

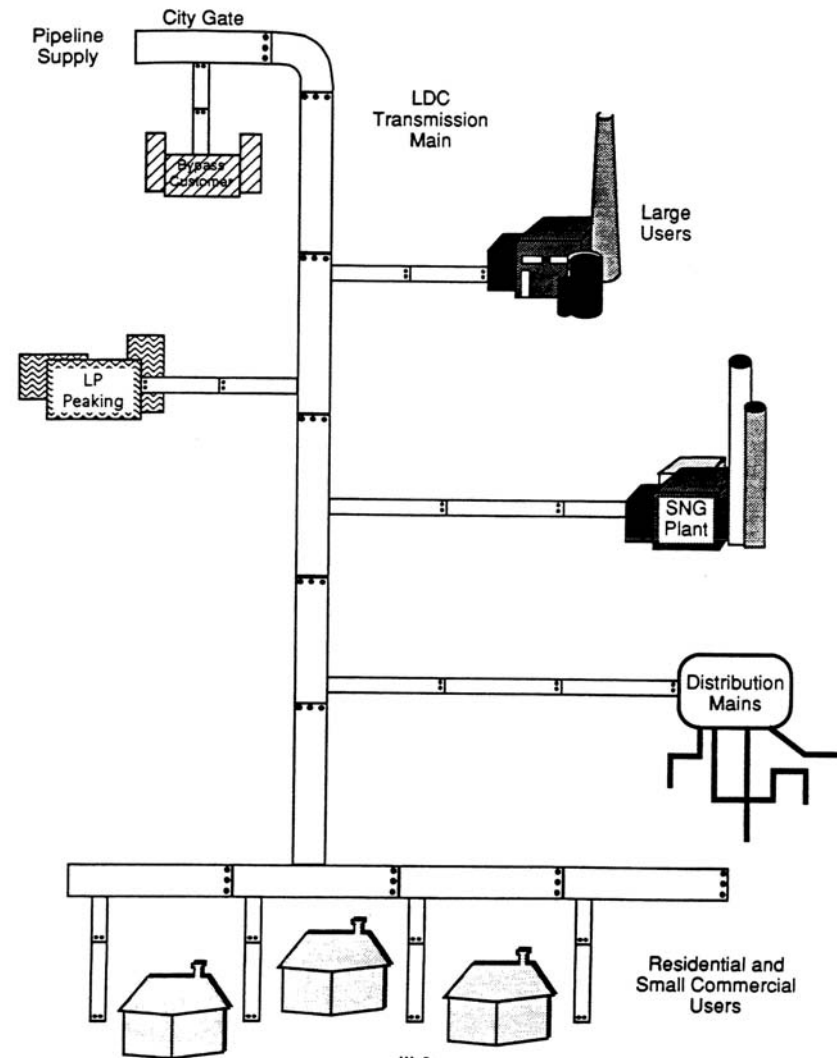
# Natural Gas -Purchased Gas Costs

AERS and PA PUC Partnership

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# Gas Distribution System



TRAIN, 60, 01047



# Purchased Gas Costs (PGC)

- The Commission implemented a PGC mechanism to stabilize gas costs and to minimize base rate filings.
- In order to recover gas cost changes, the gas utilities had to file base rate cases.
- The PGC mechanism permitted the utility to keep about 90 % of gas costs within base rates and permit a separate surcharge to account for natural gas cost changes.



# Purchased Gas Costs (PGC)

- The PGC rate is a 12 month projected average cost of gas.
- The Commission implemented an interest calculation against the utilities if they over collect.



# PGC Rate

- The PGC rate is determined or re-determined annually.
- The rate may be revised on an interim basis subject to approval of the Pennsylvania PUC upon determination that the effective rate will result in material over or under collections if not revised.
- Quarterly filings may be made after the effective date of the PGC rate.



# Filing Dates

- The Commission has set up filing dates for all the §1307(f) gas utilities.



# PGC Periods

- The PGC mechanism is a filing consisting of three time periods.
- The first time period is commonly referred to as the Historic Period or Reconciliation Period.
  - This period commences 12 months prior to the filing date.



# PGC Periods

- The second time period is the Interim Period.
  - The Interim Period is the 6 months after the Historic Period.





# PGC Periods

- The third period is the Projected Period.
  - The Projected Period consists of 12 months commencing at the end of the Interim Period.



# PGC Rate

- The PGC rate is computed in accordance with the formula set below:

$$\text{PGC rate} = \frac{C-E}{S}$$



# PGC Rate

- The C factor is the natural gas supply charge included in the PGC rate schedules.
- The E factor is included in the natural gas delivery charge in the PGC rate schedules except for those customers returning from Transportation Service.
- The S factor is the projected volume of natural gas to be billed under the PGC rate schedules during the computation year.



# Filing Requirements

- The §1307(f) natural gas utilities are required to provide 14 areas of supporting information. The requirements are:
  - 1. A listing of spot and long term source of gas supply, production, transportation and storage for the Historic and Projected Periods. In addition, the natural gas utilities must file maximum daily quantity levels (MDQ), annual MDQ, take or pay bills, name of source.
  - 2. File supporting information with the filing.
  - 3. A complete listing of sources of gas supply transportation or storage and their costs, including shut in and curtailed sources of supply, both inside and outside the Commonwealth considered by or offered to the utility, but not chosen.



# Filing Requirements

- 4. A listing of FERC proceedings.
- 5. A listing and updating of projections of gas supply and demand.
- 6. A statement of current fuel procurement practices, detailed information concerning staffing and expertise of fuel procurement staff, a discussion explaining the company's methodology for obtaining least cost and reliable sources of gas supply.
- 7. A list of off system sales, including transportation, storage or capacity releases.



# Filing Requirements

- 8. A list of transportation agreements with other utilities.
- 9. A schedule depicting historic monthly end-user transportation throughput by customer class.
- 10. A schematic system map
- 11. A listing of any rate structure or rate allocation proposed changes.



# Filing Requirements

- 12. A schedule depicting the most recent 5 year consecutive 3 day peak data by customer class.
- 13. Identification and support for any peak day methodology used to project future gas demands.
- 14. Analysis and data demonstrating the minimum gas entitlements needed to provide reliable and uninterrupted service to priority one customers during peak periods.





# Incentive Mechanisms

- The Commission has permitted several §1307(f) gas utilities to implement gas procurement incentive mechanisms and sharing mechanisms. The Commission does not have a formal policy concerning procurement incentives or sharing mechanisms.





# Incentive Mechanisms

- For example, if a gas utility can purchase spot gas at a price less than 98% of the NYMEX index for a particular month, the utility may be permitted to share 50%/50% in the savings, with the ratepayers.



# Incentive Mechanisms

- Typically, most §1307(f) gas utilities have off system sales and capacity release sharing mechanisms. An off system sale is a sale of natural gas to a customer who is not within the service territory of the utility. The natural gas utility makes a sale of gas to the “off system” customer at a rate that is greater than the cost of gas and transportation cost. The incremental revenue is then shared between the company and the §1307(f) ratepayers. Usually, the sharing percentages are 70%/30% (ratepayer/company).



# Capacity Release

- A capacity release sharing mechanism permits the gas utility to release un-needed or excess capacity into the market and recover revenues toward the demand component of the capacity. Since the ratepayers must pay for the capacity whether it is used for them or not, any incremental revenue received for un-used capacity offsets the capacity costs. Typically, the sharing of capacity release revenues is similar to the percentage split related to off system sales.



# Hedging

- Hedging, as it relates to gas procurement is the “locking-in” of a gas supply contract at a fixed rate. Usually the term of the contract is one year. However, longer term fixed rates are becoming more common. The PGC filings are showing 3-5 year contracts with a fixed rate option.
- Several of the §1307(f) utilities have investigated financial hedging (buying and selling short and long), but the utilities that have tried the financial hedges have shown losses.



# Risk

- Normally, the utility would lock-into a fixed rate option for 30% of its supply during the winter heating season to minimize the risk of price inflation caused by supply and demand.
- We have experienced winters in which the price of gas was less than forecasted. In these instances, if the gas utility utilized a pricing hedge, the ratepayers paid more for natural gas than if the utility would have purchased spot gas during the winter heating season.



# Storage

- Storage is becoming vital in the gas procurement least cost models. Storage capacity can offset the high cost of winter gas supplies.



# Gas Cost Projections

- In each filing, the utility projects natural gas costs based upon a number of indexes. One such index is the NYMEX. The NYMEX provides natural gas price estimates going forward on a monthly basis for a time period of five years.

