# Minimum Oil Burn Compensation Proposal

## Market Issues Working Group

## January 17, 2007

# Agenda

- Background
- Issue Summary
- Proposed Solution
- Next Steps

# Background

- NYSRC Local Reliability Rule I-R3 states:
  - *"the NYS Bulk Power System shall be operated so that the loss of a single gas facility does not result in the loss of electric load within the New York City or Long Island zones."*
  - *The application of this rule requires select units to be capable of operating with alternative fuels and under defined load conditions to fire the generation with the alternative fuels or combination of fuels.*
- February 2006, NYS PSC adopted into Law the Reliability Council reliability rules

# Background

- The Winter Capability Period rules now state:
  - *Above 7500 MW – 2 of 3 Astoria generators must be switched to minimum oil burn*
  - *Above 9000 MW – All of the Astoria, Ravenswood and East River units should be switched to minimum oil burn*
- The Summer Capability Period rules now state:
  - *Above 8000 MW – 2 of 3 Astoria generators must be switched to minimum oil burn*
  - *Above 9000 MW – All of the Astoria, Ravenswood and East River units should be switched to minimum oil burn*

- Additional higher thresholds are under consideration for the summer capability period
- The minimum oil burn obligation does not apply to all units in the electric region

# Background

- Market Participants have identified a concern with providing a reliability service at:
  - *increased cost,*
  - *potential increased exposure to mitigation,*
  - *the economic disadvantage such a rule may impose when compared to surrounding units not exposed to the same obligations.*

# Problem Statement

- Develop a compensation program to support required reliable operation of minimum oil burn unit(s) to ensure compliance with NYSRC I-R3 and unit indifference to participation

# Proposed Solution

- LBMP Revenue
- Fixed Cost Compensation
- Margin Restoration Payment

# LBMP Revenue

- Facilitate the incorporation of short-term operating costs into market clearing prices through transparent and timely activation of minimum-oil burn obligations to allow adjustment to bid prices and corresponding reference prices.
  - *Initial invocation of minimum-oil burn obligations will occur two days in advance based upon agreed to thresholds of Zone J forecasts to support management of reference prices and bid prices into the day-ahead market.*
  - *Minimum-oil burn will be re-affirmed one day in advance to support management of reference prices and bid prices into the real-time market.*
  - *Increases in bid prices on capacity sold in the Day-Ahead Market is not permitted.*
  - *Minimum-oil burn obligations will be validated and invoked in-day. NYISO cannot support adjustments to reference prices in-day for minimum oil burn obligations occurring no earlier than in-day.*

# Timeline

| Day-2 | Proposed Process |
|---|---|
| 8:00 | NYISO Publishes Load Forecast |
| 11:00 | MOB Declared for Day -0 |
| 16:00 | DAM Reference Price Adjustments complete |
| Day-1 | |
| 5:00 | DAM closes for Day -0 |
| 8:00 | NYISO Publishes Load Forecast |
| 11:00 | MOB Declared for Day -0 |
| 22:00 | HAM Reference Price Adjustments complete |
| Day-0 | |
| 4:00 | ConEd confirms MOB for Day-0 |

# Fixed Cost Compensation

- Provide payments, not already provided for in other market payments, to compensate units for the fixed maintenance costs associated with maintaining the capability to be operated under alternative fuels:
  - *Sample costs includes fuel storage costs, facility maintenance and fuel maintenance.*
  - *Payment to be determined on a unit-by-unit basis as an annualized cost, paid in monthly installments.*
  - *Costs will be recovered from the local load.*

# Margin Restoration Payment

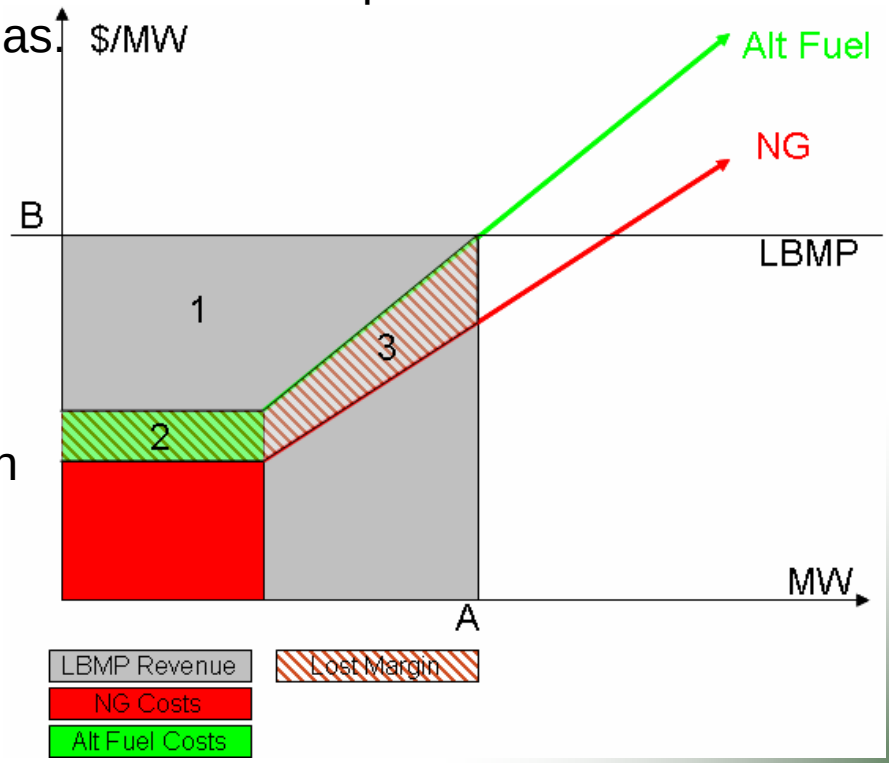
- Provide payment to unit(s) to compensate for margin consumed because unit is burning a more expensive fuel.
- Payable only during periods of time when the unit is obligated to operate under minimum-oil burn conditions and oil is more expensive than gas.
  - *Payment would be based upon actual incremental operating costs to comply with obligation, to the extent they exceed operating fuel choice costs.*
  - *Payment relieves unit of self-funding reliability-based fuel burn decision.*
  - *Costs will be recovered from the local load.*

# Margin Restoration Payment

- The payment is not intended to preserve margin that would have occurred, but for the minimum-oil burn obligation.
  - *Facilitation of an accurate accounting of the "but-for" value is not feasible.*
- Payment must be based upon the accepted market outcomes.

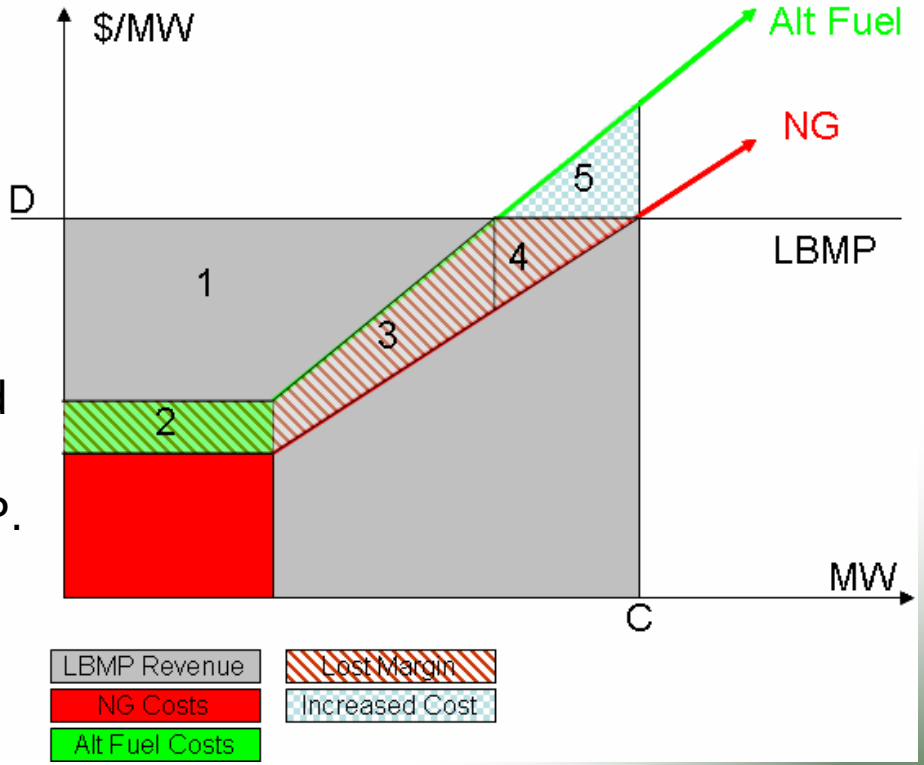
# Margin Restoration Payment

- The following diagram captures the unit bidding into the market on its alternative fuel costs and receiving a schedule of A MW at a clearing price of B LBMP. The green-box/line represent the units operating costs under the alternative fuel and the red-box/line represent the units operating costs under natural gas.
- The area identified as "lost margin" (areas 2 and 3) represents the margin that has been consumed by operating the unit under the more expensive fuel.
- The additional fuel consumption based margin restoration payment will recover the unit's consumed margin.



# Margin Restoration Payment

- The following diagram captures the same unit bidding with the less expensive fuel, either by choice or due to a late notification of dual-fuel obligations, but still obligated to operate under the dual-fuel obligation. The unit received a schedule of C MW at a clearing price of D LBMP.
- The area identified as "lost margin" (areas 2, 3 and 4) represents the margin that has been consumed by operating the unit under the more expensive fuel.
- The area identified as "increased cost" (area 5) represents fuel costs not compensated by LBMP.
- The additional fuel consumption based margin restoration payment will recover the unit's lost margin and increased costs.



# Summary of Proposal

- Incorporate short-run operating costs into reference price constructs and LBMP
- Provide fixed cost compensation for costs incurred in maintaining dual-fuel capabilities
- Provide margin restoration compensation for increased fuel costs during minimum-oil burn obligated periods.

# Next Steps

- Reach agreement with Coned on activation timeline, process and Zone J triggers.
- Identify acceptable cost components to be captured in fixed and incremental fuel-consumption based payments
- Develop tariff language
- Future Considerations:
  - *Evaluate solution options to resource commitment requirements as part of the rules assessment and the evaluation of the LRR committed units in SCUC*
  - *Evaluate lifting RT energy costs bid restrictions.*