				
Start Date 11/19/200		106				
Stop Date		11/19/20	106			
S						
	_		_			

FRANKY Profile (out of)

#### e-Tag 1.8 – JISWG Industry Tutorial

## The basic features of e-Tag 1.8 are similar to the 1.7097 version





"Requests" are a basic of e-Tag

#### "New tag" requests are the initial submittal of a Request for Interchange

once fully approved, it becomes the e-Tag

#### There are "change" or "adjustment" requests

 a market adjustment and a reliability curtailment are two examples of change requests



There are "correction" requests which can be made while the overall state is still "PENDING"

Requests have status assigned by the authority service to describe their overall state

The e-Tag is a collection of one or more associated Requests



#### **Request states**

1.7097	1.8
<ul> <li>Pending</li> <li>Implemented</li> <li>Dead</li> </ul>	<ul> <li>Pending</li> <li>Approved</li> <li>Withdrawn</li> <li>Denied</li> <li>Expired</li> </ul>



Almost every request requires assessment and response from approval entities

# Each approval entity's response is assigned an approval state



#### **Individual Approval States**

1.7097	1.8
<ul> <li>NA</li> <li>Pending</li> <li>Approved</li> <li>Denied</li> <li>Study</li> </ul>	<ul> <li>NA</li> <li>Pending</li> <li>Approved</li> <li>Denied</li> <li>Study</li> <li>Expired</li> </ul>



The composite state indicates the overall state of the e-Tag



## e-Tag 1.8 Composite States

1.7097	1.8	
<ul> <li>Pending</li> <li>Implemented</li> <li>Dead</li> </ul>	<ul> <li>Pending</li> <li>Confirmed</li> <li>Implemented</li> <li>Cancelled</li> <li>Terminated</li> <li>Withdrawn</li> <li>Denied</li> <li>Expired</li> </ul>	



Formalization of the Time Classification schema element

# Authority Service assigns based on the relative ramp start and submittal time

- On-time
- LATE
- ATF



Improved loss calculations for reliability curtailments, only

In 1.7097 the Authority Service recalculated in-kind losses for a curtailment from the source BA to the sink BA, regardless of the curtailed segment

In 1.8 the curtailing entity will specify the segment with the restriction and the Authority Service will recalculate losses both up-stream and down stream of that segment



#### **Carbon Copy Field**

In 1.8 the Tag Author may specify other BAs, TSPs, or PSEs who need to know about the transaction but who are not listed in either the market or physical paths in the e-Tag

**Carbon Copy entities do not have approval rights** 



**Corrections to Products** 

In e-Tag, while a request is still pending, the tag author can make corrections to certain information

Any correction requires the re-assessment of the tag by impacted entities

The e-Tag specification defines who the impacted entities are based on the information being changed

Order 890 requires firm network transactions to be firm energy on firm transmission

The last TSP or sink BA may deny the tag if non-firm energy and/or transmission product codes are used For product code corrections, 1.8 will include the last TSP, sink BA, and LSE in the impacted entity list



#### **Corrections to Products (con't.)**

In 1.7097, impacted entities were defined as:

Correction Type	Impacted Entity
Any allowable correction to a Physical Generation Segment	Source BA, Generation Providing Entity
Any allowable correction to a Physical Transmission Segment or Transmission Allocation	Transmission Service Provider, Scheduling Entities (Intermediate BAs), Transmission Customer
Any allowable correction to a Physical Load Segment	Sink BA, Load Serving Entity
Any allowable correction to a Market Segment	Purchasing-Selling Entity



**Corrections to Products (con't.)** 

In 1.8, impacted entities are defined as:

Correction Type	Impacted Entity	
Any allowable correction to a Physical Generation Segment	Source BA, Generation Providing Entity	
Any allowable correction to a Physical Transmission Segment or Transmission Allocation	Transmission Service Provider, Scheduling Entities (Intermediate BAs), Transmission Customer	
Any allowable correction to a Physical Load Segment	Sink BA, Load Serving Entity	
Any allowable correction to a Market Segment	Purchasing-Selling Entity	
Any allowable correction to any product code (energy or transmission)	In addition to the above, the last Physical Transmission Segment's TSP, LSE, Sink BA	



**Energy and Transmission Profiles** 

The Agent and Authority Services will require the e-Tag's transmission allocation profile to be  $\geq$  the energy profile



#### After-the-Fact (ATF) Tags

In 1.7097, ATF e-Tags could not be Terminated if a mistake was made

In 1.8 an ATF e-Tag can be Terminated



#### ATF Tags

In 1.7097, ATF e-Tags are restricted to a duration of one hour and can be submitted up to 48 hours in the past

In 1.8, ATF e-Tags are still restricted to a duration of one hour but may now be submitted with a start time up to 168 hours in the past



#### **Dynamic Adjustments**

In e-Tag 1.7097 only the e-Tag author could submit energy profile adjustments to a Dynamic type e-Tag

e-Tag 1.8 will allow the Source and Sink BAs to also submit energy profile adjustments to Dynamic type e-Tags



**Dynamic Adjustments** 

In 1.7097, adjustments to DYNAMIC e-Tags are limited to 96 hours in the past

In 1.8, DYNAMIC e-Tags may be adjusted up to 168 hours in the past, i.e. the actual hour being adjusted may not be more than 168 hours in the past



**Scheduling Entity Field** 

In the WECC, 1.8 requires a single Scheduling Entity (BA) in each transmission segment

All other interconnections it is not required to be specified by the tag author if the Scheduling Entity code for the physical segment is identical to the Transmission Service Provider (TSP) code on that physical segment



Ramping Ramp Rate is replaced with Ramp Duration

Users will no longer see a ramp duration on intermediate interchange scheduled blocks

**CI** Standards specify default ramp start and ramp stop times

Default ramp duration of 10 minutes for reliability "curtailments", but the user may specify other durations, including zero

Uses separate default straddle ramps for Western and Eastern Interconnections.



#### **Rounding Standard**

Within e-Tag 1.8, a rounding standard to move MW values to the nearest whole MW was added to be used in loss calculations

MW values in e-Tag profiles are sometimes integrated into MWh values across schedule intervals

e-Tag profiles that start or stop within schedule intervals may result in fractional MWh values being calculated. (< .50 down, >= .50 up)



#### **Improved Recovery Function**

Recovery is a mechanism that an Agent or Approval Service can request all updates from all Authority Services for any missed requests

Vendor displays may vary – user initiated recovery not always available



**Communications Security** 

Added SSL via HTTPS and client certificate requirement based on NAESB PKI standard. Initial roll-out will require server-side only Client-side implementation will be phased-in over time Companies will need to work with their specific vendor as implementation requirements will vary.



#### **Capabilities versus Requirements**

e-Tag 1.8 contains new features and capabilities such as Carbon Copy list, after-the-fact adjustments to DYNAMIC by BAs, etc.

The presence of these new features and capabilities does not require industry participants to utilize them beyond applicable standards



#### **Interruptions and Curtailments**





#### **Economic Interruption**

Valid, higher class reservations can interrupt lower class reservations regardless of the duration or start and stop times within the transmission scheduling timelines in both pre-schedule and real-time

#### **Economic interruptions can happen:**

- where a customer purchases a higher class of transmission which leads to the interruption of a lower class due to insufficient ATC
- where a customer utilizes its transmission which leads to the interruption of another customer's purchase of its unused transmission

Customers are not required to pay for transmission requests that are economically interrupted



#### **Transmission Curtailments**

Curtailment of a transmission service occurs when an emergency or unforeseen condition threatens to degrade the reliability of the transmission system

Curtailments will be made on a non-discriminatory basis to relieve the constraint

#### The transmission curtailment order is:

- Secondary (LIFO)
- Non-Firm (LIFO based on duration)
- Network Economy (LIFO)
- Firm (pro-rata)



#### **Associated Energy Curtailments**

Any energy scheduled on a transmission reservation will be curtailed if the associated transmission reservation is curtailed



#### **Transmission Losses**





#### Loss Compensation Service (LCS)

Losses are recovered by BCTC for all energy schedules that flow on the BC transmission system

Customers elect, on an annual basis from April 1 to April 15, whether they want to purchase LCS from BCTC or selfsupply their losses

• If an election is not made within this time period, the customer will be deemed to have elected to purchase LCS under BCTC's OATT



#### **Three Strike Rule for Self-Supply**

If a customer does not supply a valid loss schedule for any transaction, BCTC will assign a "strike"

BCTC will validate, after-the-fact, if the self-supply customer that had energy scheduled on the prior working day, supplied their losses accordingly

If a customer incurs a "strike(s)" in a particular working day, there will be a letter and/or email issued by BCTC to notify the customer

If a customer incurs three "strikes", BCTC will immediately default the Loss Supply to be BCTC, and the customer shall be charged the Loss Compensation Rate as per Rate Schedule 09



# **Settlement and Billing** PAID BC Transmission CORPORATION

**Building Connections**
#### **Settlement and Billing**

"Rates Schedules" that are filed in accordance with the Utilities Commission Act are the only lawful enforceable, and collectable rates of the public utility filing them, and no other rate may be collected, charged or enforced

A "rate" includes charges and other compensation, but also includes tariffs and a "rule, practice, measurement, classification or contract of a public utility or corporation relating to a rate"

Under BCTC's OATT, Rate Schedules 01-10 are appropriately applied to wholesale transmission transactions



#### **Summary of Rate Schedules**

- RS 01 Long and Short-Term Firm Point-to-Point Transmission Service
- **RS 02 Non-Firm Point-to-Point Transmission Service**
- **RS 03 Scheduling, System Control and Dispatch Service (SSCD)**
- **RS 04 Reactive Supply and Voltage Control from Generation Sources** Services (RSVC)
- **RS 05 Regulation and Frequency Response Service (RFR)**
- **RS 06 Energy Imbalance (EI) Service**
- RS 07 Operating Reserve (OR) Spinning Reserve Service
- **RS 08 OR Supplemental Reserve Services**
- **RS 09 Loss Compensation Service (LCS)**
- **RS 10 Real Power Losses**



#### **Payment Rules for Curtailments**

If a customer's transmission reservation is curtailed because of a BC-identified reliability reason, which is reflected in the transfer capability, the customer will not pay for that curtailment

**Customers do not pay for economic interruptions** 

If a customer's transmission reservation is curtailed because of a non-BC reliability reason, which is reflected in the transfer capability, the customer will pay for that curtailment



## **Pre-schedule Displacements**

#### **Key Terms and Definitions**

- What is and is <u>not</u> a Displacement?
- Duration

#### **Submitting Requests**

#### **Posting Periods**

#### **Duration**

- Right of First Refusal (ROFR)
  - Match Duration
  - Match Price
- Counteroffer (Grant Remaining Capacity)

#### **Price ROFR**

**E-Tags and Displacements** 









## Key Terms used in Displacements

Class - Firm, Non-Firm, Network Economy or Secondary Service

Service Increment - Hourly, Daily, Weekly, Monthly or Yearly

**Duration** - the number of consecutive, same MW service increments between the Start Time and Stop Time

Capacity - MW value of the Transmission Reservation

**Priority** - defined either by a higher class of service <u>or</u> longer duration <u>or</u> price



## Key Terms used in Displacements

**Price -** must be equal to or greater than the posted price and no higher than the maximum Tariff price

#### **Original Request**

- CONFIRMED Pre-confirmed YES or
- ACCEPTED Pre-confirmed NO (not yet CONFIRMED by customer)

**Competing Request -** Request with higher priority than an earlier CONFIRMED or ACCEPTED request and insufficient ATC to cover both requests

Matching Request - Submitted by customer in response to a pending displacement



## Key Terms used in Displacements

**Duration ROFR** - the right to match a competing request on Duration within the required timelines

**Price ROFR** - the right for an accepted request to match a competing non-firm request on Price when that competing request is the same duration with a higher price



## **OASIS Status Definitions**

**QUEUED** - initial status assigned by OASIS on receipt. May also indicate the path is blocked during a displacement in process

**WITHDRAWN** - assigned during the evaluation process to indicate customer has withdrawn request

**CONFIRMED** - assigned to indicate the transmission reservation exists

**ACCEPTED** - assigned to indicate the request has been accepted and awaiting confirmation

**INVALID** - assigned to indicate an invalid field in the request or received outside timelines.



## **OASIS Status Definitions**

**RECEIVED** - assigned to acknowledge queued request and indicate the request is being evaluated as a competing request

**REFUSED** - assigned to indicate a service request has been denied due to the lack of availability

**DECLINED** - assigned to indicate terms and conditions such as Bid Price are unacceptable and that negotiations have been terminated

**RETRACTED** - customer failed to confirm or withdraw the request within the required time period



## **OASIS Status Definitions**

**COUNTEROFFER** - assigned to indicate that Capacity Granted is less than Capacity Requested. Original customer has matched and competing request is offered remaining ATC, also offered during REBID

**DISPLACED** - assigned to indicate a customer has been displaced by a higher priority reservation

**SUPERSEDED** - assigned to indicate a request which has not yet been confirmed is displaced by a higher priority reservation. (Price ROFR)

**REBID** - assigned to indicate that a new Bid Price is being proposed, used during Price ROFR



## What is a Displacement?

Displacements occur when requests for transmission service of a higher priority, regardless of MW amount, are received that potentially displace lower priority requests

Under certain competing circumstances transmission requests receive Right of First Refusal (ROFR) on Duration or Price

<u>Note:</u> The displacement process <u>only</u> occurs in Pre-schedule, not Real-time



# What is not a Displacement?

#### **Economic Interruptions**

• A valid, higher class reservation will interrupt a lower class reservation if there is insufficient ATC to satisfy both requests

#### **Transmission Curtailment**

- Curtailment of a transmission service occurs when an emergency or unforeseen condition threatens to degrade the reliability of the transmission system
- Curtailments will be made on a non-discriminatory basis to relieve the constraint



#### What is Duration?

Duration is the number of consecutive hours with the same MW service increments within the Start and Stop Time and it plays a major role in the displacement process

#### **Duration - Hourly Service**

OASIS Ref #	Duration	HE01	HE02	HE03	HE04	HE05	HE06	HE07
200152	1 Hour	50	50	50	0	0	0	75
200154	1 Hour	50	50	0	50	-	-	-
200165	7 Hours	15	15	15	15	15	15	15
200167	3 Hours	-	-	10	10	10	-	-
200143	1 Hour	15	16	15	15	15	-	-
200136	1 Hour	10	0	10	10	0	0	10

11.



#### What are Profiles?

Profiles are the MW values and duration of any given transmission request also referred to as the shape of the transmission request



## What is Duration? - What are Profiles?

#### **Profiles can be either:**

- Mixed
  - Different MW value used in one or more hours between the Start and Stop Time
  - Mixed profiles are only allowed in Hourly Transmission requests

#### OR

- Flat
  - Same MW value used in each hour between the Start and Stop Time
  - Flat profiles <u>must be</u> used within the defined increment of (Daily, Weekly, Monthly and Yearly) the transmission request in order to be valid

# Requests that have zeros within or outside of the duration desired will be counted as a duration of one hour



### DURATION

<b>Duration - Hourly Service</b>							
Duration	HE01	HE02	HE03	HE04	HE05	HE06	HE07
1 Hour	50	50	50	0	0	0	75
1 Hour	50	50	0	50			
7 Hours	15	15	15	15	15	15	15
3 Hours			10	10	10		
1 Hour	15	16	15	15	15		
1 Hour	10	0	10	10	0	0	10
	rly Service Duration 1 Hour 1 Hour 7 Hours 3 Hours 1 Hour 1 Hour	Image: systemDurationHE011 Hour501 Hour507 Hours153 Hours151 Hour151 Hour10	Image: Project state     Image: Pr	Image: Problem structure     Image:	rly ServiceImage: Height of the systemImage: Height of the systemImage: Height of the systemDurationHE01HE02HE03HE041 Hour50505001 Hour50500507 Hours1515153 Hours1516151 Hour10010	rly ServiceImage: Market ServiceImage: Market ServiceImage: Market ServiceDurationHE01HE02HE03HE04HE051 Hour505050001 Hour505005007 Hours151515153 Hours151615151 Hour100010	rly ServiceImage: Market of the structureImage: Market of the structureImage: Market of the structureImage: Market of the structureDurationHE01HE02HE03HE04HE05HE061 Hour5050500001 Hour5050050007 Hours15151515153 Hours15161515151 Hour1000100

Important Note: whenever a zero is used within the start and stop time of an hourly request, the duration is counted as one



## Submitting Requests Normal Pre-schedule Day versus Working Day?

#### What is a Normal Pre-Schedule Day (NPD)?

- 00:00:00-16:59:59, 7 days a week
- Shift schedule for staff is 07:15:00 18:00:00 PPT

#### What is a Working Day ?

 Any day in the week excluding weekends and statutory holidays as posted on the WECC Pre-schedule Calendar

http://www.wecc.biz/documents/library/ISAS/2008\_WECC\_Preschedule\_Calen dar.pdf



## Earliest Transmission Request Submittal

#### **In General**

- Requests for <u>monthly</u> service shall be submitted no earlier than sixty (60) days before service is to commence;
- <u>Weekly</u> service shall be submitted no earlier than fourteen (14) days before service is to commence,
- <u>Daily</u> service shall be submitted no earlier than two (2) Working Days before service is to commence.
- <u>Hourly</u> service for Tuesday to Friday shall be submitted no earlier than 0:00:00 the Working Day before service is to commence. Request for hourly service for Saturday shall be submitted no earlier than 00:00:00 the preceding Thursday. Request for hourly service for Sunday and Monday shall be submitted no earlier than 00:00:00 the preceding Friday.
- Holidays, as posted on OASIS, will affect the aforementioned bidding windows for the earliest submission timeline for hourly service. For example, if a NERC holiday falls on Monday, transmission requests can be submitted as early as 00:00:00 Friday for the following Tuesday.

## Industry Standards have been developed to accommodate entities that operate on a 5 day basis

BCTC has implemented "Extended Windows" to accommodate this Standard (as indicated above)



#### **Earliest Transmission Request Submittal**

Extended Windows are done in coordination with "normal weekends" and NERC approved holidays, and other approved timeframes as established by WECC

Timeframes are set forth in the WECC Prescheduling Calendar posted on the WECC website

http://www.wecc.biz/documents/library/ISAS/2008\_WECC\_Preschedule\_Calen dar.pdf



## **Extended Windows**

#### HOURLY Firm and Non-Firm Regular Weekend

Time	Day		Jan 24 Tuesday	Jan 25 Wednesday	Jan 26 Thursday	Jan 27 Friday	Jan 28 Saturday	Jan 29 Sunday	Jan 30 Monday
00:00:00	Monday	Jan 23, 2006	X						
00:00:00	Tuesday	Jan 24, 2006		X					
00:00:00	Wednesday	Jan 25, 2006			X				
00:00:00	Thursday	Jan 26, 2006				X	X		
00:00:00	Friday	Jan 27, 2006					X	X	X
00:00:00	Saturday	Jan 28, 2006						X	X
00:00:00	Sunday	Jan 29, 2006							X

Saturday's transmission can be purchased as early as 00:00:00 Thursday



## **Extended Windows**

#### Hourly Firm and Non-Firm - Monday Statutory Holiday

Martin Luther King's Birthday Jan 16, 2006													
			Jan	Jan	Jan	Jan	Jan	Jan	Jan				
Time	Day		11	12	13	14	15	16	17				
			Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday				
00:00:00	Tuesday	Jan 10, 2006	X	X									
00:00:00	Wednesday	Jan 11, 2006		X	X	X							
00:00:00	Thursday	Jan 12, 2006			X	X	X	X					
00:00:00	Friday	Jan 13, 2006				X	X	X	X				
00:00:00	Saturday	Jan 14, 2006					X	X	X				
00:00:00	Sunday	Jan 15, 2006						X	X				
00:00:00	Monday	Jan 16, 2006							X				

HOURLY Firm and Non-Firm Martin Luther King's Birthday Jan 16, 2006

**For example:** The window for purchasing Hourly Firm and Non-Firm transmission for Friday, Saturday, Sunday and Monday is as follows: Hourly Firm and Non-Firm transmissions requests for Monday, January 16, 2006 can be submitted as early as 00:00:00 Thursday January 12, 2006.

NERC holidays and New Month Pre-schedule days MUST be verified using the WECC Pre-schedule calendar. <u>Not all holiday Mondays are treated the same.</u>



# **Extended Windows and Displacements**

**Daily Firm and Non-Firm - Regular weekend** 

#### **DAILY** Firm and Non-Firm

#### Regular Weekend

			Jan	Jan	Jan	Jan	Jan	Jan	Jan	Jan
Time	Day		24	25	26	27	28	29	30	31
	-		Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday
00:00:00	Monday	Jan 23, 2006	X	X						
00:00:00	Tuesday	Jan 24, 2006		X	X					
00:00:00	Wednesday	Jan 25 2006			Х	Х				
00:00:00	Thursday	Jan 26, 2006				Х	X	X	X	
00:00:00	Friday	Jan 27, 2006					X	X	X	X
00:00:00	Saturday	Jan 28, 2006						X	X	Х
00:00:00	Sunday	Jan 29, 2006							X	X



## **Extended Windows and Displacements**

#### **Daily Firm and Non-Firm - Monday Statutory Holiday**

#### DAILY Firm and Non-Firm Martin Luther King's Birthday Jan 16, 2006

			Jan	Jan	Jan	Jan	Jan	Jan	Jan	Jan
Time	Day		11	12	13	14	15	16	17	18
			Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday
00:00:00	Tuesday	Jan 10, 2006	X	X						
00:00:00	Wednesday	Jan 11, 2006		Х	Х					
00:00:00	Thursday	Jan 12, 2006			Х	X	X	X	Х	
00:00:00	Friday	Jan 13, 2006				X	X	Х	X	X
00:00:00	Saturday	Jan 14, 2006					X	X	X	X
00:00:00	Sunday	Jan 15, 2006						X	X	Х
00:00:00	Monday	Jan 16, 2006							X	Х

For example: The window for purchasing Daily Firm and Non-Firm transmission for Saturday/Sunday/Monday/Tuesday is as follows: Daily Firm and Non-Firm transmission requests for Tuesday Jan 17th can be submitted as early as 00:00:00 Thursday Jan 12, 2006.



## How Extended Windows Looks in BPs

#### **Daily Firm and Daily Non-Firm**

- Daily Firm and Daily Non-Firm requests for Saturday, Sunday and Monday can be submitted as early as 00:00:00 Thursday
- Daily Firm and Daily Non-Firm requests for Tuesday can be submitted as early as 00:00:00 Friday. Holidays as posted on the WECC pre-schedule calendar will affect the bidding window



## **Extended Windows and Displacements**

#### **Extended windows affects Displacements**

- Hourly transmission for day plus 1 must be QUEUED by 08:59:59 NPD in order to be included in the displacement process
- Requests submitted at 09:00:00 NPD or later <u>will not</u> be included in the displacement process and will be satisfied on a first come, first serve basis
- Displacements for day plus 1 are completed at 09:59:59 NPD; however, displacements for day plus 2 will continue until the next applicable NPD



### **PRE-CONFIRMED - YES**

#### If a Customer submits a Pre-confirmed Yes request:

- Once validated by BCTC's scheduling system, the OASIS request is updated to CONFIRMED on OASIS.
  - This request has the Right of First Refusal to match a subsequent request based on duration
  - Cannot be displaced based on price
- A Pre-confirmed YES with a longer duration will immediately supersede a Pre-confirmed NO



### **PRE-CONFIRMED - NO**

#### If a Customer submits a Pre-confirmed No request:

- Once validated by TSS, the request is updated to a temporary status of ACCEPTED on OASIS
  - This request has the Right of First Refusal to match a subsequent request based on Price if duration is equal
  - This request does <u>not</u> have the Right of First Refusal to match a subsequent request based on duration
  - For the ACCEPTED request to become a contract the Customer must Confirm the request on OASIS within the Confirmation Timelines. If not CONFIRMED within the confirmation timelines then that request will be RETRACTED.



## Pre-confirmed NO Confirmation Timeline Table

Class	Service Increment	Time QUEUED Prior to start	Customer Confirmation Limit after Accepted
Non-Firm	Hourly	<> 1 Hour	5 minutes
Non-Firm	Hourly	Day ahead	10 minutes
Non-Firm	Daily	N/A	10 minutes
Non-Firm	Weekly	N/A	30 minutes
Non-Firm	Monthly	N/A	2 hours
Firm	Hourly	<> 1 Hour	5 minutes
Firm	Hourly	Day ahead	10 minutes
Firm	Daily	N/A	10 minutes
Firm	Weekly	N/A	30 minutes
Firm	Monthly	N/A	2 hours

#### **Confirmation Timeline Table**

BCTC has reduced confirmation timelines to accommodate industry energy scheduling practices

On peak and Off-peak hourly price profiles can be used when submitting an Hourly Transmission request for more than one hour. If for example the request covers on and off-peak hours then the price profile would be \$1.10 for HE06 and \$3.90 for HE07

Posting Ref	<u>Provider</u>	<u>Path</u>	<u>POR</u>	<u>POD</u>	<u>Start Time</u>	<u>Stop Time</u>	Capacity I	<u>ncrement</u>	<u>Class</u>	<u>Type</u>	<u>Period</u>	Offer Price	
355007998	BCTC	W/BCTC/BCTC-BPAT//	BCTC.NETWORK	BC.US.BORDER	2006-01-12 00:00:00 PS	2006-01-12 01:00:00 PS	3780	HOURLY	NON-FIRM	POINT_TO_POINT	FULL_PERIOD	1.1000	
355008003	BCTC	W/BCTC/BCTC-BPAT#	BCTC.NETWORK	BC.US.BORDER	2006-01-12 01:00:00 PS	2006-01-12 02:00:00 PS	4108	HOURLY	NON-FIRM	POINT_TO_POINT	FULL_PERIOD	1.1000	
355008008	BCTC	W/BCTC/BCTC-BPAT#	BCTC.NETWORK	BC.US.BORDER	2006-01-12 02:00:00 PS	2006-01-12 03:00:00 PS	4109	HOURLY	NON-FIRM	POINT_TO_POINT	FULL_PERIOD	1.1000	
355008013	BCTC	W/BCTC/BCTC-BPAT#	BCTC.NETWORK	BC.US.BORDER	2006-01-12 03:00:00 PS	2006-01-12 04:00:00 PS	4109	HOURLY	NON-FIRM	POINT_TO_POINT	FULL_PERIOD	1.1000	
355008018	BCTC	W/BCTC/BCTC-BPAT#	BCTC.NETWORK	BC.US.BORDER	2006-01-12 04:00:00 PS	2006-01-12 05:00:00 PS	4108	HOURLY	NON-FIRM	POINT_TO_POINT	FULL_PERIOD	LIVE	
355008023	BCTC	W/BCTC/BCTC-BPAT#	BCTC.NETWORK	BC.US.BORDER	2006-01-12 05:00:00 PS	2006-01-12 06:00:00 PS	3639	HOURLY	NON-FIRM	POINT_TO_POINT	FULL_PERIO	1.1000	
355008028	BCTC	W/BCTC/BCTC-BPAT#	BCTC.NETWORK	BC.US.BORDER	2006-01-12 06:00:00 PS	2006-01-12 07:00:00 PS	4068	HOURLY	NON-FIRM	POINT_TO_POINT	FULL_PERION	3.9000	
355008033	BCTC	W/BCTC/BCTC-BPAT#	BCTC.NETWORK	BC.US.BORDER	2006-01-12 07:00:00 PS	2006-01-12 08:00:00 PS	3988	HOURLY	NON-FIRM	POINT_TO_POINT	FULL_PERIOD	0.0000	
355008038	BCTC	W/BCTC/BCTC-BPAT#	BCTC.NETWORK	BC.US.BORDER	2006-01-12 08:00:00 PS	2006-01-12 09:00:00 PS	3974	HOURLY	NON-FIRM	POINT_TO_POINT	FULL_PERIOD	3.9000	
355008043	BCTC	W/BCTC/BCTC-BPAT#	BCTC.NETWORK	BC.US.BORDER	2006-01-12 09:00:00 PS	2006-01-12 10:00:00 PS	4023	HOURLY	NON-FIRM	POINT_TO_POINT	FULL_PERIOD	3.9000	
355008048	BCTC	W/BCTC/BCTC-BPAT#	BCTC.NETWORK	BC.US.BORDER	2006-01-12 10:00:00 PS	2006-01-12 11:00:00 PS	3928	HOURLY	NON-FIRM	POINT_TO_POINT	FULL_PERIOD	3.9000	
355008053	BCTC	W/BCTC/BCTC-BPAT#	BCTC.NETWORK	BC.US.BORDER	2006-01-12 11:00:00 PS	2006-01-12 12:00:00 PS	3938	HOURLY	NON-FIRM	POINT_TO_POINT	FULL_PERIOD	3.9000	
355008058	BCTC	W/BCTC/BCTC-BPATH	BCTC.NETWORK	BC.US.BORDER	2006-01-12 12:00:00 PS	2006-01-12 13:00:00 PS	3993	HOURLY	NON-FIRM	POINT_TO_POINT	FULL_PERIOD	3.9000	
355008089	BCTC	W/BCTC/BCTC-BPAT#	BCTC.NETVORK	BC.US.BORDER	2006-01-12 18:00:00 PS	2006-01-12 19:00:00 PS	3595	HOURLY	NON-FIRM	POINT_TO_POINT	FULL_PERIOD	3.9000	



Price profiles can be updated using the Create button in the Reservation Profile section when submitting a new transmission request on OASIS

BCTC Time PS	e Zone		V1.4				
встс 💌	Select Provider		Enter TSR	Clear Form	Save As Template	<b>_</b>	Close
Seller	Source * Sink *	POR POD	Service *	Request Type	Start << >> C	Stop << >> C	MW Bid Get Price
BCTC 💌	<b>▼</b>	GMS.MCA.REV 💌 BC.US.BORDER 💌	HRLY_NON-FIRM_PTP_FIXED		01/20/2006 PS 💌 05 💌 : 00 💌	01/20/2006 PS 💌 23 💌 : 00 💌	226.0
Custome	r	Path *				Preconfirmed	
BCTC 💌		BCTC - BPAT	•				
	Posting Ref				Reserva	ation Profile	
	Sale Ref			🗆 25Hr 🛛 24	1Hr ⊡ H 🗆 D	W D N D Y	C Other C P
	Deal Ref					Create	
	Request Ref						
	Related Ref						
	Comment						
Statu	s Notification		2 1				
	mission						
ldina Con	nections						

BCTC Time PS	e Zone					R	eservat	ion Entry	Form V1.4				-
ВСТС 💌	Select Pro	vider		Enter	TSR	Clear F	orm	Save As Te	mplate	•	C	lose	
Seller	Source * Sink *		POR POD		Service *			Request Type	Start << >>	C Stop <<	>> C	Bid Price Get Price	
BCTC -		-	GMS.MCA.F	REV 🔽 DER 🔽	HRLY_NON-F	IRM_PTP_FIXE	D 🔽		01/17/2006	01/17/2006		5.3000	
Custome	r	P	ath *		<b>.</b>	[			Pre	confirmed			
Por	ating Ref		Joro - Br Al					Rese	ervation Profile				
103	Sale Ref					□ 25Hr	□ 24Hr	H □ D Start		Stop	Other MW	□ Peal Price	ĸ
Req	Deal Ref uest Ref					01/17/2006	5:00	PS - 01/17/20	006 6:00	PS 💌 30	+	3.1	+
Rel	ated Ref					01/17/2006	6:00	PS 🔻 01/17/20	006 7:00	PS 💌 30	+	5.3000	+ *
Status No	otification					01/17/2006	7:00	PS - 01/17/20	006 8:00	PS 💌 30	+	5.3000	Ŧ
						01/17/2006	8:00	PS 💌 01/17/20	006 9:00	PS 💌 30	+	5.3000	+ *
						01/17/2006	9:00	PS 💌 01/17/20	006 10:00	PS 💌 30	+	5.3000	+ *
						01/17/2006	10:00	PS 💌 01/17/20	006 11:00	PS 💌 30	+	5.3000	+ *
						01/17/2006	11:00	PS 💌 01/17/20	006 12:00	PS 💌 30	+	5.3000	+ *
						01/17/2006	12:00	PS - 01/17/20	006 13:00	PS 💌 30	+	5.3000	+ *
						01/17/2006	13:00	PS 💌 01/17/20	006 14:00	PS 💌 30	+	5.3000	+ *

#### **Enter TSR and submit to OASIS**

Enter	TSR	Clear F	orm	Save As Te	mplate	
POR POD	Service *			Request Type	Start << >>	C Stop <<
GMS.MCA.REV 💌 BC.US.BORDER 💌	HRLY_NON-FI	IRM_PTP_FIXE	ED 💌		01/12/2006	01/13/2006
:h *					Pre	econfirmed
_		□ 25Hr	□ 24Hr	Reso I I I D Start	ervation Profile □ W □ M	□Y □O Stop M
		01/12/2006	0:00	PS 🔽 01/12/2	006 1:00	PS 💌 1.1
		01/12/2006	1:00	PS - 01/12/2	2:00	PS 💌 1.1
		01/12/2006	2:00	PS 🔽 01/12/2	3:00	PS 💌 1.1
		01/12/2006	3:00	PS 🔽 01/12/2	006 4:00	PS 🔽 1.1

BC Transmission

**Building Connections** 

### **Daily Requests - Different Price Profiles**

Daily Reservations are a flat Price Profile for each day. However, different daily prices can be bid when submitting a Daily transmission request for more than one day. For example: if the duration of the request is 3 days, then the price profile would be \$2.9 for Jan 13 and 14 and \$1.1 for Jan 15

<u>Posting Ref</u>	<u>Provider</u>	<u>Path</u>	<u>POR</u>	<u>POD</u>	<u>Start Time</u>	<u>Stop Time</u>	<b>Capacity</b>	<u>Increment</u>	<u>Class</u>	Offer Price	
<u>343401417</u>	встс	V/BCTC/BCTC+BPAT#	BCTC.NETWORK	BC.US.BORDER	2006-01-11 00:00:00 PS	2006-01-12 00:00:00 PS	1616	DAILY	NON-FIRM	2.9000	
<u>343746545</u>	встс	V/BCTC/BCTC+BPAT#	BCTC.NETWORK	BC.US.BORDER	2006-01-12 00:00:00 PS	2006-01-13 00:00:00 PS	1616	DAILY	NON-FIRM	2.9000	
<u>344093857</u>	встс	V/BCTC/BCTC+BPAT#	BCTC.NETWORK	BC.US.BORDER	2006-01-13 00:00:00 PS	2006-01-14 00:00:00 PS	1616	DAILY	NON-FIRM	2.9000	
<u>344459957</u>	встс	V/BCTC/BCTC+BPAT#	BCTC.NETWORK	BC.US.BORDER	2006-01-14 00:00:00 PS	2006-01-15 00:00:00 PS	1616	DAILY	NON-FIRM	2.9000	
<u>344824400</u>	встс	V/BCTC/BCTC+BPAT#	BCTC.NETWORK	BC.US.BORDER	2006-01-15 00:00:00 PS	2006-01-16 00:00:00 PS	1616	DAILY	NON-FIRM	1.1000	
<u>345184711</u>	BCTC	V/BCTC/BCTC+BPAT#	BCTC.NETWORK	BC.US.BORDER	2006-01-16 00:00:00 PS	2006-01-17 06:00:00 PS	1616	DAILY	NON-FIRM	2.9000	



### **Daily Requests - Different Price Profiles**

BC Transmission

Building Connections

CORPORATION

Price profiles can be updated using the Edit Profile button in the Dates and Times section when submitting a new transmission request on OASIS

BCTC Time Zone PS				Reservation Entry Form V1.4					
встс 💌	Select Provider	Enter	TSR	Clear F	orm	Save As Te	mplate	-	Close
Seller	Source * Sink *	POR POD	Service *			Request Type	Start << >> (	Stop 🤜	Bid Price Get Price
BCTC 💌	•	GMS.MCA.REV - BC.US.BORDER -	HRLY_NON-FI	RM_PTP_FIXE	D		01/17/2006	01/17/2006	5.3000
BCTC -	r	Path * BCTC - BPAT	_				Pre I⊽	confirmed	
Pos	sting Ref			□ 25Hr	□ 24Hr	Rese PH DD	ervation Profile		ther Peak
	Deal Ref					Start		Stop N	1W Price
Req	uest Ref			01/17/2006	5:00	PS 🔽 01/17/20	006 6:00	PS 💌 30	+ 3.1 + *
Rel	ated Ref			01/17/2006	6:00	PS 💌 01/17/20	006 7:00	PS 🗾 30	+ 5.3000 + *
C Status No	omment of the second se			01/17/2006	7:00	PS 💌 01/17/20	006 8:00	PS 💌 30	+ 5.3000 + *
				01/17/2006	8:00	PS - 01/17/20	006 9:00	PS 💌 30	+ 5.3000 + *
				01/17/2006	9:00	PS 💌 01/17/20	10:00	PS 🔻 30	+ 5.3000 + *
				01/17/2006	10:00	PS - 01/17/20	006 11:00	PS 💌 30	+ 5.3000 + *
				01/17/2006	11:00	PS - 01/17/20	006 12:00	PS 💌 30	+ 5.3000 + *
				01/17/2006	12:00	PS 💌 01/17/20	006 13:00	PS 🗾 30	+ 5.3000 + *
				01/17/2006	13:00	PS 💌 01/17/20	006 14:00	PS 💌 30	+ 5.3000 + *

Change Bid Price under the Reservation Profile, Click on Enter TSR then
Submit. Same method as described on Hourly Price Profiles slides

## Weekly and Monthly Price Profiles

#### Weekly

- Weekly prices are not posted on OASIS; however, a weekly price for the first week can be discerned from OASIS
- Price for a weekly reservation can be determined by contacting the Pre-schedule Office

#### Monthly

• The Customer must bid one price for the duration of the request



## Posting Periods Pre-schedule Posting Periods

#### 00:00:00 - 07:29:59

At midnight automation triggers that day's first posting of hourly TTC/ATC to OASIS. Thereafter TTC/ATC updates are uploaded to OASIS every 5 minutes.

#### <u>17:00:00 - 23:59:59</u>

At approximately 17:00:00 NPD and only if Pre-schedule has completed the checkout with its adjacent Balancing Authorities, the windows for Daily Firm and Non-Firm transmission are open based on Extended Windows


## **Pre-schedule Posting Periods**

#### <u>07:30:00 - 07:59:59</u>

OASIS transmission requests received during this period will be marked INVALID and the 5 minute interval OASIS uploads of TTC/ATC are halted. This improves efficiency of the simultaneous posting of (hourly, daily, monthly) TTC/ATC and prices, which occurs during this time.

- If the morning posting concludes before 07:55:00 then the next posting will be 08:00:00
- If the morning posting concludes between 07:55:00 and 08:09:59 then the next posting will be 08:15:00
- If the morning posting concludes between 08:10:00 and 08:24:59 then the next posting will be 08:30:00
- If the morning posting concludes between 08:25:00 and 08:39:59 then the next posting will be 08:45:00.



## **Pre-schedule Posting Periods**

### <u>08:00:00 - 23:59:59</u>

Hourly and daily TTC/ATC postings for next working day are automatically posted hourly and daily to OASIS every 5 minutes with the exceptions of posting frequency variances.

Any changes to the above mentioned postings are uploaded every 5 minutes.

TTC/ATC postings for future days are also posted by the pre-schedule office on or after 17:00.



## **Real-time Posting Periods**

### 00:00:00 - 23:59:59

ATC is uploaded to OASIS every 5 minutes with the exceptions of posting frequency variances noted earlier.



### **Duration ROFR**

### What is it?

Right of First Refusal (ROFR) allows an earlier CONFIRMED request with a shorter duration the opportunity to match a Competing Request with a longer duration



### **MATCHING - Duration ROFR**

### **Duration ROFR - how will the customer know?**

BCTC will make one attempt to notify the CONFIRMED customer to inform them they have the opportunity to exercise their ROFR (match request) to avoid being displaced If the customer is reached the customer must state their willingness to match If the customer is not reached then a detailed message will be left giving specifics such as:

- the OASIS number
- the required match (duration or price)
- the time the message was left
- when the OASIS Expiry Timer was started

#### A timer is started by the Pre-scheduler at the time contact is made or when the message is left

 NOTE: It is the responsibility of the customer to ensure that we have the correct contact information for their company and to be available during the displacement process



Class	Service Increment	Time QUEUED Prior to start	Customer Confirmation Limit for Matching
Non-Firm	Hourly	<> 1 Hour	N/A
Non-Firm	Hourly	Day ahead	10 minutes
Non-Firm	Daily	N/A	10 minutes
Non-Firm	Weekly	N/A	30 minutes
Non-Firm	Monthly	N/A	2 hours
Firm	Hourly	<> 1 Hour	N/A
Firm	Hourly	Day ahead	10 minutes
Firm	Daily	N/A	10 minutes
Firm	Weekly	N/A	30 minutes
Firm	Monthly	N/A	2 hours

 Matching for day plus 1 must be completed within the confirmation limit or processed by 09:59:59 NPD, whichever comes first



**Customer** has **one** opportunity to submit a valid Matching Request within the matching timelines

Customer can reduce, match but NOT exceed original MW value, and must match or exceed duration of the competing request

Match request must be a flat MW profile

Price must be equal to or greater than the posted price for the entire period



### How to MATCH on OASIS?

- BCTC has 100MW of Hourly Non-firm ATC for HE01 HE24 available for day ahead transmission on BC>AESO.
- Customer A has a Duration of 3 on a CONFIRMED request (first in) for HE18
  HE20 for 100MW Hourly Non-Firm ATC
- Customer B has a Duration of 16 on a Queued request (second in) for HE7 -HE22 for 100MW Hourly Non-Firm ATC

### This initiates the Displacement Process

- Customer A is contacted and states YES to MATCH
- BCTC initiates the Expiry Timer sending a message to OASIS and at the same time reminds Customer A they have 10 minutes to submit a <u>correct MATCH</u>. Customer has until 09:59:59 to do so if displacement is for Day +1.



### Submitting a Match on OASIS

### To match a customer must:

- Retrieve the original request
- Click the "Create new TSR" button
- Choose the Request Type to "MATCHING"
- Enter the Related Ref number of the original Request
- Change the duration and/or price to at least match the competing request
- Click on the Submit button to complete the match request



### Matching - Duration ROFR cont'd



## Customer A submits a correct Matching request (new) and is CONFIRMED.

 If Customer A <u>does not</u> submit a matching request within the timelines, the original transmission request will be DISPLACED



#### Transmission Reservation Detail 69781452 DISPLACED

uston	ner Update		Create N	lew TSR		Print \	/iew		
eller	Source Sink	POR POD	Request Type	Start	Stop	MW Req	MW Grant	Bid Price	Offer Price
стс		GMS.MCA.REV AB.BC	ORIGINAL	2006-11-25 17:00 PS	2006-11-25 20:00 PS	100	100	5.30	5.30
ath: `	W/BCTC/BCTC	- AESO//							
ervic	e Code		Increment	Class	Туре		Pe	riod	
RLY_	NON-FIRM_PT	P_FIXED	HOURLY	NON-FIRM	POINT_TO_F	POINT	FU	LL_PERIC	D
recon	firmed: Yes		Competing: Yes	N	egotiated: No		Nerc F	Priority: 1	

	Reser\	/atio	n Profi	le				11.	/25/20	006						
Start Date	Stop Date	MW Req	MW Grant	мwн	Bid Price	Offer Price			100 90							
2006-11-25 17:00 PS	2006-11-25 20:00 PS	100	100	300.00	5.30	5.30			80 70 60							
	Pro	ofile	Total:	300.00				MW	40		+		$\square$	++	++	$\rightarrow$
									30 20		++		=	++	$\mp$	
									10							
									° 0	2	4	6	8	10 Ti	12	14
														Time	(100	131
			Comp	onte								Tir	200			
			Comm	Terris									ies			
Status									Q	ueue	d 2	006-	11-2	23-1	3:07	:53
Seller Repla	aced by 69781	1454	to mat	ch 6978	31453		>		IIn	date	d 7	-000	11_1	23.1	3-14	-50

BC Transmission

**Building Connections** 

	т	ransmis	sio	n Re	eserva	ation	Deta	il 69	7814	453	3 R	EFL	JSED	$\supset$
ustomer	Update				Create	New TS	R			F	Print ∖	/iew		
eller	Source Sink	POR POD		   	Request Fype	Star	t	Stop		N	/W Req	MW Gran	Bid t Pric	Offer e Price
стс		GMS.MCA AB.BC	REV	(	ORIGINAL	2006 06:0	-11-25 D PS	2006- 22:00	-11-25 ) PS		100		5.30	
ath: VV/	ВСТС/ВС	CTC - AESO//										L.,		
ervice (				Inc	rement		S	Тур			17		Period	DIOD
RLY_NC	med: Vo			- HC	ting: No	NON		PUI	• No	POIN	11	Nor	FULL_PE	:RIOD
<b>Start</b> 2006 06:00	Competing: NoNegotiReservation Profileart DateStop DateMW Req GrantMWH PriceBid PriceOffer Price006-11-252006-11-251001600.005.301600.00006-11-2522:00 PS1001600.005.301600.00Profile Total:1600.005.30													
				Com	ments				_				Time	s
Status								2			Qu	ieued	2006-11-	23 13:09:50
Saller	No av	7ailable ATC	:		>			-			Up	dated	2006-11-	23 13:15:07

### This section will describe the following scenarios:

- 1 Yes to MATCH Match is correct
- 2 Yes to MATCH Match is incorrect
- 3 No to MATCH
- 4 Yes to MATCH After displacement is complete ATC available
- 5 Yes to MATCH Timeline expired and No to MATCH
- 6 Yes to MATCH ATC not available for the Match
- 7 Pre-confirmed NO vs Pre-confirmed YES same duration
- 8 Pre-confirmed NO vs Pre-confirmed YES longer duration



### Scenario 1 describes <u>YES to MATCH</u> and MATCH is correct.

- The constrained path is AESO>BCTC for Day plus 1
- Reservation #100 for AESO>BPAT is CONFIRMED with a 2 hour duration
- Competing Request #200 has a 3 hour duration

	HE	01	02	03	04 [	<b>Duration</b>
Initial Posting	AESO>BCTC	25	25	25	25	
CONFIRMED RESERVATION						
100	AESO>BPAT	25	25			2
REMAINING ATC		0	0	25		
COMPETING REQUEST	AESO>BPAT					
200		25	25	25		3
REMAINING ATC		-25	-25	0		

### Duration - Scenario 1 cont'd

#### **Reservation #100 says YES and submits a correct MATCH**

					HE	01	02	03		
	Initial Pos	ting		AESO>BCTC		25	25	25		
CONFIRM	ED RESER	VATION							Duration	
	N	NATCH 300		AESO>BPAT		25	25	25	3	
	REMAI	NING ATC				0	0	0		
		100		AESO>BPAT		25	25		2	
	replac	ed by 300				-25	-25		-2	
		200		AESO>BPAT		25	25	25	3	
		Refused -	A'	TC not Availab	le	-25	-25	-25		
	REMAI	NING ATC				0	0	0		

- Reservation #100 is replaced BY MATCH #300
- Competing Request #200 is REFUSED, ATC not available
- Remaining ATC = ZERO



## Scenario 2 describes <u>YES to MATCH</u> and MATCH is incorrect.

- The constrained path is AESO>BCTC for Day plus 1
- Reservation #100 for AESO>BPAT (WT) is CONFIRMED with a 2 hour duration
- Competing Request #200 has a 3 hour duration

						-					
					HE	01	02	03	04		
	Initial Pos	ting		AESO>BCTC		25	25	25	25		
CONFIRM	ED RESER	VATION								Duration	
		100		AESO>BPAT		25	25			2	
	REMAI	NING ATC				0	0	25			
co	MPETING	REQUEST		AESO>BPAT							
		200				25	25	25		3	
	REM	AINING AT	c			-25	-25	0			



### Duration - Scenario 2 cont'd

#### **Reservation #100 says YES and submits an incorrect MATCH**

		HE	1	2	3	Duration	
Initial Posting		BCTC>AESO	25	25	25		
CONFIRMED RESERVATION							
200	1	AESO>BPAT	25	25	25	3	
REMAINING ATC			0	0	0		
100	1	AESO>BPAT	25	25		2	
DISPLACED by 200			-25	-25		-2	
300	1	AESO>BPAT	25	25		2	
INVALID - Incorrect Match			-25	-25		-2	
REMAINING ATC	:		0	0	0		

- MATCH Request #300 is INVALID
- Reservation #100 is Displaced by #200
- Reservation #200 is CONFIRMED
- Remaining ATC = ZERO



### Scenario 3 describes NO to MATCH.

- The constrained path is AESO>BCTC for Day plus 1
- Reservation #100 for AESO>BCTC (WT) is CONFIRMED with a 2 hour duration
- Competing Request #200 has a 3 hour duration

				HE 01	02	03	04	<b>Duration</b>
	Initial Pos	sting	AESO>BCTC	25	25	25	25	
CONFIRM	IED RESER	VATION						DURATION
		100	AESO>BPAT	25	25			2
	REMAI	NING ATC		0	0	25		
CO	MPETING	REQUEST	AESO>BPAT					
		200		25	25	25		3
	REMAI	NING ATC		-25	-25	0		
co	MPETING REMAI	REQUEST 200 Ning Atc	AESO>BPAT	25 - <b>25</b>	25 <b>-25</b>	25 0		3



- Reservation #100 says NO to MATCH
- Competing Request #200 is CONFIRMED
- Reservation #100 is DISPLACED immediately by #200
- Remaining ATC = ZERO

		HE	1	2	3	
Initial	Posting	AESO>BCTC	25	25	25	
CONFIRMED RE	SERVATION					DURATION
	200	AESO>BPAT	25	25	25	3
RE	MAINING ATC		0	0	0	
	100	AESO>BPAT	25	25		2
DISP	LACED by 200		-25	-25		-2
RE	MAINING ATC		0	0	0	



**Building Connections** 

## Scenario 4 will describe <u>YES to MATCH</u> with Remaining ATC available after completion of Displacements

- The constrained path is BCTC>AESO for Day plus 1
- Reservation #100 for 2 hour duration and Reservation #200 for 12 hour duration has been CONFIRMED
- Competing Request #300 is RECEIVED



### Duration - Scenario 4 cont'd

		HE	- 7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
	Initial Posting	BCTC>AESO	50	50	50	50	50	50	50	50	50	75	50	50	100	75	50	50		
CONFIR	MED RESERVATIONS																	D	URATION	
	100	BPAT>AESO											25	25					2	
	200	BPAT>AESO					25	25	25	25	25	25	25	25	25	25	25	25	12	
	REMAINING ATC		50	50	50	50	25	25	25	25	25	50	0	0	75	50	25	25		
С	OMPETING REQUEST																			
	300	BPAT>AESO								25	25	25	25	25	25	25			7	
	REMAINING ATC		50	50	50	50	25	25	25	0	0	25	-25	-25	50	25	25	25		

- Reservation #200 has a longer duration and <u>cannot</u> be displaced by #300
- Reservation #100 with a shorter duration <u>can</u> be displaced by #300, however #100 has the right to Match



### Duration - Scenario 4 cont'd

																			(
		HE	- 7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
lr II	nitial Posting	BCTC>AESO	50	50	50	50	50	50	50	50	50	75	50	50	100	75	50	50	
CONFIRM	ED RESERVATIONS																	D	URATION
	400	BPAT>AESO								25	25	25	25	25	25	25			7
	200	BPAT>AESO					25	25	25	25	25	25	25	25	25	25	25	25	12
	REMAINING ATC		50	50	50	50	25	25	25	0	0	25	0	0	50	25	25	25	
	100	BPAT>AESO											25	25					2
Replac	ed by Request #400												-25	-25					-2
	REMAINING ATC		50	50	50	50	25	25	25	0	0	25	0	0	50	25	25	25	
	300	BPAT>AESO								25	25	25	25	25	25	25			7
REFUSED	- ATC not available									-25	-25	-25	-25	-25	-25	-25			-7
	REMAINING ATC		50	50	50	50	25	25	25	0	0	25	0	0	50	25	25	25	

- Reservation #100 says Yes to Match and is replaced by correct MATCH #400
- Request #300 is REFUSED, ATC not available
- Remaining ATC = varied



### Duration - Scenario 4 cont'd

	HE	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
Initial Posting	BCTC>AESO	50	50	50	50	50	50	50	50	50	75	50	50	100	75	50	50		
CONFIRMED RESERVATIONS																	D	URATION	-
400	BPAT>AESO								25	25	25	25	25	25	25			7	
200	BPAT>AESO					25	25	25	25	25	25	25	25	25	25	25	25	12	
500	BPAT>AESO	50	50	50	50	25	25	25			25			50	25	25	25	1	
REMAINING ATC		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
100	BPAT>AESO											25	25					2	
Replaced by Request #400												-25	-25					-2	
REMAINING ATC		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
300	BPAT>AESO								25	25	25	25	25	25	25			7	
REFUSED - ATC not available									-25	-25	-25	-25	-25	-25	-25			-7	
REMAINING ATC		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

- Reservation #100 has been replaced by #400. Reservation #300 is not offered a COUNTEROFFER due to ATC not being available for all hours of their request and is REFUSED.
- Request #500 is submitted after the displacement process has completed and cannot be displaced further for Day Plus 1.(Note duration)



## Scenario 5 will describe a more complex scenario that includes:

- YES to MATCH with timeline expired
- secondly NO to MATCH
- The constrained path is BCTC >AESO
- Reservations #2000, #3000 ,#4000 and #5000 on BPAT>AESO are CONFIRMED
- Competing Request #6000 is RECEIVED



### Duration - Scenario 5 cont'd

	HE	- 7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Initial Posting	BCTC>AESO	50	50	50	50	50	50	50	50	50	75	100	100	100	75	50	50	
CONFIRMED RESERVATIONS																		DURATION
2000	BPAT>AESO					25	25	25	25	25	25	25	25	25	25	25	25	12
3000	BPAT>AESO											25	25					2
4000	BPAT>AESO										25	25	25	25	25	25	25	6
5000	BPAT>AESO											25	25					2
REMAINING ATC		50	50	50	50	25	25	25	25	25	25	0	0	50	25	0	0	
COMPETING REQUEST																		
6000	BPAT>AESO					25	25	25	25	25	25	25	25	25	25	25	25	12
REMAINING ATC		50	50	50	50	0	0	0	0	0	0	-25	-25	25	0	-25	-25	

• Confirmed reservation #5000 has a right to match on competing request #6000



## Duration - Scenario 5 cont'd

		HE	- 7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	DURATION
	Initial Posting	BCTC>AESO	50	50	50	50	50	50	50	50	50	75	100	100	100	75	50	50	16
CONFIRM	MED RESERVATIONS																		
	2000	BPAT>AESO					25	25	25	25	25	25	25	25	25	25	25	25	12
	3000	BPAT>AESO											25	25					2
	4000	BPAT>AESO										25	25	25	25	25	25	25	7
	5000	BPAT>AESO											25	25					2
	Match timeline expired	- Displaced											-25	-25					-2
	REMAINING ATC		50	50	50	50	25	25	25	25	25	25	25	25	50	25	0	0	
cc	DMPETING REQUEST																		
	6000	BPAT>AESO					25	25	25	25	25	25	25	25	25	25	25	25	12
	REMAINING ATC		50	50	50	50	0	0	0	0	0	0	0	0	25	0	-25	-25	

Reservation #5000 DISPLACED - match timeline expired

• Confirmed reservation #4000 has a right to match on competing request #6000

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### Duration - Scenario 5 cont'd

																			_
	HE	- 7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	DURATION	
Initial Posting	BCTC>AESO	50	50	50	50	50	50	50	50	50	75	100	100	100	75	50	50	16	
ONFIRMED RESERVATIONS																			
2000	BPAT>AESO					25	25	25	25	25	25	25	25	25	25	25	25	12	
3000	BPAT>AESO											25	25					2	
6000	BPAT>AESO					25	25	25	25	25	25	25	25	25	25	25	25	12	
5000	BPAT>AESO											25	25					2	
Match timeline expire	d - Displaced											-25	-25					-2	
REMAINING ATC		50	50	50	50	0	0	0	0	0	25	25	25	50	25	0	0		
4000	BPAT>AESO										25	25	25	25	25	25	25	7	
No to Match - Displace	ed										-25	-25	-25	-25	-25	-25	-25	-7	
REMAINING ATC		50	50	50	50	0	0	0	0	0	25	25	25	50	25	0	0		

- Reservation #4000 says No to Match and is displaced immediately
- Request #6000 is CONFIRMED and remaining ATC Varied



## Scenario 6 will describe <u>YES to MATCH</u> and ATC not available for the match

- The constrained path is BCTC >AESO
- Reservations #100, #200 and #300 on BPAT>AESO are CONFIRMED
- Competing Request #400 is RECEIVED



### Duration - Scenario 6 cont'd

19 20 21 22 HE 10 11 12 13 14 15 16 17 18 Initial Posting BCTC>AESO 50 50 50 50 50 50 50 50 50 CONFIRMED RESERVATIONS BPAT>AESO 50 50 50 50 100 4 200 BPAT>AESO 50 50 50 3 300 BPAT>AESO 50 50 2 0 0 0 0 0 0 0 REMAINING ATC 0 0 COMPETING REQUEST 50 50 50 50 50 50 50 50 400 BPAT>AESO 50 L 9 -50 -50 -50 -50 -50 -50 -50 -50 -50 REMAINING ATC

DURATION

- Request #400 is a valid competing request.
- CONFIRMED reservation #300 and subsequently CONFIRMED reservation #200 says Yes to Match and cannot Match due to ATC limitations and are DISPLACED.
- Reservation #100 can match as all ATC has been freed up.

BCTC offers a MATCH as ATC may become available during the displacement process. (i.e.counterflow transmission)

BC Transmission

# Scenario 7 will describe that a Pre-confirmed NO <u>will not</u> be automatically displaced by a Pre-confirmed YES of equal duration.

- The constrained path is BCTC >AESO
- Request #500 is CONFIRMED
- Request #600 is ACCEPTED



### Duration - Scenario 7 cont'd

DURATION

		HE	- 7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
	Initial Posting	BCTC>AESO	50	50	50	50	50	50	50	100	100	100	100	100	100	75	50	50	
	Request #																		
CON	IFIRMED request #500	BPAT>AESO					25	25	25	25	25	25	25	25	25	25	25	25	12
AC	CEPTED request #600	BPAT>AESO								25	25	25	25	25	25	25	25	25	9
	REMAINING ATC		50	50	50	50	25	25	25	50	50	50	50	50	50	25	0	0	
Pre-co	nfirmed Request #700	BPAT>AESO								25	25	25	25	25	25	25	25	25	9
	REMAINING ATC		50	50	50	50	25	25	25	25	25	25	25	25	25	0	-25	-25	

- Request #700 is REFUSED, ATC not available
- Request #600 will be CONFIRMED by customer or RETRACTED if confirmation not submitted on time



Scenario 8 will describe that a Pre-confirmed NO will be automatically displaced by a Pre-confirmed YES with a longer duration.

- The constrained path is BCTC >AESO
- Request #101 is CONFIRMED
- Request #201 is ACCEPTED
- Request #301 is competing



## Duration - Scenario 8 cont'd

DURATION

		HE	- 7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
	Initial Posting	BCTC>AESO	50	50	50	50	50	50	50	100	100	100	100	100	100	75	50	50		
	Request #																			
CON	IFIRMED request #101	BPAT>AESO					25	25	25	25	25	25	25	25	25	25	25	25	12	
AC	CEPTED request #201	BPAT>AESO								25	25	25	25	25	25	25	25	25	9	
	REMAINING ATC		50	50	50	50	25	25	25	50	50	50	50	50	50	25	0	0		
Pre-co	nfirmed Request #301	BPAT>AESO					25	25	25	25	25	25	25	25	25	25	25	25	12	
	REMAINING ATC		50	50	50	50	0	0	0	25	25	25	25	25	25	0	-25	-25		

- Reservation #101 is CONFIRMED
- Request #201 is in the 5 minute timeline period to Confirm for NF hourly transmission
- Request #301 is next in the queue with a longer duration, same price and Pre-confirmed YES



### Duration - Scenario 8 cont'd

	HE	- 7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	DURA	TI
Initial Posting	BCTC>AESO	50	50	50	50	50	50	50	100	100	100	100	100	100	75	50	50		
Request #																			
CONFIRMED request #101	BPAT>AESO					25	25	25	25	25	25	25	25	25	25	25	25	12	2
CONFIRMED request #301	BPAT>AESO					25	25	25	25	25	25	25	25	25	25	25	25	12	2
REMAINING ATC		50	50	50	50	0	0	0	50	50	50	50	50	50	25	0	0		
Request #201	BPAT>AESO									25	25	25	25	25	25	25	25	8	3
UPERSEDED and replaced	by #301									-25	-25	-25	-25	-25	-25	-25	-25	4	3
REMAINING ATC	_	50	50	50	50	0	0	0	50	50	50	50	50	50	25	0	0		
																			-

• Request #201 is SUPERSEDED, replaced by Pre-confirmed YES request #301 with a longer duration. Request #201 has no right to match.



## Counteroffer

## Grant Remaining Capacity (GRC)

Grant Remaining Capacity is <u>only</u> offered to a competing transmission request after the original Customer has correctly matched duration

**GRC only offers a flat profile** 

BCTC communicates this offer through OASIS and changes the OASIS status to COUNTEROFFER

BCTC does not telephone the customer when the OASIS status is changed to COUNTEROFFER

The onus is on the customer to confirm the COUNTEROFFER within the appropriate timelines


#### **COUNTEROFFER Timelines**

#### **Counteroffer Timeline Table**

Class	Service Increment	Time QUEUED Prior to start	Customer Confirmation Limit after Counteroffer
Non-Firm	Hourly	<> 1 Hour	5 minutes
Non-Firm	Hourly	Day ahead	10 minutes
Non-Firm	Daily	N/A	10 minutes
Non-Firm	Weekly	N/A	30 minutes
Non-Firm	Monthly	N/A	2 hours
Firm	Hourly	<> 1 Hour	5 minutes
Firm	Hourly	Day ahead	10 minutes
Firm	Daily	N/A	10 minutes
Firm	Weekly	N/A	30 minutes
Firm	Monthly	N/A	2 hours



#### COUNTEROFFER

- ATC is decremented at the time BCTC counteroffers
- If customer confirms the COUNTEROFFER, then the OASIS status changes to CONFIRMED
- If customer does not respond within the COUNTEROFFER Timelines, then the transmission reservation will be RETRACTED and ATC increased
- Subsequent transmission requests may be REFUSED due to insufficient ATC during the time to confirm the COUNTEROFFER



#### How to COUNTEROFFER on OASIS?

- Customer A has just MATCHED with a request for HE12 HE18, Hourly Non-Firm, BCTC>AESO
- BCTC has sent a COUNTEROFFER of 50MW for Hourly Non-firm transmission, HE12 - HE18 to customer B



Use confirm button at bottom of counteroffer request

REY_NON	4-FIRM_P 1ed: Yes	PTP_FIXED			URLY tina: No	NOI	V-FIRM	POINT_TO_PO	INT Ner	FULL_PERIOD F	IXED Affiliate: No
									,		
		Rese	rvatio	n Profi	ile				/21/2006		
Start D	Date	Stop Date	MW Req	MW Grant	мwн	Bid Price	Offer Price		50 45		
2006-0 12:00	01-21 PS	2006-01-21 18:00 PS	75	25	150.00	6.40	6.40		40 35 30		
		P	rofile	Total:	150.00				W 25 20 15 10 5 0 0 2	4 6 8 10 12 14 1 Time (Hours)	6 18 20 22 24
				Com	nents					Times	References
Status									Queued	2006-01-19 16:53:48 PS	D
Seller									Updated	2006-01-19 16:56:38 PS	S
ovider									Response		Posti
stomer	TSSUAT	Γ1									Beau
pacted	0										Reassign Sel Relat
tus Noti	ification										
		(	Custom	er: TEN	IC					Seller: BCTC	
		Phone It	EIVIC_Te	esti						hone	
		Fav								Fax	
		1 0 4									









	Comments		Times	References
Status		Queued	2006-01-19 16:53:48 PS	Deal
Seller		Updated	2006-01-19 16:56:38 PS	Sale
Provider		Response		Posting
ustomer	TSSUAT1			Permeet

BC Transmission



Building Connections

#### **Grant Remaining Capacity Scenarios**

#### This section will describe the following scenarios:

- Counteroffer is offered
- Counteroffer is not offered



#### Scenario 1 will describe when COUNTEROFFER is offered

• The constrained path is BCTC >AESO

			HE	1	2	3	- 4		
	Initial Pos	sting	BC>AESO	100	100	100	100		
CONFIRM	IED RESER	VATION						DURATIO	N
		100	BPAT>AESO	75	75	75		3	
	REMAI	NING ATC		25	25	25	100		
co	MPETING	REQUEST							
		200	BPAT>AESO	50	50	50	50	4	
	REMAI	NING ATC		-25	-25	-25	50		



						_		
			HE	1	2	3	4	
	<b>Initial Pos</b>	ting	BC>AESO	100	100	100	100	
CONFIRM	ED RESER	VATION						DURATION
		300	BPAT>AESO	75	75	75	75	4
Confin	med Count	eroffer 200		25	25	25	25	4
	REMAI	NING ATC		0	0	0	0	
		100	BPAT>AESO	75	75	75		3
DISPLACED	and replac	ed by 300		-75	-75	-75		-3
co	MPETING	REQUEST						
		200	BPAT>AESO	50	50	50	50	4
				-50	-50	-50	-50	-4
	REMAI	NING ATC		0	0	0	0	

- Request #100 is Matched with #300
- Request #200 is COUNTEROFFERED with the same duration, lower MW value and



is CONFIRMED by customer

# Scenario 2 will describe when COUNTEROFFER is <u>not</u> offered

• The constrained path is BCTC >AESO

		HE	1	2	3	4		
Initial Pos	ting	BCTC>AESO	75	75	75	100		
CONFIRMED RESER	VATION						DURATIO	N
	100	BPAT>AESO	75	75	75		3	
REMAI	NING ATC		0	0	0	100		
COMPETING	REQUEST							
	200	BPAT>AESO	50	50	50	50	4	
REMAI	NING ATC		-50	-50	-50	50		



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			HE	1	2	3	- 4	
	Initial Pos	sting	BCTC>AESO	75	75	75	100	
CONFIRM	IED RESEF	RVATION						DURATION
		300	BPAT>AESO	75	75	75	75	4
	REMA	NING ATC		0	0	0	25	
		100	BPAT>AESO	75	75	75		3
ISPLACED	and repla	ced by 300		-75	-75	-75		-3
CO	MPETING	REQUEST						
		200	BPAT>AESO	50	50	50	50	4
REFUSE	D, ATC no	t available		-50	-50	-50	-50	-4
	REMA	NING ATC		0	0	0	25	

- Request #100 is replaced by #300. There is not enough ATC to fulfill the duration of Request #200 and is subsequently REFUSED.
- Grant Remaining Capacity <u>ONLY</u> offers a flat profile



### Price ROFR

Price ROFR is only offered to an ACCEPTED <u>Non-Firm</u> request (Pre-confirmed NO) when a competing Pre-confirmed YES request has the same duration with a higher price. In other words, the following must be true:

- First Request = Pre-confirmed NO
- Competing Request = Pre-confirmed YES
- Duration = same for both requests
- Price = competing price is higher



### Price ROFR

#### **Price ROFR - how will the customer know?**

BCTC will make one attempt to notify the ACCEPTED (Pre-confirmed NO) customer to inform them they have the opportunity to exercise a Price ROFR (REBID) to avoid being displaced

If the customer is reached the customer must state their willingness to exercise the Price ROFR

If the customer is not reached then a detailed message will be left giving specifics such as the OASIS number needed for the required **<u>REBID</u>** (original request), the time the message was left and when the OASIS Expiry Timer was started A timer is started by the Pre-scheduler at the time contact is made or when the message is left

NOTE: It is the responsibility of the customer to ensure that we have the correct contact information for their company and to be available during the displacement process



#### Price ROFR - REBID

#### There is one condition under which REBID is used:

• Customer exercising Price ROFR (Pre-confirmed NO)

REBID price can be equal to or greater than the competing price up to the maximum Tariff price. If not, the REBID will be INVALID and negotiations are terminated

If the REBID is submitted with an error, the REBID will be INVALID and negotiations are terminated



#### **Price ROFR - REBID**

#### **Counteroffer Timeline Table**

Class	Service Increment	Time QUEUED Prior to start	Customer Confirmation Limit after Counteroffer
Non-Firm	Hourly	<> 1 Hour	5 minutes
Non-Firm	Hourly	Day ahead	10 minutes
Non-Firm	Daily	N/A	10 minutes
Non-Firm	Weekly	N/A	30 minutes
Non-Firm	Monthly	N/A	2 hours
Firm	Hourly	<> 1 Hour	5 minutes
Firm	Hourly	Day ahead	10 minutes
Firm	Daily	N/A	10 minutes
Firm	Weekly	N/A	30 minutes
Firm	Monthly	N/A	2 hours

REBID for day plus 1 must be completed within the confirmation limit or processed by 09:59:59 NPD whichever comes first



### REBID cont'd

**Customer** has **one** opportunity to submit a valid REBID within the REBID timelines

**Customer** can <u>only</u> REBID during the ACCEPTED timelines otherwise the request will be SUPERCEDED

#### Rebid is Invalid when...

- not preconfirmed "YES"
- it is not for same period
- the price is <u>not</u> greater or equal to the counteroffer price



#### **REBID on OASIS**

When a Non-Firm transmission request that has been ACCEPTED is followed by a valid competing Pre-confirmed request with the same duration and higher price, the ACCEPTED request will receive a Price ROFR and can match or exceed the price of the competing request.

The Customer with Price ROFR can then opt to REBID



### REBID cont'd

#### How to REBID on OASIS?

- Customer A has a Pre-confirmed NO request for 5 hours at \$3.00
- Customer B is a competing request with same duration at a price of \$5.30
- BCTC has sent a REBID for Customer A's attention through OASIS
- Customer says YES to match
- Customer goes into original request clicks on Customer update button
- A Rebid window opens up, New status must be changed to CONFIRMED and Bid Price must be equal to or greater than the competing request
- Click on the Submit Changes button to submit request



#### **REBID on OASIS**

#### Transmission Reservation Detail 69781453 REFUSED

ustomer	Update		Create	New TSR	Print \					
eller	Source Sink	POR POD	Request Type	Start	Stop	MW Req	MW Grant	Bid Price	Offer Price	
стс		GMS.MCA.REV AB.BC	ORIGINAL	2006-11-25 06:00 PS	2006-11-25 22:00 PS	100		5.30		
ath: \V/	ВСТС/ВСТС	- AESO//								
ervice (	Code		Increment	Class	Туре		Pe	riod		
RLY_NC	N-FIRM_PT	P_FIXED	HOURLY	NON-FIRM	POINT_TO_	POINT	FU	LL_PERIC	DD	
reconfirmed: Yes			Competing: No	Ne	gotiated: No	Nerc Priority: 1				

Reservation Profile												
Start Date Stop Date MW MW MWH Bid Offe												
2006-11-25 06:00 PS	2006-11-25 22:00 PS	100		1600.00	5.30							
Profile Total: 1600.00												

Comments	Times					
Status	Queued	2006-11-23 13:09:50				
Seller No available ATC	Updated	2006-11-23 13:15:07				
BC Transmission CORPORATION						

**Building Connections** 

#### **REBID on OASIS**



#### **REBID Scenario**

#### This section will describe YES to Price ROFR - REBID

- The constrained path is BCTC >AESO
- Reservation #2001 is CONFIRMED
- ACCEPTED Request #3001, 25MW, HE01-HE06 using non-firm discounted price of \$3.00
- Competing Request #4001, 25MW, HE01-HE06 with a higher price of \$3.10 has been RECEIVED



#### **REBID - Scenario 1**

		HE	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		Price	
	Initial Posting	BCTC>AESO	50	50	50	50	50	50	50	50	50	50	50	50	100	75	50	50			-
	Request #																				ļ
	2001	BPAT>AESO					25	25	25	25	25	25	25	25	25	25	25	25	12	\$3.00	
P	reconfirmed NO - 3001	BPAT>AESO										25	25	25					3	\$3.00	
Pre	econfirmed YES - 4001	BPAT>AESO										25	25	25					3	\$3.10	
	REMAINING ATC		50	50	50	50	25	25	25	25	25	-25	-25	-25	75	50	25	25			

• Duration for 3001 and 4001 is equal, therefore 3001 has the right to REBID on their original request to exceed \$3.10 and/or up to the maximum Tariff price.



#### **REBID - Scenario 1**

		HE	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	Duration	Price
	Initial Posting	BCTC>AESO	50	50	50	50	50	50	50	50	50	50	50	50	100	75	50	50	16	
	Request #																			
	2001	BPAT>AESO					25	25	25	25	25	25	25	25	25	25	25	25	12	\$3.00
Pre	econfirmed YES - 3001	BPAT>AESO										25	25	25					3	\$5.00
	REMAINING ATC		50	50	50	50	25	25	25	25	25	0	0	0	75	50	25	25		
	4001	BPAT>AESO										25	25	25					3	\$3.10
Remai	ning ATC not available											-25	-25	-25					-3	
	REMAINING ATC		50	50	50	50	25	25	25	25	25	0	0	0	75	50	25	25		

• Request 3001 increased price to \$5.00 and confirmed the original request.



#### e-Tags and Displacements

Functionality allows customers with transmission requests who submit a valid MATCH during the displacement process to retain their energy schedules

TSS automatically transfers the customer's existing energy schedule(s) to the new matching OASIS reference number

Therefore, Customers do not have to re-submit an new E-tag with the new matching OASIS reservation number



#### e-Tags and Displacements

The affected e-Tags will not be modified to reference the new matching OASIS numbers. However, TSS will reference the new matching OASIS number automatically and track the energy schedule accordingly

New e-Tags after the match is CONFIRMED must reference that new matched OASIS reference number, NOT the displaced reservation number





#### **BCTC Internet**

BCTC posts information to its internet site, as required, based upon the Negotiated Settlement

#### The NE information is available at

http://www.bctc.com/transmission\_scheduling/transaction\_data/Transaction\_Data-\_Network\_Economy/

## The transaction data has the following subfolders that stores the relevant information

- Transaction Data
  - Customer Service
  - Long-Term
  - Network Economy
    - Economic Test Results
    - Network Economy Utilization
    - Non-Firm Utilization
    - Threshold Price and Heat Rate



#### View of BCTC Internet

Http://www.bctc.com/transission_scheduling/transaction_data/     Nome & CAREERR & EVENTS & VENDORS & SUBSCRIBE & CONTACTUS     HOME & CAREERR & EVENTS & VENDORS & SUBSCRIBE & CONTACTUS     HOME & CAREERR & EVENTS & VENDORS & SUBSCRIBE & CONTACTUS     HOME & CAREERR & EVENTS & VENDORS & SUBSCRIBE & CONTACTUS     HOME & CAREERR & EVENTS & VENDORS & SUBSCRIBE & CONTACTUS     HOME & CAREERR & EVENTS & VENDORS & SUBSCRIBE & CONTACTUS     HOME & CAREERR & EVENTS & VENDORS & SUBSCRIBE & CONTACTUS     HOME & CAREERR & EVENTS & VENDORS & SUBSCRIBE & CONTACTUS     HOME & CAREERR & EVENTS & VENDORS & SUBSCRIBE & CONTACTUS     HOME & CAREERR & EVENTS & VENDORS & SUBSCRIBE & CONTACTUS     HOME & CAREERR & EVENTS     HOME & SUBSCRIBE & CONTACTUS     HOME & CAREERR & EVENTS     HOME & SUBSCRIBE & CONTACTUS     HOME & CAREERR & EVENTS     HOME & SUBSCRIBE & CONTACTUS     HOME & CAREERR & EVENTS     HOME & SUBSCRIBE & CONTACTUS     HOME & SUBSCRIBE & SUBSCRIBE & CONTACTUS     HOME & SUBSCRIBE & SUBSCRIBE & CONTACTUS     HOME & SUBSCRIBE & SUBSCRIBE & CONTACTUS     HOME & SUBSCRIBE & SUBSCRIBE & SUBSCRIBE & CONTACTUS     HOME & SUBSCRIBE	🔹 🕥 👻 👔 🏠 🔎 Search	👷 Favorites 🛛 🖉 👻 💹 👻 🧾 🎎 🦓	Links
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Transmission Scheduling       - Response to customer requests for transactional data, BCTC is pleased to post data on its insmission services.         Bulletins       - Response to customer requests for transactional data, BCTC is pleased to post data on its         Prisent Scheduling       - Customer Service         Pommer Service       - Ong-Term         Presentations       - Network Economy         Pomert Scheduling       - Network Economy         Potorsbare       - Stellements & Billing	BC Transm CORPORATION Building Connect	ABOUT BCTC COMMUNITY ENGAGEMENT REGULATORY ission THE TRANSMISSION SYSTEM GENERATOR INTERCONNECTION TRANSMISSION SCHEDULING tions	đ
	<ul> <li><b>Transmission</b> Scheduling</li> <li>Business Practices</li> <li>Bulletins</li> <li>Agreements</li> <li>Tariff &amp; Pricing</li> <li>Dynamic Scheduling</li> <li>Dynamic Scheduling</li> <li>Customer Service</li> <li>Network Economy</li> <li>Long-Term</li> <li>Workshops &amp; Presentations</li> <li>OASIS</li> <li>Settlements &amp; Billing</li> </ul>	<ul> <li>Description of the second se</li></ul>	

### Posting of Economic Test Results

	Settlement Agreement	Business Practice – Economic Test Results	/
<ul> <li>Economic Test</li> <li>Attachment Q, Section 2</li> <li>Solution 14.7 of the Open Access Transmission Tariff, for each hour in the delivery day: <ul> <li>(a) Network Economy reservations will have the priority and rights provided in section 14.7 of the Open Access Transmission Tariff only if the Market Price is less than or equal to the Trigger Price for the delivery hour; and</li> <li>(b) If the Market Price is greater than the Trigger Price for the delivery hour, Network Economy reservations will have the same priority as Non-Firm Point-To-Point service, with the exception that the provisions of section 14.2 of the Open Access Transmission Tariff providing for reservation priority based on price shall not apply.</li> </ul> </li> </ul>	<ul> <li>Economic Test</li> <li>Attachment Q, Section 2</li> <li>Notwithstanding section 14.7 of the Open Access Transmission Tariff, for each hour in the delivery day: <ul> <li>(a) Network Economy reservations will have the priority and rights provided in section 14.7 of the Open Access Transmission Tariff only if the Market Price is less than or equal to the Trigger Price for the delivery hour; and</li> <li>(b) If the Market Price is greater than the Trigger Price for the delivery hour, Network Economy reservations will have the same priority as Non-Firm Point- To-Point service, with the exception that the provisions of section 14.2 of the Open Access Transmission Tariff providing for reservation priority based on price shall not apply.</li> </ul> </li> </ul>	<ul> <li>BCTC performs the Economic Test for each hour of the delivery day and for each intertie.</li> <li>Based on the results of the Economic Test, BCTC will declare NE reservations: <ul> <li>Type 1 - normal priority, or</li> <li>Type 2 - non-firm priority.</li> </ul> </li> </ul>	

#### **Business Practice: Posting Results**

Settlement Agreement	Business Practice – Posting Results
Attachment Q, Section 2 2 the Transmission Provider will post each day on its website or OASIS by 23:59:00, whether Network Economy for each hour in the delivery day will have the priority as set out in (a) or (b).	<ul> <li>BCTC publishes the type of NE service (Economic Test result) declared by date and hour for the US-BC and AB-BC Import Interties.</li> <li>These results are posted at <a href="http://www.bctc.com/transmission_scheduling/transaction_data/Tr">http://www.bctc.com/transmission_scheduling/transaction_data/Tr</a> ansaction Data- Network Economy/economic test results/ by 23:59:00, two business days before the delivery date.</li> <li>If the delivery day is part of an Extended Delivery window, then BCTC will post Economic Test results for the appropriate days.</li> <li>BCTC posts archived Economic Test results for up to the previous 90 days on a Historical Results webpage at <a href="http://www.bctc.com/transmission_scheduling/transaction_data/Tr">http://www.bctc.com/transmission_scheduling/transaction_data/Tr</a> ansaction_Data-</li> <li>BCTC posts archived Economic Test results for up to the previous 90 days on a Historical Results webpage at <a href="http://www.bctc.com/transmission_scheduling/transaction_data/Tr">http://www.bctc.com/transmission_scheduling/transaction_data/Tr</a> ansaction_Data-</li> <li>Network Economy/economic test results/historical results.htm</li> <li>BCTC will store archived Economic Test results for up to 3 years.</li> </ul>

### Posting of Economic Test Results

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http://www.bctc.com/transmission_sch	heduling/transaction_data/Transac	tion_DataNetwork_Economy/economic	_test_results/economic_test_	results.htm	💙 🔁 Go
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BC Transm CORPORATION Building Conne	nission THE TRAN	ABOUT BCTC	COMMUNITY ENGAGEMENT	REGULATORY	
	Economic To	st Rocults			
Scheduling	Economic re				
<ul> <li>Business Practices</li> <li>Bulletins</li> <li>Agreements</li> </ul>	In compliance with the Network Economy Test between Market and Tri Economy reservations o Results link.	Network Economy Settlement ( Results page displays the results gger prices for a given day. These nnly. Previous Economic Test res	Order No. G-127-06 (PDF s of the Economic Comp: a test results are applica ults can be viewed via th	970KB), the arison Test ble to Network e Historical	≣
▹ Tariff & Pricing > Dynamic Scheduling	Latest Results				
· Transaction Data	*All results are posted as of 2	23:59 Pacific Prevailing Time (PPT)			
Customer Service	Results Applicable for	Posted on			
<ul> <li>Network Economy</li> </ul>	Jan-29-2008	<u>Jan-27-2008</u>			
Results     Historical Results     Network Economy     Utilization     Non-Firm Utilization     Threshold Price and     Heat Rate	• <u>Historical Results</u>				
<sup>.</sup> Long-Term					
› Workshops & Presentations					
> OASIS					
> Settlements & Billing					~

### Posting of Historical Economic Test Results

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http://www.bctc.com/transmission_sc	cheduling/transaction_data/Transaction	_DataNetwork_Economy/economi	c_test_results/historical_result	s.htm	💙 ラ Go
	HOME CAREERS EVEN	NTS VENDORS SUBSCRIBE	CONTACT US	► GO	<u>^</u>
		ABOUT BCTC	COMMUNITY ENGAGEMENT	REGULATORY	
DC Transr	niccion				
DC II disi CORPORATION	THE TRANSP	ISSION SYSTEM GENERATOR INT	ERCONNECTION TRANSMIS	SSION SCHEDULING	
Building Conn	ections				
		14			
Transmission	Historical Resu	lits			
Scheduling	Economic Test Results for	r up to the past 90 days can be	e viewed here.		
Business Practices	Historical Results				
> Bulletins	Thistorical Nesults				
> Agreements	*All results are posted as of 2:	3:59 Pacific Prevailing Time (PPT)			
> Tariff & Pricing	Results Applicable for	Posted on			
Dynamic Scheduling     Transaction Data	Jan-28-2008	<u>Jan-26-2008</u>			
Customer Service	Jan-28-2008	<u>Jan-25-2008</u>			
- Network Economy	Jan-28-2008	<u>Jan-24-2008</u>			
- Economic Test	Jan-27-2008	<u>Jan-25-2008</u>			
· Historical Results	Jan-27-2008	<u>Jan-24-2008</u>			
- Network Economy	Jan-26-2008	<u>Jan-24-2008</u>			
Utilization	Jan-26-2008	<u>Jan-23-2008</u>			
Threshold Price and	Jan-25-2008	<u>Jan-23-2008</u>			
Heat Rate	Jan-24-2008	Jan-22-2008			
<sup>,</sup> Long-Term	Jan-23-2008	<u>Jan-21-2008</u>			
> Workshops &	Jan-22-2008	<u>Jan-20-2008</u>			1
	Jan-22-2008	<u>Jan-19-2008</u>			
Presentations		Jan-18-2008			
Presentations > OASIS > Settlements & Billing	Jan-22-2008				
Presentations   OASIS   Settlements & Billing	Jan-22-2008 Jan-22-2008	Jan-17-2008			<u> </u>

#### **Extended Windows**

Transmission Date

Hourly Firm and Non-Firm Regular Weekend

			May	May	May	May	May	May	May
Time	Earliest Day		04	05	06	07	08	09	10
	to Buy		Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday
00:00:00	Monday	May 03, 2004	X						
00:00:00	Tuesday	May 04, 2004		X					
00:00:00	Wednesday	May 05, 2004			X				
00:00:00	Thursday	May 06, 2004				X	X		
00:00:00	Friday	May 07, 2004					X	X	X
00:00:00	Saturday	May 08, 2004						Х	X
00:00:00	Sunday	May 09, 2004							X

Saturday's transmission can be purchased as early as 00:00:00 Thursday



### **Business Practice: NE Reporting**

Settlement Agreement	Business Practice – NE Service
Agreement, Section 7	On a weekly basis, BCTC posts the following data with respect to NE service at <a href="http://www.bctc.com/transmission_scheduling/transaction_data/">http://www.bctc.com/transmission_scheduling/transaction_data/</a>
	<ul> <li>MWh Volume of NE reservations – Amount of NE transmission reservations;</li> </ul>
	<ul> <li>MWh Volume of NE Scheduled Energy – Energy scheduled on NE transmission reservations;</li> </ul>
	<ul> <li>Number of NE transactions – Number of transactions for NE transmission reservations. Number of transactions for NE with scheduled energy. Number of NE Schedules.</li> </ul>
	<ul> <li>Unused NE – MWh volume of NE transmission reservations minus MWh volume of NE energy scheduled (both adjusted for curtailments and interruptions), and the utilization percentage for each hour;</li> </ul>
	<ul> <li>NE Economic Interruptions – NE interruptions of Non-Firm Point- To-Point transmission service at XX:40, reflecting the last action that resulted in the interruption;</li> </ul>
	<ul> <li>The date and time of any change to the Threshold Purchase Price, as defined in section 1 of Tariff Supplement BCTC-1; and</li> </ul>
	<ul> <li>The current Burrard Heat Rate, as defined in section 1 of Tariff Supplement BCTC-1.</li> </ul>

### **NE Reporting**

# **BCTC reports Network Economy Utilization on a weekly** basis.

#### The data is located under

http://www.bctc.com/transmission\_scheduling/transaction\_data/Transaction\_Data-\_Network\_Economy/Transaction\_Data-\_Network\_Economy/:

≻Transaction Data

 $\rightarrow$ Network Economy

→ Network Economy Utilization



### Business Practice: Reporting cont'd

Settlement Agreement	Business Practice – Non-firm PTP Service
Agreement, Section 8	On a weekly basis, BCTC posts the following data with respect to non-firm PTP service at <a href="http://www.bctc.com/transmission_scheduling/transaction_data/">http://www.bctc.com/transmission_scheduling/transaction_data/</a> :
	<ul> <li>MWh Volume of Non-Firm Point-To-Point reservations – Amount of Non-Firm Point-To-Point transmission reservations;</li> </ul>
	<ul> <li>MWh Volume of Non-Firm Point-To-Point Scheduled Energy – Energy scheduled on Non-Firm Point-To-Point transmission reservations;</li> </ul>
	<ul> <li>Number of Non-Firm Point-To-Point transactions – Number of transactions for Non-Firm Point-To-Point transmission reservations. Number of transactions for Non-Firm Point-To- Point with scheduled energy. Number of Non-Firm Point-To- Point Energy Schedules; and</li> </ul>
	<ul> <li>Unused Non-Firm Point-To- Point – MWh volume of Non-Firm Point-To-Point transmission reservations minus MWh volume of Non-Firm Point-To-Point energy scheduled (both adjusted for curtailments and interruptions) and the utilization percentage for each hour.</li> </ul>

#### **Non-Firm Reporting**

As required under Section 8, BCTC reports on all Non-Firm Utilization on a weekly basis and this report shows data for all customers on all paths

#### The report is titled "Non-Firm Utilization" report

The data is located under http://www.bctc.com/transmission\_scheduling/transaction\_data/Transaction\_Data-\_\_\_\_\_\_Network\_Economy/Non-Firm\_Utilization/:

Transaction Data

→Network Economy

→ Non-Firm Utilization


# Business Practice: Reporting cont'd

Sottlement Agreement	Business Practice					
Settlement Agreement	Weekly Utilization Reports					
Attachment Q, Section 5	On a weekly basis, BCTC posts the following data with respect to non-firm PTP service at http://www.bctc.com/transmission_scheduling/transaction_data/Transaction_on_DataNetwork_Economy/Non-Firm_Utilization/:					
	<ul> <li>MWh volume of total energy scheduled for hourly and daily non-firm PTP services for the applicable week of the Utilization Test reporting period, as per Attachment Q, Section 5 of the Tariff; and</li> </ul>					
	<ul> <li>MWh volume of total reservations for hourly and daily non- firm PTP services for the applicable week of the Utilization Test reporting period, as per Attachment Q, Section 5 of the Tariff.</li> </ul>					

BC Transmission

**Building Connections** 

# **Non-Firm Reporting**

As required under Attachment Q, BCTC reports on Hourly and Daily Non-Firm Utilization by non-network customers on a weekly basis and this report is used in the Utilization Test Results

The report is titled "Non-Firm Utilization" report

The data is located under

http://www.bctc.com/transmission\_scheduling/transaction\_data/Transaction\_Data-Network\_Economy/Non-Firm\_Utilization/:

➤Transaction Data

→Network Economy

→ Non-Firm Utilization



### Business Practice: Transmission Processing

Cottlement Agreement	Business Practice
Settlement Agreement	Transmission Processing
Attachment Q, Section 2	<ul> <li>Once a NE reservation has been received, and the priority type for the service assigned based on the Economic Test (Type 1 or Type 2), the reservation will not undergo any further Economic Testing, and the assigned priority type will persist regardless of any changes.</li> </ul>
	<ul> <li>BCTC will determine the ATC available for the reservation and the cutting order of the reservation based upon whether the reservation was assigned a Type 1 or Type 2 priority.</li> </ul>
Agreement, Section 6 Attachment Q, Section 3 Attachment Q, Section 5	<ul> <li>If a network customer fails the Utilization Test, then in the next calendar month any subsequent NE requests for the next hour that are submitted after xx:30 and before xx:40 will be assigned Type 2 priority.</li> </ul>
	<ul> <li>If a network customer passes the Utilization Test, then in the next calendar month if any of the hours are of Type 2 then the reservation will be assigned Type 2 priority; otherwise, the reservation will be assigned Type 1 priority.</li> </ul>
	<ul> <li>In determining priority BCTC will exclude any hours with a 0 MW entry (a gap in the transmission reservation).</li> </ul>

### **OASIS Network Economy Type 1 Transmission**



# **OASIS Network Economy Type 2 Transmission**

		Trans	mission	Reserva	tion Detail	69783513		RMED				Back
Customer L	Ipdate	C	reate New TSR	]	Post For Resale		TransAssign		Print	View		Audit
Seller	Source Sink	POR POD	!	Request Type	Start	Stop	MW Req	MW Grant	Bid Price	Offer Price	Ceiling Price	Price Unit
BCTC		AB.BC BCTC.NTVVK.LI	)	ORIGINAL	2007-02-23 12:00 PS	2007-02-23 16:00 PS	50	50	0.00	0.00	5.30	\$CDN/MWh
Path: W/B	CTC/AES	O - BCTC//										
Service Co	de			Increment	Class	EV.	Туре	P	eriod		Window	Subclass
HRLY_SEC	_NETWRP	K_PIP_FIXED	Composi		SECONDA	kRY stisted: No	NETWORK	Hara Dr	JLL_PERIOD		FIXED	at No.
riecomirm	ieu: res		Competi	III. NU	Neg	Juated: NU		Nerc PI	Tority: T		Annat	e. NO
		Reservation P	rofile				2	23/2007				
Start [	)ata d	Stop Date MW M	W MWH	Bid Offer				50				
Start		Req Gr	ant Tri F	Price Price				45 40				
2007-0 12:00	12-23 PS	2007-02-23 16:00 PS 50 /	50 200.00	0.00 0.00				35				
12.00		Profile Tot	al: 200.00	0.00 0.00			M	/ 25 20				
								15				
								5				
								U 0 2	4 6 8 .	10 12 14	16 18 20 22	24
										nine (nodis)		
			Con	nments					Times		R	eferences
Status			Con	nments					Times	44.00	R	eferences
Status	Network	Factoria Turo (	Con	nments			Q	reued 200	<b>Times</b> 7-02-23 11:39	:14 PS	R	eferences Deal
Status Seller	Network	t Economy - Type 2	Con	nments			Qu	ieued 2003 dated 2003	<b>Times</b> 7-02-23 11:39 7-02-23 11:39	:14 PS :50 PS	R	eferences Deal Sale
Status Seller Provider	Network	τ Economy - Type 2	Con	nments			Q1	ieued 2003 dated 2003	<b>Times</b> 7-02-23 11:39 7-02-23 11:39	:14 PS :50 PS	R	eferences Deal Sale
Status Seller Provider	Network	x Economy - Type 2	Con	nments			Qu Up Res	ieued 200 dated 200 ponse	Times 7-02-23 11:39 7-02-23 11:39	:14 PS :50 PS	R	eferences Deal Sale Posting
Status Seller Provider Customer	Network	x Economy - Type 2 F2	Con	nments			Ou Up Res	ieued 2001 dated 2001 ponse	Times 7-02-23 11:39 7-02-23 11:39	:14 PS :50 PS	R	eferences Deal Sale Posting Begreet
Status Seller Provider Customer Impacted	Network TSSTEST	t Economy - Type 2 F2	Con	nments			Ou Up Res	dated 2001 dated 2001 ponse	Times 7-02-23 11:39 7-02-23 11:39	:14 PS :50 PS	R	eferences Deal Sale Posting Request Reassigned
Status Seller Provider Customer Impacted	Network TSSTEST	t Economy - Type 2 F2	Con	nments			Ou Up Res	dated 2007	Times 7-02-23 11:39 7-02-23 11:39	:14 PS :50 PS	R	eferences Deal Sale Posting Request Reassigned Seller

### OASIS – Network Economy Type 2 Transmission Failed UTR, Tx submitted between XX:30 and XX:40



# **Energy Processing**

					Tag D	isplay AF	CSO_B	CTCDF	LOSSI	BCT	С	
			Create	e New Tag		Short Form	Approva	l Status	XML Lo	g F	Print	Help
	Тая	Information										
GCA	PSF	Тат Со	ude 1	LCA	Time Zor	ne: <b>PS</b> This is a ter	t tag					
AESO	BCTC	DELOS	SI. F	BCTC	Transaction type: Normal							
11200	2010	DIDOR										
	Contac	t Information						Market	Path			
SF Code	BCTC					PSE	1	Product		Contract		Mise
SE Contact	David	Fong			AESO		G-F					No
SE Phone	(604)4	73-2723			PWX01				_			No
PSE Fax	(604)6	96-9886			BCPSUI		L					No
Gen Contact	Syste	m Controller										
Gen Phone	(403)2	33-7476						Reque	sts			
Gen Fax	(403)2	61-7864				Time		Icound be		T'		C.t.t
Load Contact	Contr	ol Area Presch	nedule		#	1 ype		Issued by		11me		Stati
load Phone	(604)4	73-2723			<u>Cu</u>	arrent Tag						
load Fax	(604)6	96-9886			0 0		C (DSTD) 02 22 16-45				DEAD	
C 4	TP	P	SE.	POR		Physical Path POD		Se	had Entities		Contract	Mie
AESO		AESO		1 0 10	Sour	ce: AB.gen			nou Lindico		contract	No
	AESO	AESO	AB.	system		AB.BC		AESO				No
	BCTC	PWX01	AB.	.BC		BCTC.Ntwk.Ld		BCTC				No
BCTC		BCPS01			Sir	ik: BCHA						No
					Energy ar	d Transmission Pro	iles					
		E		Turner		Miw (our or)						
		Lnergy		Transmis	sion							
Start Tim	ie 👘	2/22/07 17:0	00	2/22/07 1	7:00	J WW Reservation Trans Total						
Stop Tim	e	2/22/07 18:0	00	2/22/07 1	8:00			E	inter			
				Gen		AESO			BCTC		Ra	np Dur.
Date	Star	rt	Stop	MW	Trans	TESTTx	MW	Trans	69783504	MW	Start	Stop
2/22	2	17:00	18:0	0 10		10 10	10	10		10 1	0	
		Displ	ay MWH Total:	: 10	1	10 10	10	10		10 1	0	

11	Refresh
10 -	Segment : Gen



# **Energy Processing**

4

#### Status of Tag AESO\_BCTCDFLOSSL\_BCTC

GCA	PSE	Tag Code	LCA	Authority	Creation Time
AESO	BCTC	DFLOSSL	BCTC	Internal	2007-02-22 16:45

#### **Approval Status**

Req ID	Req Type	Author	Creation Time	Approval Time	Status	Submitted	<u>AESO</u> (GCA,SCA)	AESO (TP)	AESO (GPE, TX Cust)	BCPS01 (LSE, TX Cust)	BCTC (Author)	BCTC (TP)	<u>BCTC</u> (LCA,SCA)	PNSC (SC)	PWX01 (PSE)
0	New Tag	BCTC(PSE)	2007-02-22 16:45	2007-02-22 16:51	<u>Dead</u>	Late	Approved	Approved	Approved	n/a	n/a	Denied	Denied	n/a	n/a

#### **Approval Status History**

Req ID	Request	Сонфану	Туре	Origin	Action	Action Time (PST)	User	Reason/Comment
0	Tag Creation	BCTC	PSE	INT	CREATE	2007-02-22 16:45:32	DavidFong	TSSTEST2
0	Tag Creation	BCTC	CA	INT	APPROVE	2007-02-22 16:45:33	DavidFong	
0	Tag Creation	BCTC	TP	INT	APPROVE	2007-02-22 16:45:33	DavidFong	
0	Tag Creation	BCTC	CA	INT	DENY	2007-02-22 16:46:07	WD:OATI	Insufficient AEC for the transmission reservation required
0	Tag Creation	BCTC	TP	INT	DENY	2007-02-22 16:46:08	WD:OATI	Insufficient AEC for the transmission reservation required
0	Tag Creation	AESO	CA	INT	APPROVE	2007-02-22 16:52:02	ETS auto-approval	Automatically approved by ETS
0	Tag Creation	AESO	TP	INT	APPROVE	2007-02-22 16:52:02	ETS auto-approval	Automatically approved by ETS
0	Tag Creation	AESO	PSE	INT	APPROVE	2007-02-22 16:52:02	ETS auto-approval	Automatically approved by ETS
0	Tag Creation				DEAD	2007-02-22 16:52:03	OATI	Time based approval

Refresh View Tag View XML Log Help

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## **Questions and Feedback**



