Gas-Electric Coordination A NYC Generator's Perspective

Liam Baker US Power Generating

About USPG

- Owner/Operator of three generating facilities
 - -~765 MW Astoria Generating Station
 - 3 Units, 2 steam units, 1 gas turbine
 - Intermediate dispatch
 - Natural gas/#6 residual oil
 - ~ 500 MW Gowanus Gas Turbines
 - 32 units
 - Peaking
 - Natural gas (16 units); ULSD (all units)

About USPG

- ~ 250 MW Narrows Gas Turbines
 - 16 units
 - Peaking
 - Natural gas/ULSD (all units)
- Total capacity ~ 1,500 MW
- 100% merchant

Natural Gas Service

- No generator located in NYC has direct access to interstate pipeline
- Purchase of firm interstate pipeline service does not guarantee firm service inside NYC
- Two LDCs: ConEd and National Grid
 - Tariffs administered by NY PSC
 - Both tariffs provide for "power generation" service
 - Interruptible by definition
 - Both require* fuel oil back-up
 - *may be waived in certain circumstances

Firm Gas

- Doesn't exist for merchant power generation in NYC
- We have investigated the possibility of completely bypassing an LDC with an interstate pipeline.
 - Cost prohibitive
 - Would revisit with better economics PLUS reasonable opportunity for cost recovery

Firm Gas

- Firm gas costs not reflected in ICAP demand curves
 - That means there exists no opportunity to recover firm gas costs (assuming you could get it)
 - Suggestions to apply "penalties" to generators whose gas is cut are misguided
 - Some costs components of fuel oil backup are included

Firm Gas

- Firm gas costs cannot be included in energy bids
 - Offers cannot include "fixed" fuel costs
 - Bids cannot include balancing charges
 - Thus generators have no opportunity to recover costs of firm gas
- Unreasonable to think power generators should procure firm gas with no opportunity for cost recovery

Communications

- USPG uses a third party fuels manager
 - Handles sourcing, shipping and nominations across LDCs
 - Consequently, USPG rarely interacts with pipelines, occasionally with LDCs
 - Also manages liquid supply

Communications

- Concerns raised elsewhere about data confidentiality are less relevant in NYC
- USPG less concerned about NYISO knowing its gas supply situation
 - Does not understand reasoning why the NYISO thinks this would be helpful
 - However, if NYISO thinks not enough gas has been nominated, explanation needs to be provided

Communications

- Effective communications need to be two-way
- In certain situations, generators should be provided more information
- This would only benefit consumers and overall reliability
- Example:
 - generator is committed for reliability (i.e. OOM) for a Saturday
 - Generator must buy three-day gas package (Sat-Mon)
 - Generator has no idea if it will be needed Sunday & Monday
 - Why can't the generator be told that they will/won't be needed (assuming, of course, that is known)
 - In some cases we have been told (i.e. advisory "DARUs")
 - In other cases, are told the information is confidential.
 - More info means less wasted money on unneeded fuel, lower costs, better electric & gas system reliability

Things to think about

- Continue discussion about better coordination
 - Drill down on the pros and cons of moving NYISO's DA commitment.
 - May be other benefits to coordinating with adjacent RTOs
- Explore weekend/holiday electric schedules
 - Even if second day is not financially binding
 - Can the gas industry provide more weekend flexibility?
- Cease generator audits during compromised gas situations (i.e. system alerts, OFOs)
- What happens if burning fuel oil without backend controls becomes illegal?