



North American Energy Standards Board

801 Travis, Suite 1675, Houston, Texas 77002
 Phone: (713) 356-0060, Fax: (713) 356-0067, E-mail: naesb@naesb.org
 Home Page: www.naesb.org

April 25, 2014

TO: NAESB GEH Forum, Board of Directors, Advisory Council, posting on the NAESB web site for interested parties

RE: Comparison of Proposals – GEH Forum Meeting, April 22-23, 2014

Time Shifts (v1) All times CT	Current Std.	NOPR	NGC	INGAA	DSPS	SW Customers	IRC	Southern Co.	PGE- SoCal	NatGrid
Timely day-ahead Nom Deadline	11:30 AM	1:00 PM	1:00 PM	1:00 PM	11:30 AM	1:00 PM	2:00 PM	1:00 PM	1:00 PM	1:00 PM
Confirmations			4:30 PM	4:30 PM				4:30 PM	4:30 PM	4:30 PM
Schedule Issued	4:30 PM	4:30 PM	5:00 PM	5:00 PM	4:30 PM	4:30 PM	4:30 PM	5:00 PM	5:00 PM	5:00 PM
Start of Gas Flow	9:00 AM	4:00 AM	9:00 AM	4:00 AM	5:00 AM	5:00 AM	4:00 AM	4:00 AM	7:00 AM	2:00 AM
Reaction Time*	1.5 hours	1.5 hours	1.5 hours	1.5 hours	1.5 hours	2 hours	1.5 hours	1.5 hours	4 hours	1.5 hours
Evening Day-ahead Nom Deadline	6:00 PM	6:00 PM	6:30 PM	6:30 PM	6:00 PM	6:30 PM	6:00 PM	6:30 PM	6:00 PM	6:30 PM
Confirmations	9:00 PM	9:00 PM	9:00 PM	9:00 PM	9:00 PM	9:00 PM	9:00 PM	9:00 PM	9:00 PM	9:30 PM
Schedule Issued	10:00 PM	10:00 PM	9:30 PM	9:30 PM	10:00 PM	10:00 PM	10:00 PM	10:00 PM	9:30 PM	10:00 PM
Start of Gas Flow	9:00 AM	4:00 AM	9:00 AM	4:00 AM	5:00 AM	5:00 AM	4:00 AM	4:00 AM	7:00 AM	2:00 AM
ID1 Nom Deadline	10:00 AM	8:00 AM	9:00 AM	10:00 AM	10:00 AM	9:00 AM	8:00 AM	8:00 AM	9:00 AM	7:00 AM
Confirmations	1:00 PM	10:00 AM	11:30 AM	12:30 PM	1:00 PM	12:00 Noon	10:00 AM	10:00 AM	11:30 AM	9:00 AM
Schedule Issued	2:00 PM	11:00 AM	12:00 Noon	1:00 PM	2:00 PM	12:00 Noon	11:00 AM	11:00 AM	12:00 Noon	9:00 AM
Start of Gas Flow	5:00 PM	12:00 Noon	3:00 PM	2:00 PM	5:00 PM	3:00 PM	12:00 Noon	12:00 Noon	1:00 PM	10:00 AM
Hours of Flow	16 hours	16 hours	18 hours	14 hours	12 hours	18 hours	16 hours	16 hours	18 hours	16 hours
IT Bump Rights	bumpable	bumpable	bumpable	bumpable	bumpable	bumpable	bumpable	bumpable	bumpable	bumpable
EPSQ	33%	33%	25%	42%	50%	25%	33%	33%	25%	33%
Reaction Time	3 hours	-0.5 hours	2 hours	1.5 hours	5 hours	2 hours	-0.5 hours	1 hour	3 hours	2 hours



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Time Shifts (v1) All times CT	Current Std.	NOPR	NGC	INGAA	DSPS	SW Customers	IRC	Southern Co.	PGE- SoCal	NatGrid
ID2 Nom Deadline	5:00 PM	10:30 AM	2:00 PM	2:30 PM	7:00 PM	2:00 PM	10:30 AM	12:00 Noon	2:30 PM	11:00 AM
Confirmations	8:00 PM	1:00 PM	4:00 PM	5:00 PM	8:00 PM	3:30 PM	1:00 PM	2:00 PM	5:00 PM	1:30 PM
Schedule Issued	9:00 PM	2:00 PM	4:30 PM	5:30 PM	9:00 PM	4:30 PM	2:00 PM	3:00 PM	5:30 PM	2:00 PM
Start of Gas Flow	9:00 PM	4:00 PM	9:00 PM	6:00 PM	10:00 PM	6:00 PM	4:00 PM	4:00 PM	7:00 PM	2:00 PM
Hours of Flow	12 hours	12 hours	12 hours	10 hours	7 hours	10 hours	12 hours	12 hours	12 hours	12 hours
IT Bump Rights	no bump	bumpable	bumpable	bumpable	bumpable	bumpable	bumpable	bumpable	bumpable	bumpable
EPSQ	50%	50%	50%	58%	71%	58%	50%	50%	50%	50%
Reaction Time		2 hours	4.5 hours	2.5 hours	1 hour	2.5 hours	2 hours	1 hour	3 hours	3 hour
ID3 Nom Deadline		4:00 PM	NA	NA	NA	7:00 PM	4:00 PM	4:00 PM	7:00 PM	5:00 PM
Confirmations		5:00 PM	NA	NA	NA	7:30 PM	5:00 PM	5:30 PM	9:30 PM	7:30 PM
Schedule Issued		6:00 PM	NA	NA	NA	8:30 PM	6:00 PM	6:30 PM	10:00 PM	8:00 PM
Start of Gas Flow		7:00 PM	NA	NA	NA	9:00 PM	7:00 PM	8:00 PM	11:00 PM	8:00 PM
Hours of Flow		9 hours	NA	NA	NA	8 hours	9 hours	8 hours	8 hours	6 hours
IT Bump Rights		bumpable	NA	NA	NA	bumpable	bumpable	bumpable	bumpable	no bump
EPSQ		63%	NA	NA	NA	67%	63%	67%	67%	75%
Reaction Time		1 hour	NA	NA	NA	.5 hours	1 hour	1 hour	3 hours	1.5 hour
ID4 Nom Deadline		7:00 PM	9:00 PM	7:00 PM	10:00 PM	9:00 PM	7:00 PM	7:30 PM	10:30 PM	9:00 PM
Confirmations		8:00 PM	11:00 PM	9:30 PM	12:00 AM		8:00 PM	9:00 PM	1:00 AM	11:00 PM
Schedule Issued		9:00 PM	11:30 PM	10:00 PM	1:00 AM	10:00 PM	9:00 PM	10:00 PM	1:30 AM	11:00 PM
Start of Gas Flow		9:00 PM	12:00 AM	10:00 PM	1:00 AM	11:00 PM	9:00 PM	10:00 PM	3:00 AM	12:00 AM
Hours of Flow		7 hours	9 hours	6 hours	4 hours	6 hours	7 hours	6 hours	3 hours	2 hours
IT Bump Rights		no bump	no bump	no bump	no bump	no bump	no bump	no bump	no bump	no bump
EPSQ		71%	63%	75%	83%	75%	71%	75%	83%	92%

* Schedule issue to next nom deadline = reaction time



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Questions based on the discussions over the last two days:

1. Are there additional pipeline services that can help ensure that shippers do not run out of gas during ramp periods that could be developed in conjunction with a less severe change to the gas day (e.g., 7 am CCT as opposed to 4 am).
2. Would there be benefits to starting the gas day in the early evening (9 pm). This could have the following advantages: day-ahead scheduling would be closer to start time (and therefore more accurate based on weather forecasts); producers and LDCs could make manual adjustments during daylight hours; and sufficient bumping and no-bumping intra-day nominations could still be employed to make final adjustments to gas schedules for afternoon changes during the tail-end of the gas day; and these nominations would occur during normal business hours so that bumped gas could be redirected.



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Concepts (v1) All times CT	Current Std.	NOPR	WGL-Pied ¹	Hess ²	NNG ³	AEP ⁴	SkipStone-CLF ⁵
Timely day- ahead Nom Deadline	11:30 AM	1:00 PM	11:30 AM	11:30 AM	4 hours		1:30 PM
Confirmations							2:30 PM
Schedule Issued	4:30 PM	4:30 PM	4:30 PM	4:30 PM			3:30 PM
Start of Gas Flow	9:00 AM	4:00 AM	9:00 AM	9:00 AM		4:00 AM	6:00 AM
Reaction Time*	1.5 hours	1.5 hours	1.5 hours	1.5 hours	1 hour		2 hours
Evening day-ahead Nom Deadline	6:00 PM	6:00 PM	6:00 PM	6:00 PM	4 hours		5:30 PM
Confirmations	9:00 PM	9:00 PM	9:00 PM	9:00 PM			6:30 PM
Schedule Issued	10:00 PM	10:00 PM	10:00 PM	10:00 PM			7:30 PM
Start of Gas Flow	9:00 AM	4:00 AM	9:00 AM	9:00 AM			6:00 AM
ID1 Nom Deadline	10:00 AM	8:00 AM	10:00 AM	10:00 AM	4 hours	HOURLY	8:00 AM
Confirmations	1:00 PM	10:00 AM	1:00 PM	1:00 PM			9:00 AM
Schedule Issued	2:00 PM	11:00 AM	2:00 PM	2:00 PM			10:00 AM
Start of Gas Flow	5:00 PM	12:00 Noon	5:00 PM	5:00 PM		HOURLY	12:00 Noon
Hours of Flow	16 hours	16 hours	16 hours	16 hours		HOURLY	18 hours
IT Bump Rights	bumpable	bumpable	bumpable	bumpable	bumpable	bumpable	bumpable
EPSQ	33%	33%	33%	33%			25%
Reaction Time	3 hours	-0.5 hours	3 hours	3 hours	1 hour		2 hours
ID2 Nom Deadline	5:00 PM	10:30 AM	5:00 PM	5:00 PM	4 hours	HOURLY	1:00 PM
Confirmations	8:00 PM	1:00 PM	8:00 PM	8:00 PM			2:00 PM
Schedule Issued	9:00 PM	2:00 PM	9:00 PM	9:00 PM			3:00 PM
Start of Gas Flow	9:00 PM	4:00 PM	9:00 PM	9:00 PM		HOURLY	5:00 PM
Hours of Flow	12 hours	12 hours	12 hours	12 hours		HOURLY	13 hours
IT Bump Rights	no bump	bumpable	no bump	no bump	bumpable	bumpable	bumpable
EPSQ	50%	50%	50%	50%			46%
Reaction Time		2 hours			1 hour		2 hours
ID3 Nom Deadline		4:00 PM			4 hours	HOURLY	5:00 PM
Confirmations		5:00 PM					6:00 PM
Schedule Issued		6:00 PM					7:00 PM
Start of Gas Flow		7:00 PM				HOURLY	10:00 PM
Hours of Flow		9 hours				HOURLY	8 hours
IT Bump Rights		bumpable			bumpable	bumpable	bumpable
EPSQ		63%					67%
Reaction Time		1 hour			1 hour		1 hour



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ID4 Nom Deadline	7:00 PM				2:00 AM	8:00 PM
Confirmations	8:00 PM					9:00 PM
Schedule Issued	9:00 PM			10:00 PM		10:30 PM
Start of Gas Flow	9:00 PM				3:00 AM	2:00 AM
Hours of Flow	7 hours				1 hour	4 hours
IT Bump Rights	no bump			no bump	no bump	no bump
EPSQ	71%				4%	83%

¹Washington Gas Light & Piedmont Natural Gas Company - Suspend further discussions on any changes to the gas day or schedule for up to one year until electric interest reaches consensus on;

1. Electric market rules/tariffs require firm deliveries or no-notice service to support reliability needs.
2. Adoption of uniform national electric day.
3. Adoption of uniform national day-ahead electric market clearing times.
4. Day-ahead electric markets close prior to Timely gas nomination cycle.

²Hess / Direct Energy

- Solutions through reducing organized market clearing times.
- Bidding reflecting 2 physical gas days & use of capacity markets.
- Expanding pipeline flexibility via EPSQ, No-notice services, retro/post cycle true-ups, imbalance tolerances.

³Northern Natural Gas** / MidAmerican Energy – 8 general principles;

** NNG offers a 23rd hour true-up cycle

1. Nomination processing time of 4 hours for all cycles
2. 60 minutes between cycles
3. Unique nomination deadlines
4. Latest evening nomination concludes by 10:00 pm
5. EDI and Online nominations simultaneous
6. Three (3) intra-day cycles adequate
7. Final cycles occurs NNG normal working hours
8. Adequate computer system maintenance window is required

⁴AEP

- Hourly nominations mitigate gas day start time and gas versus power day
- Can also accept a 2 am gas day start
- Single no-bump cycle should occur late in day

⁵Skipping Stone / Conservation Law Foundation

- “Energy Day” concept starting at 6 am, or
- Two Energy Days - Eastern/Central time zones and Mountain/Pacific time zones.
- Gas nom deadlines around electric on-off peak power periods (i.e. 5x16)
- Capacity release available prior to nominations to meet market needs