

Issues at the Interface of Natural Gas and Electricity Prices - *Interchangeability and Control of Hydrocarbon Liquid Drop Out*

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Agenda - *Springfield 2006* *"Film Festival"*

- Trading Places
- Walk The Line
- Lost in Translation
- Cat on a Hot Tin Roof

Trading Places - *"Managing" Change*

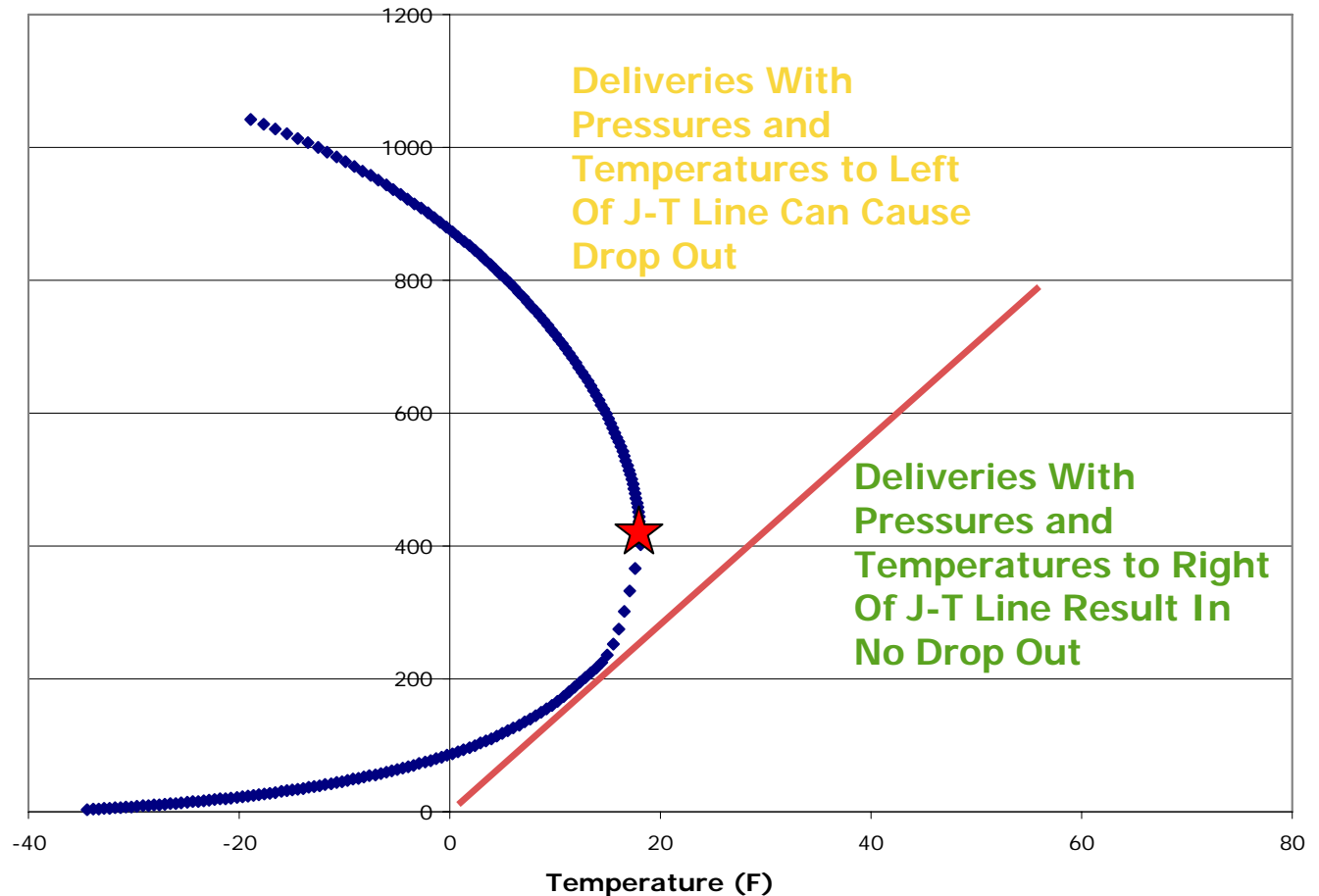
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- Sources of supply are changing - this fact is undeniable
 - Domestic conventional gas supply has likely peaked
 - Growth in supply from the Rockies, **Barnett Shale**, **Bossier Sands**, LNG and eventually, the Arctic
- **VERY IMPORTANT FACT** - Volume of Unprocessed Gas Being Consumed is Approximately 20%
- Emissions standards will continue to become more stringent (e.g.-NOx)
- Requirements and incentives for efficiency will be ever increasing
- Range of Btus are broader - "Cost Recovery Issues"
- Gas Turbines - Peak load demand on pipelines

Walk The Line -

NGC+ White Paper - Control of HC Drop Out Appendices A & B - J-T Line

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Lost in Translation - *When Is 0°F Really 12°F?*

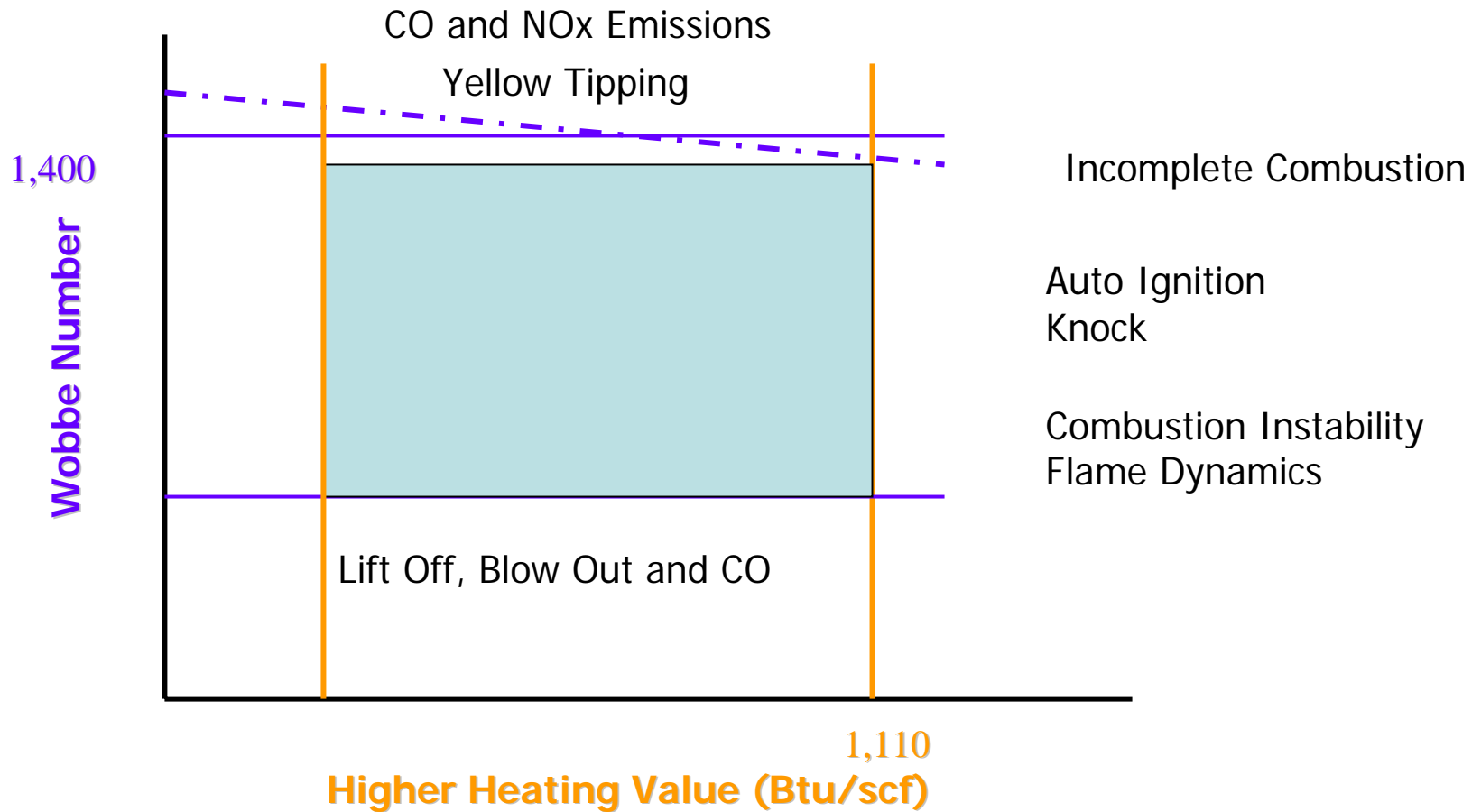
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- Example - LDC recommended an HDP limit of 0°F
- Pipeline recommended 15°F
- Underlying data were the same
- Difference was in C6:C7:C8 Split and Equation of State
- Agreement on terminology, definitions, and methods is critical
- NGC+ White Paper described importance of methods with respect to indirect determination of HDP
- Example: ANR Informational Postings define the basis applied; 47:36:17

Cat On a Hot Tin Roof - *Be Careful of Over-Specification*

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 - Heating Value - 1,110 Max
 - Wobbe - 1,400 Max
 - Historical average \pm 4% unless
 - **EXCEPTION:** Service territories with demonstrated experience with supplies **exceeding** these Wobbe, Heating Value Limits **may continue to use** supplies conforming to this experience as long as it does not contribute to safety and utilization problems of end use equipment.
 - Maximum C₄ Plus - 1.5 Mole Percent
 - Maximum Total Inerts - 4 Mole Percent

Interchangeability Operating Regime - *The Hot Tin Roof*



Summary

- Recognize Change in Supply and End-Use
- Work From a Common Platform
 - Terminology, Definitions, and Methods
 - Set Forth in NGC+ White Papers
- Move Beyond Speculation, Rely on Facts
- Keep It Simple