



Alternate Receipt/Delivery Flexibility

Background for Alternate Receipt/Delivery Flexibility

- Concept of Alternate Receipt/Delivery Flexibility derives from NAESB WQC Version 1.9 Standard 1.3.80
 - The standard provides for receipt and delivery point flexibility through the use of re-directs of scheduled quantities
 - Pertains to group allocations only
 - Implemented by Northern in September 2010
- Northern's implementation of NAESB Standard 1.3.80 yielded unexpected results
 - Although this functionality had been in place in Northern's allocation code since 2010, it was utilized for the first time during the winter of 2013-2014
- Northern has revised the allocation code, specifically, the order in which group flowing rights are redistributed in subsequent cycles
- New allocation code was implemented November 1, 2014

Alternate Receipt/Delivery Flexibility Rules

- When a group is allocated in a given cycle, those contracts that scheduled quantities through the point of constraint earn flowing rights
- The flowing rights that are earned by a contract cannot be transferred to another contract or between different transaction types within the same contract
- A shipper has the right to redirect scheduled quantities to:
 - Other primary or secondary **receipt points upstream** of the constraint point within any of Northern's subsequent nomination cycles for the gas day
 - Other primary or secondary **delivery points downstream** of the constraint point in any of Northern's subsequent nomination cycles for the gas day
- During Northern's allocation process in the subsequent cycle(s), each contract's current cycle nominations are evaluated against scheduled quantities through the constraint point from the previous cycle
 - As long as the total of current cycle nominations through the constraint point does not exceed the previous cycle scheduled quantity, subject to the availability of capacity and operator confirmation at the new receipt or delivery point, all nominations will be scheduled
 - If the redirected quantity cannot be scheduled at the new receipt or delivery point, then the flowing rights for the quantity that does not schedule are forfeited

Incremental Volume

- Incremental volume is the portion of a path's nomination quantity that did not schedule in the previous cycle within the existing gas day
- Ways to create incremental volume in a non-timely cycle:
 - If a brand new path is created, the entire path volume is considered incremental
 - If a change is made to any of the following fields on an existing path, the entire path volume is considered incremental:
 - Receipt or delivery point
 - Upstream or downstream contract
 - Upstream or downstream DUNS number
 - Transaction type
 - Package ID
 - If the nominated quantity on a path is increased, the difference between the path's nominated quantity and its previous cycle scheduled quantity is considered incremental

Note: If a shipper performs any of the three actions above there is no impact to the flowing rights of the other paths on its contract that remained untouched

Delivery Group Flowing Rights

- Computation of Delivery Group Flowing Rights
 - Total **firm** flowing rights earned by a contract in a delivery group is the sum of the scheduled quantities of all firm allocable paths for that contract delivering into the group
 - Total **interruptible** flowing rights earned by a contract in a delivery group is the sum of the scheduled quantities of all interruptible allocable paths for that contract delivering into the group
- Distribution of Delivery Group Flowing Rights
 - **Firm** group flowing rights earned by a contract in a delivery group are distributed in the next cycle among all of the contract's firm paths through the group
 - **Interruptible** group flowing rights earned by a contract in a delivery group are distributed in the next cycle among all of the contract's interruptible paths through the group

Delivery Group Flowing Rights

- Within a **Market delivery group allocation**, the order in which the firm group flowing rights are distributed among **FT (non-overrun) paths** is:
 1. Flowed volume
 2. Incremental volume
 - a. Gas Type (Receipt/Delivery) *
 - a. P/P
 - b. S/P, P/S
 - c. S/S
 - b. Delivery rank from highest priority to lowest
 - c. Pro rata

* Note:

- P = Primary firm
- S = Secondary firm

Delivery Group Flowing Rights

- Within a **Field delivery group allocation**, the order in which the firm group flowing rights are distributed among **FT (non-overrun) paths** is:
 1. Flowed volume
 2. Incremental volume
 - a. Gas Type (Receipt/Delivery) *
 - i. P/P
 - ii. S/P
 - iii. T/P
 - iv. P/S, S/S, T/S
 - v. P/T, S/T, Y/Y
 - b. Delivery rank from highest priority to lowest
 - c. Pro rata

* Note:

- P = Primary firm
- S = Secondary firm (the receipt/delivery point resides inside the P/P path)
- T = Tertiary firm (the receipt/delivery point resides outside the P/P path)
- Y/Y = Path has a Tertiary firm receipt point and a Tertiary firm delivery point

Delivery Group Flowing Rights

- Within a **Market or Field delivery group allocation**, the order in which the interruptible group flowing rights are distributed among **IT and FT overrun paths** is:
 1. Flowed volume
 2. Incremental volume
 - a. Commodity rate from highest to lowest
 - b. Delivery rank from highest priority to lowest
 - c. Pro rata

Delivery Group Allocation Scenario 1

Assumptions

- Northern allocates the Oakland group in the Timely cycle
- A shipper has three allocable paths nominated through the Oakland group on its transport contract

Timely cycle results:

K Path #	Path Gas Type	Del Rank	Rec Loc	Del Loc	Nom Qty	Schd Qty	Cut Qty	RR
1	S/P	2	Demarc	TBS A	100	40	60	CCG: Allocation Cut at OAKLAND ALLOCATION GROUP
2	S/P	1	Demarc	TBS B	100	100	0	
3	P/P	1	TBPL/Beatrice	TBS C	100	60	40	PRR: Confirmation Cut at TBPL/BEATRICE
					300	200	100	

- Shipper's contract achieves group flowing rights of **200 Dth** through the Oakland group constraint for the Evening cycle
- Northern continues to allocate the Oakland group in the Evening cycle

Scenario: Shipper makes no nomination adjustments on its contract for the Evening cycle

Outcome

K Path #	Path Gas Type	Del Rank	Rec Loc	Del Loc	Nom Qty	Group Flowing Rights Qty	Increm Qty
1	S/P	2	Demarc	TBS A	100	40	60
2	S/P	1	Demarc	TBS B	100	100	0
3	P/P	1	TBPL/Beatrice	TBS C	100	60	40
					300	200	100

Since the shipper did not make any nomination changes on the contract for the Evening cycle, the group flowing rights are distributed to all three paths based on existing path flowing rights, regardless of gas type or delivery rank

Delivery Group Allocation Scenario 2

Assumptions

- Northern allocates the Oakland group in the Timely cycle
- A shipper has three allocable paths nominated through the Oakland group on its transport contract

Timely cycle results:

K Path #	Path Gas Type	Del Rank	Rec Loc	Del Loc	Nom Qty	Schd Qty	Cut Qty	RR
1	S/P	2	Demarc	TBS A	100	40	60	CCG: Allocation Cut at OAKLAND ALLOCATION GROUP
2	S/P	1	Demarc	TBS B	100	100	0	
3	P/P	1	TBPL/Beatrice	TBS C	100	60	40	PRR: Confirmation Cut at TBPL/BEATRICE
					300	200	100	

- Shipper's contract achieves group flowing rights of **200 Dth** through the Oakland group constraint for the Evening cycle
- Northern continues to allocate the Oakland group in the Evening cycle

Scenario: Shipper changes the delivery rank on one path for the Evening cycle

Outcome

K Path #	Path Gas Type	Del Rank	Rec Loc	Del Loc	Nom Qty	Group Flowing Rights Qty	Increm Qty
1	S/P	1	Demarc	TBS A	100	40	60
2	S/P	1	Demarc	TBS B	100	100	0
3	P/P	1	TBPL/Beatrice	TBS C	100	60	40
					300	200	100

A change to a path's delivery rank does not cause that path's volume to be considered incremental in the allocation process. In this case, the group flowing rights are distributed to all three paths based on existing path flowing rights.

Delivery Group Allocation Scenario 3

Assumptions

- Northern allocates the Oakland group in the Timely cycle
- A shipper has three allocable paths nominated through the Oakland group on its transport contract

Timely cycle results:

K Path #	Path Gas Type	Del Rank	Rec Loc	Del Loc	Nom Qty	Schd Qty	Cut Qty	RR					
1	S/P	2	Demarc	TBS A	100	40	60	CCG: Allocation Cut at OAKLAND ALLOCATION GROUP					
2	S/P	1	Demarc	TBS B	100	100	0						
3	P/P	1	TBPL/Beatrice	TBS C	100	60	40	PRR: Confirmation Cut at TBPL/BEATRICE					
					300	200	100						

- Shipper's contract achieves group flowing rights of **200 Dth** through the Oakland group constraint for the Evening cycle
- Northern continues to allocate the Oakland group in the Evening cycle

Scenario: Shipper changes the receipt point on one path for the Evening cycle

Outcome

K Path #	Path Gas Type	Del Rank	Rec Loc	Del Loc	Nom Qty	Group Flowing Rights Qty	Increm Qty
1	S/P	2	Demarc	TBS A	0	0	0
2	S/P	1	Demarc	TBS B	100	100	0
3	P/P	1	TBPL/Beatrice	TBS C	100	100	0
4	P/P	2	REX/Gage County	TBS A	100	0	100
					300	200	100

- The first 160 Dth of group flowing rights are distributed based on existing path flowing rights: Path 2 receives 100 Dth and Path 3 receives 60 Dth
- The remaining 40 Dth of group flowing rights are distributed based on delivery rank within the P/P gas type bucket: Path 3 receives additional 40 Dth

Delivery Group Allocation Scenario 4

Assumptions

- Northern allocates the Oakland group in the Timely cycle
- A shipper has three allocable paths nominated through the Oakland group on its transport contract

Timely cycle results:

K Path #	Path Gas Type	Del Rank	Rec Loc	Del Loc	Nom Qty	Schd Qty	Cut Qty	RR
1	S/P	2	Demarc	TBS A	100	40	60	CCG: Allocation Cut at OAKLAND ALLOCATION GROUP
2	S/P	1	Demarc	TBS B	100	100	0	
3	P/P	1	TBPL/Beatrice	TBS C	100	60	40	PRR: Confirmation Cut at TBPL/BEATRICE
					300	200	100	

- Shipper's contract achieves group flowing rights of **200 Dth** through the Oakland group constraint for the Evening cycle
- Northern continues to allocate the Oakland group in the Evening cycle

Scenario: Shipper increases its nominated volume on one path for the Evening cycle

Outcome

K Path #	Path Gas Type	Del Rank	Rec Loc	Del Loc	Nom Qty	Group Flowing Rights Qty	Increm Qty
1	S/P	2	Demarc	TBS A	100	40	60
2	S/P	1	Demarc	TBS B	100	100	0
3	P/P	1	TBPL/Beatrice	TBS C	200	60	140
					400	200	200

An increase to a path's nominated volume does not cause that path's full nominated volume to be considered incremental in the allocation process. In this case, the group flowing rights are distributed to all three paths based on existing path flowing rights.

Receipt Group Flowing Rights

- Computation of Receipt Group Flowing Rights
 - Total **firm** flowing rights earned by a contract in a receipt group is the sum of the scheduled quantities of all firm allocable paths for that contract delivering out of the group
 - Total **interruptible** flowing rights earned by a contract in a receipt group is the sum of the scheduled quantities of all interruptible allocable paths for that contract delivering out of the group
 - When a contract has multiple allocable paths that are sourced within a receipt group, its group flowing rights will be preserved separately for those paths that are **direct transport paths** compared to those that are **pool takeaway paths**
 - A **direct transport path** is a transportation path sourced from a physical point
 - A **pool takeaway path** is a transportation or storage path sourced from a pooling point

Receipt Group Flowing Rights

- Distribution of Receipt Group Flowing Rights

<i>Distribution Order Within the Contract</i>	<i>Path Type which Earned Group Flowing Rights in Previous Cycle</i>		<i>Path Type which Receives Group Flowing Rights in Next Cycle</i>
1	Direct Transport	----->	Direct Transport
2	Direct Transport	----->	Pool Takeaway
1	Pool Takeaway	----->	Pool Takeaway _ same pool
3	Pool Takeaway	----->	Pool Takeaway _ different pool (PLP)
4	Pool Takeaway	----->	Direct Transport (LP)

Distribution of Initial Group Rights

Distribution of Remaining Group Rights

- See the next slide for a more detailed description of the table above*

Receipt Group Flowing Rights

- When a contract has earned group flowing rights in a receipt group, then in the next cycle, the distribution of the group flowing rights is as follows:
 1. Firm (interruptible) group flowing rights earned by the contract's:
 - **Pool takeaway paths** are distributed among all of the contract's firm (interruptible) pool takeaway paths which cross through the group constraint from the same receipt pooling point and upstream pooling contract from which the group flowing rights were earned in the previous cycle
 - **Direct transport paths** are distributed among all of the contract's firm (interruptible) direct transport paths through the group
 2. Remaining firm (interruptible) group flowing rights earned by the contract's direct transport paths are then distributed to the contract's incremental firm (interruptible) pool takeaway paths through the group
 3. Remaining firm (interruptible) group flowing rights earned by the contract's pool takeaway paths are then distributed as **Pool Lower Priority (PLP) flowing** to the contract's incremental firm (interruptible) pool takeaway paths through the group
 - **PLP flowing bucket** was developed to account for those cases when a pool takeaway path with group flowing rights transfers all or part of its group flowing rights to one or more of the contract's pool takeaway path(s) that crossed through the group constraint from a different receipt pooling point or upstream pooling contract from which the group flowing rights were earned in the previous cycle
 4. Remaining firm (interruptible) group flowing rights earned by the contract's pool takeaway paths are then distributed as **Lower Priority (LP) flowing** to the contract's incremental firm (interruptible) direct transport paths through the group
 - **LP flowing bucket** was developed to account for those cases when a pool takeaway path with group flowing rights transfers all or part of its group flowing rights among one or more direct transport path(s) within the contract

Receipt Group Flowing Rights

- Within a **Market receipt group allocation**, the order in which the firm group flowing rights are distributed among **FT (non-overrun) paths** is the same order used for Market delivery group allocations, except that receipt rank is a factor instead of delivery rank
- Within a **Field receipt group allocation**, the order in which the firm group flowing rights are distributed among **FT (non-overrun) paths** is:
 1. Flowed volume
 2. Incremental volume
 - a. Gas Type: 1) P/P; 2) P/S; 3) P/T; 4) S/P, S/S, S/T; 5) T/P, T/S, Y/Y
 - b. Receipt rank from highest priority to lowest
 - c. Pro rata
- Within a **Market or Field receipt group allocation**, the order in which the interruptible group flowing rights are distributed among **IT and FT overrun paths** is the same order used in delivery group allocations, except that receipt rank is a factor instead of delivery rank

Receipt Group Allocation Scenario 1

Assumptions

- Northern allocates the Carlton South group in the Timely cycle
- A shipper has two allocable pool takeaway paths and one direct transport path nominated through the Carlton South group on its transport contract

Timely cycle results:

K Path #	Path Gas Type	Rec Rank	Rec Loc	Up K	Del Loc	Nom Qty	Schd Qty	Cut Qty	RR
1	S/P	3	MID 17 Pooling Point	MPS 1	TBS A	100	50	50	BOP: Upstream Allocation Cut at CARLTON SOUTH ALLOCATION GROUP
2	S/P	2	MID 17 Pooling Point	MPS 1	TBS B	100	100	0	
3	P/P	1	GRLKS/Carlton	XYZ	TBS C	100	50	50	PRR: Confirmation Cut at GRLKS/Carlton
						300	200	100	

- Shipper's contract achieves group flowing rights of **200 Dth** through the Carlton South group constraint for the Evening cycle
- Northern continues to allocate the Carlton South group in the Evening cycle

Scenario: Shipper makes no nomination adjustments on its contract for the Evening cycle

Outcome

K Path #	Path Gas Type	Rec Rank	Rec Loc	Up K	Del Loc	Nom Qty	Group Flowing Rights Qty			Increm Qty
							Flow Qty	PLP Flow Qty	LP Flow Qty	
1	S/P	3	MID 17 Pooling Point	MPS 1	TBS A	100	50	0	0	50
2	S/P	2	MID 17 Pooling Point	MPS 1	TBS B	100	100	0	0	0
3	P/P	1	GRLKS/Carlton	XYZ	TBS C	100	50	0	0	50
						300	200	0	0	100

Since the shipper did not make any nomination changes on the contract for the Evening cycle, the group flowing rights are distributed to all three paths based on existing path flowing rights, regardless of gas type or delivery rank

Receipt Group Allocation Scenario 2

Assumptions

- Northern allocates the Beaver System South group in the Timely cycle
- A shipper has three allocable pool takeaway paths nominated through the Beaver System South group on its transport contract

Timely cycle results:

K Path #	Path Gas Type	Rec Rank	Rec Loc	Up K	Del Loc	Nom Qty	Schd Qty	Cut Qty	RR
1	T/P	2	MID 1-7 Pooling Point	MPS 1	Loc A	100	50	50	BOP: Upstream Allocation Cut at BEAVER SYSTEM SOUTH GROUP
2	T/P	1	MID 1-7 Pooling Point	MPS 1	Loc B	100	100	0	
3	T/P	2	MID 1-7 Pooling Point	MPS 2	Loc C	100	50	50	BOP: Upstream Allocation Cut at BEAVER SYSTEM SOUTH GROUP
						300	200	100	

- Shipper's contract achieves group flowing rights of **200 Dth** through the Beaver System South group constraint for the Evening cycle
- Northern continues to allocate the Beaver System South group in the Evening cycle

Scenario: Shipper changes the upstream contract on one path for the Evening cycle so that that path becomes sourced from the same receipt pooling point and upstream pooling contract as both of the other paths on the contract

Outcome

K Path #	Path Gas Type	Rec Rank	Rec Loc	Up K	Del Loc	Nom Qty	Group Flowing Rights Qty			Increm Qty
							Flow Qty	PLP Flow Qty	LP Flow Qty	
1	T/P	2	MID 1-7 Pooling Point	MPS 1	Loc A	100	50	17	0	33
2	T/P	1	MID 1-7 Pooling Point	MPS 1	Loc B	100	100	0	0	0
3	T/P	2	MID 1-7 Pooling Point	MPS 2	Loc C	0	0	0	0	0
4	T/P	2	MID 1-7 Pooling Point	MPS 1	Loc C	100	0	33	0	67
						300	150	50	0	100

- The first 150 Dth of group flowing rights are distributed based on existing path flowing rights: Path 1 receives 50 Dth and Path 2 receives 100 Dth
- The remaining 50 Dth of group flowing rights are distributed as PLP flowing to the contract's pool takeaway paths with incremental volume through the group. Since both paths have the same gas type priority and delivery rank, they each receive a pro rata share: Path 1 receives 17 Dth and Path 4 receives 33 Dth