Allocation of Balancing Congestion Dollars in Package 10

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Allocation Concept and Principle

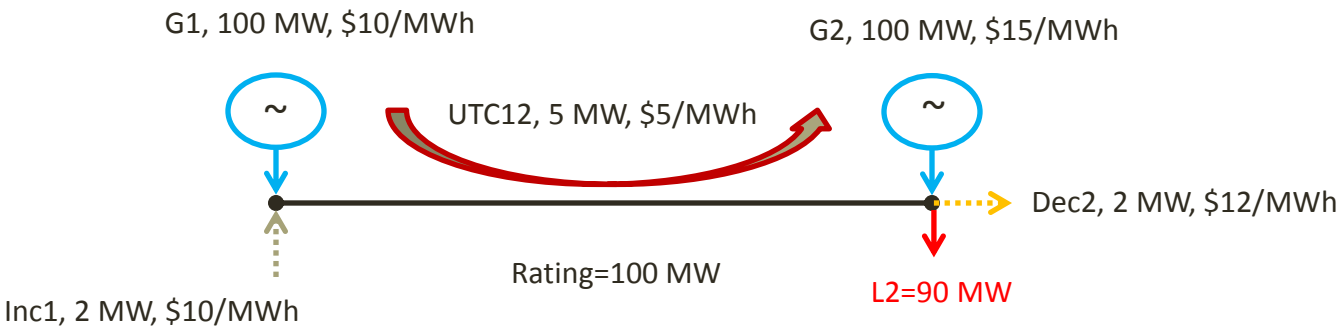
- Concept

  Balancing congestion dollars resulted from balancing settlement stay in balancing settlement.

- Principle
  - Market participants who have un-instructed deviations from their day-ahead awards pay for balancing congestion dollars.
  - Un-instructed deviations include real-time load/generation/export/import deviation MWs that are not due to PJM's instructions + Inc MWs + Dec MWs+ UTC MWs.

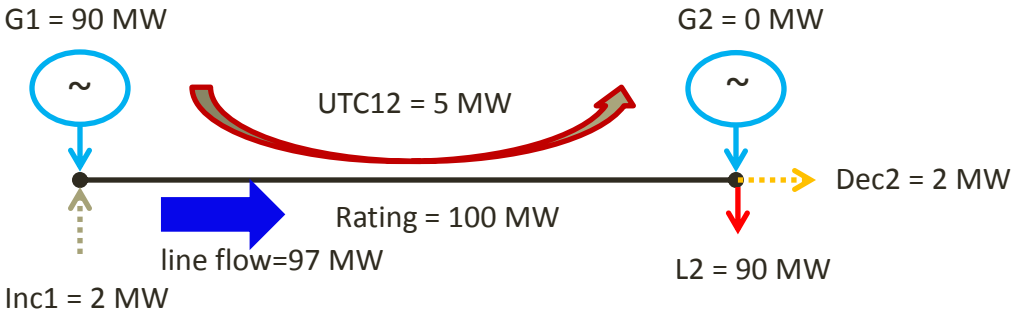
Example - Bids

	G1	G2	L2	UTC12	Inc1	Dec2
Bid MWs	100	100	90	5	2	2
Bid Dollars	$10	$15		$5	$10	$12



Example – DA Market

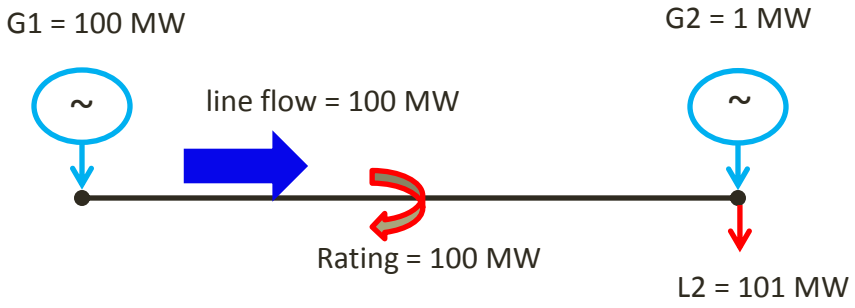
Day-ahead Settlement	G1	G2	L2	UTC12	INC1	DEC2
Cleared MWs	(90)	0	90	5	(2)	2
DA LMP1	$10				$10	
DA LMP2		$10	$10			$10
Δ DA LMP12				$0		
Payment	($900)	$0	$900	$0	($20)	$20
Total payment	$0					



LMP_1=$10 ΔLMP_{12}=$0 LMP_2=$10

Example – RT Market

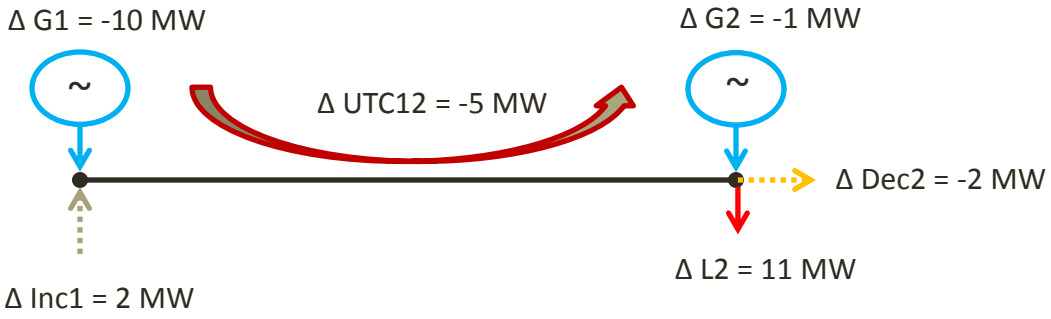
Real-time Market	G1*	G2*	L2	UTC12	INC1	DEC2
Real-time MWs	(100)	(1)	101	0	0	0
RT LMP1	$10				$10	
RT LMP2		$15	$15			$15
Δ RT LMP12				$5		
* G1 and G2 dispatched under PJM's instruction						



LMP_1=$10 ΔLMP_{12}=$5 LMP_2=$15

Example – Balancing Settlement

Balancing Settlement	G1	G2	L2	UTC12	INC1	DEC2
Δ MWs	(10)	(1)	11	(5)	2	(2)
RT LMP1	$10				$10	
RT LMP2		$15	$15			$15
Δ RT LMP12				$5		
Payment	($100)	($15)	$165	($25)	$20	($30)
Total payment	$15					



$LMP_1=\$10$ $\Delta LMP_{12}=\$5$ $LMP_2=\$15$

Example – Allocation of Balancing Congestion Dollars

	G1	G2	L2	UTC12	INC1	DEC2
Absolute Value (un-instructed Δ MWs)	0	0	11	5	2	2
Allocation of Balancing Congestion	$0	$0	$8	$4	$2	$2
Total payment	$15