Natural Gas Pipeline / LDC Rates

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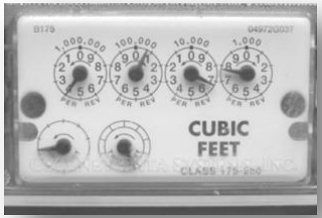
Gas Industry Structure

Producers

Pipelines

Distributors

LDC



Customers

Marketers/
Brokers

Upstream

Downstream

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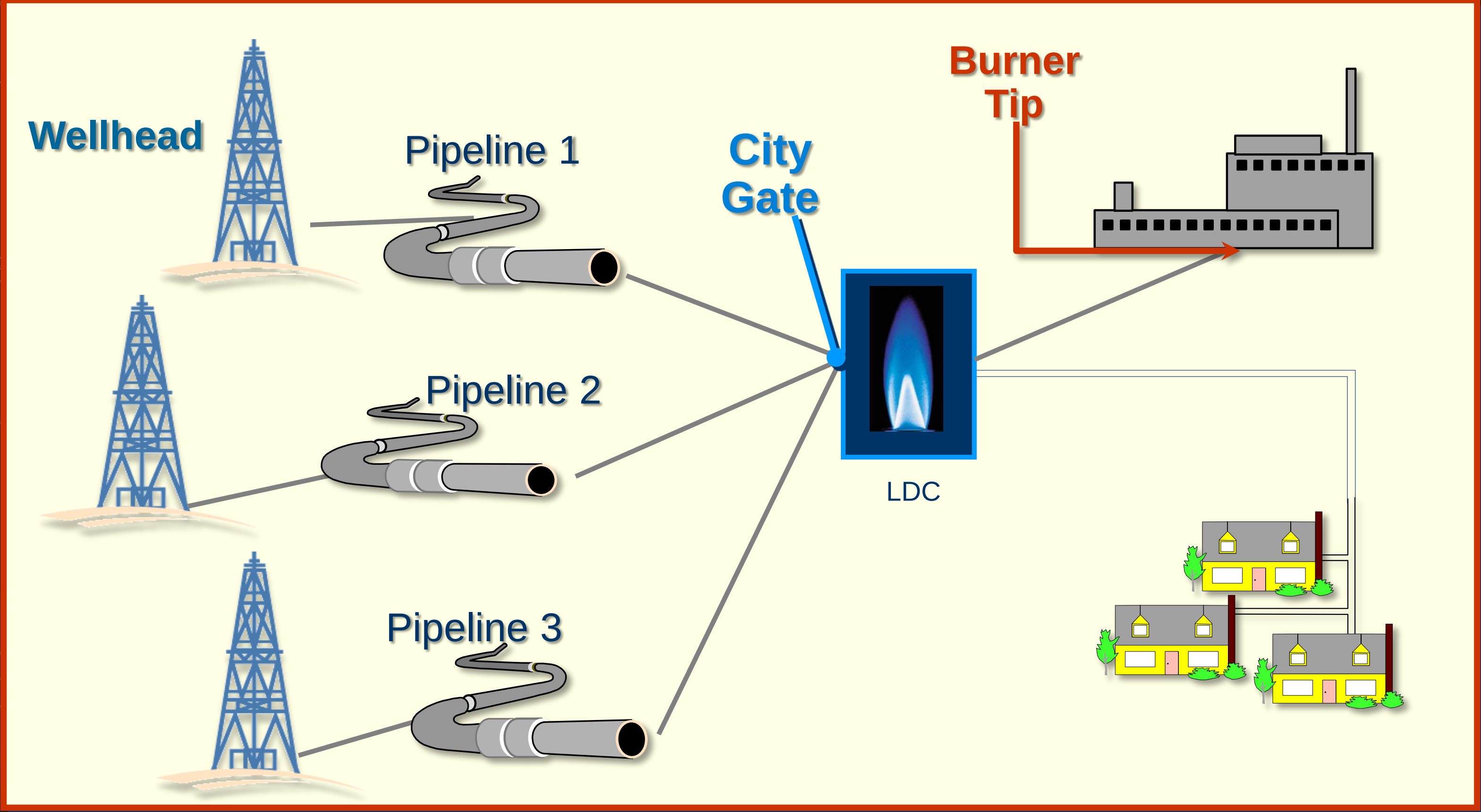
Gas Industry
Functional Structure



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Burner Tip Price ($/MMBtu)

Wellhead Price

+

Pipeline Charge

+

LDC Charge

=

Burner Tip Price

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Delivery Rates

Regulated Utility Tariff Rates

	Agency
Transmission (Pipeline Charge) →	FERC
Distribution (LDC Charge) →	State/Local

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LDC Rate Case

- Utility files proposed rates and supporting evidence
- Other parties challenge and offer alternatives
- Commission makes decision

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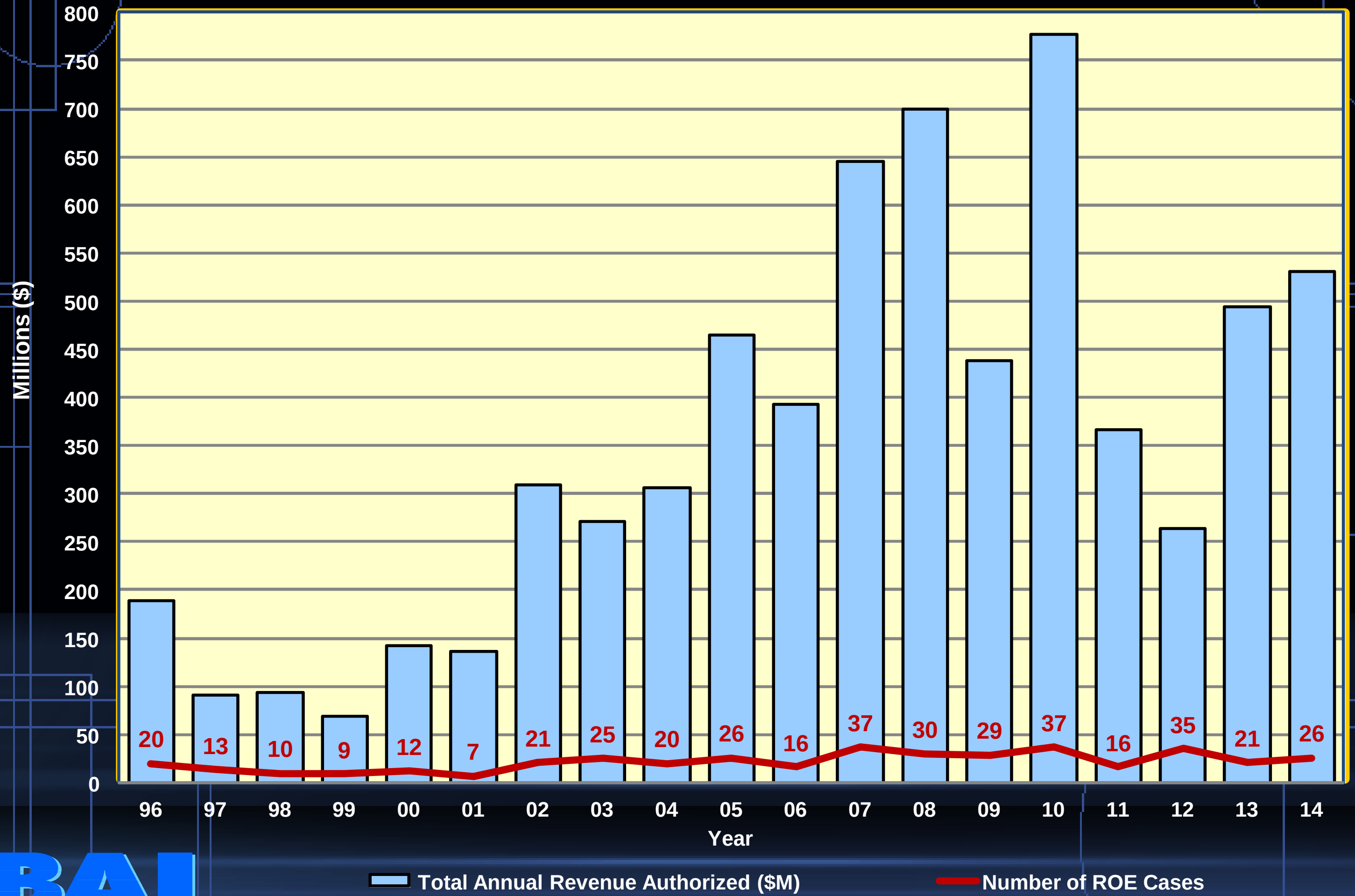
Annual Gas Rate Case Decisions and Authorized Gas Revenue Increases ($M)



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Main LDC Rate Case Issues

- Class Cost of Service
  - Volumetric vs. demand allocation
- Revenue Allocation
  - Spread of utility revenue requirement among rate classes

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Purpose of a Cost-of-Service Study

To measure the responsibility of each class for the service provided by the utility

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Typical Rate Classes in a Cost-of-Service Study

- Residential
- General Service
- Large Volume Service
- Interruptible
- Transportation

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Cost Study Should Reflect:

- Many different types of cost
- Some customers do not use all of the services provided by an LDC
- Usage patterns affect cost incurrence

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Procedure

1) Identify different types of cost
2) Determine causative basis for each type
3) Allocate each item among classes

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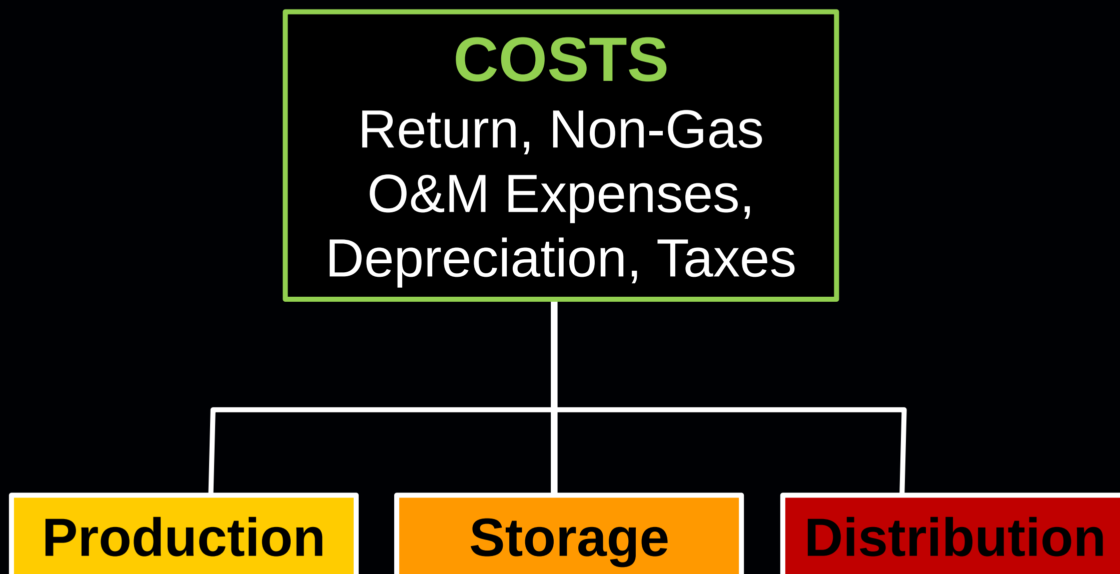
Functionalization



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Classification

Determine the primary causative factor for each type of cost

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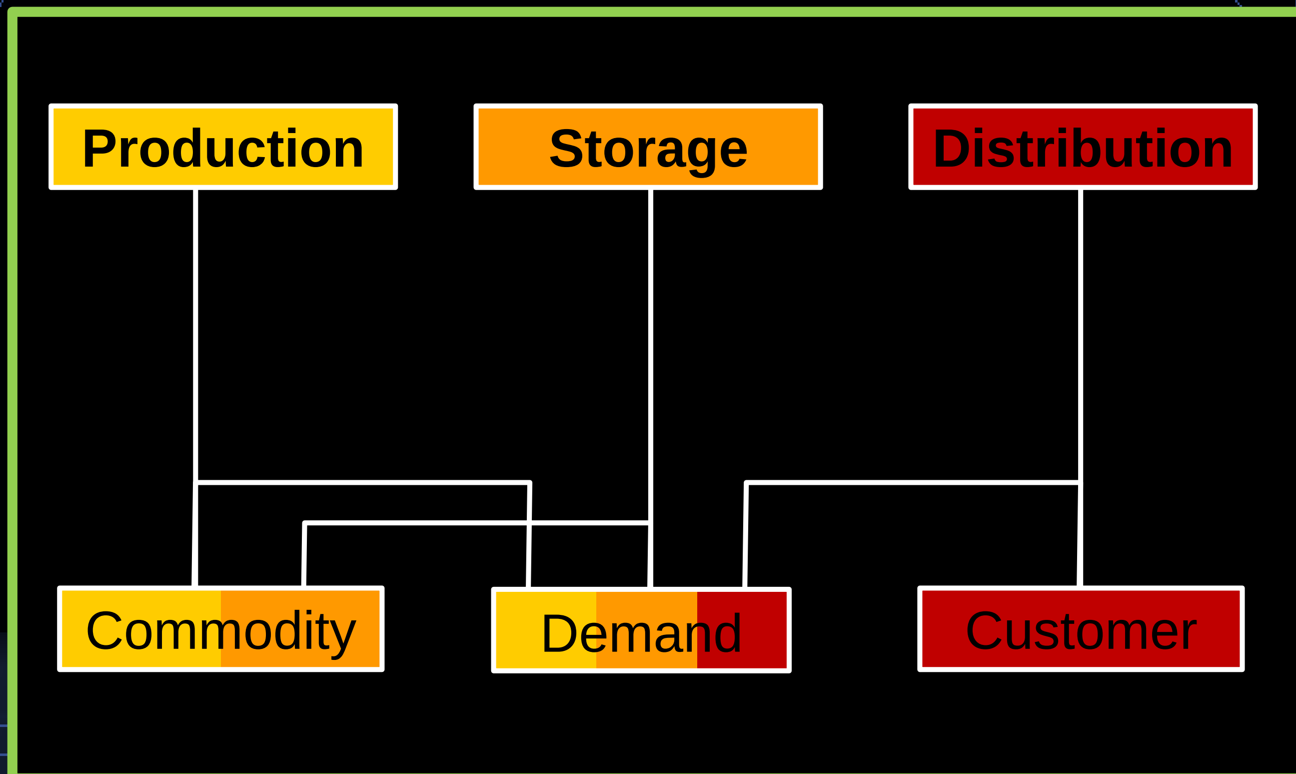
Classification



Classification Categories

- Direct assignment
- Number of customers
- Commodity (Mcf or therm usage)
- Demand requirements
  (Maximum rate of usage – Mcf per day)
- Revenue related

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Classification of Plant

	Customer	Demand	Commodity
Production		✓	✓
Storage		✓	✓
Distribution	✓	✓	
General	✓	✓	✓

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Classification of Expense

	Customer	Demand	Commodity
Production		✓	✓
Storage		✓	✓
Distribution	✓	✓	
Customer Acct.	✓		
Admin. & Gen.	✓	✓	✓

Methods of Allocation

- Cost causation
- “Benefits”
- Social / Political Policy
- End results

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Demand Allocation Methods

General Criteria

- Cost causation
- Recognize utility's load characteristics
- Choice of method can be controversial

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Demand Allocation Methods

- Coincident Peak
- Non-Coincident Peak
- Average and Excess
- Average and Peak
- Average Demand

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Coincident Peak Allocation Method

	Mcf	Percent
Residential	54,125	54.00%
General Serv.	32,000	31.93%
Interruptible	7,100	7.09%
Transportation	7,000	6.98%
TOTAL	100,225	100.00%

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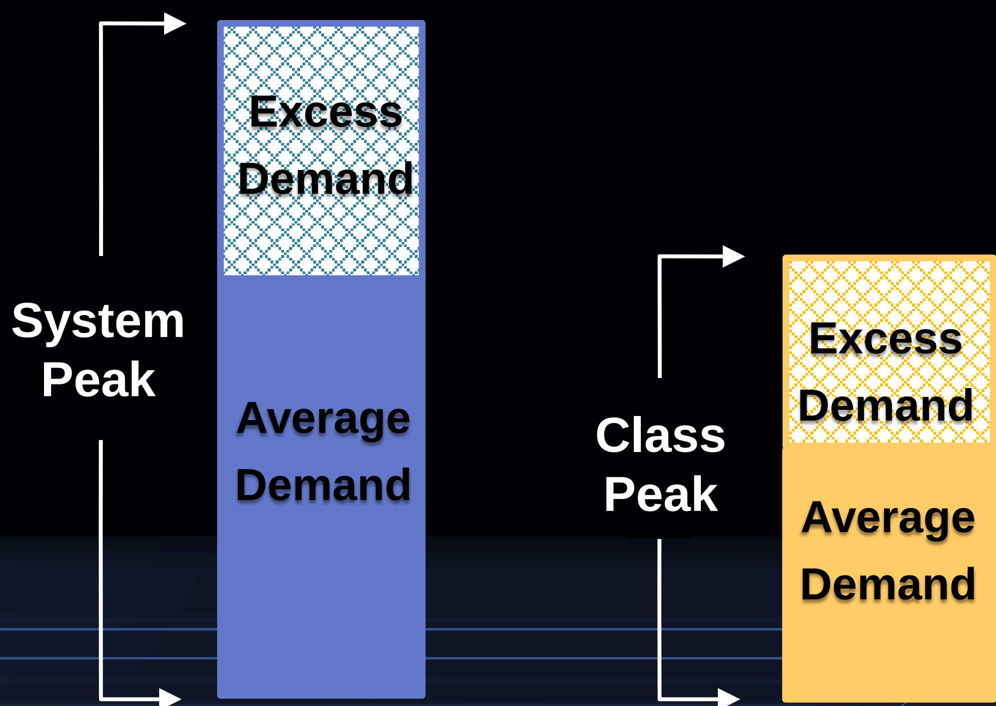
Average & Excess Method



Average & Excess Method

	Average Demand %	LF	Excess Demand %	1 - LF	AED %
Res	32.5%	37%	64.9%	63%	52.9%
GS	29.5%	37%	33.2%	63%	31.8%
IS	20.9%	37%	0.1%	63%	7.8%
Transp.	17.1%	37%	1.8%	63%	7.5%

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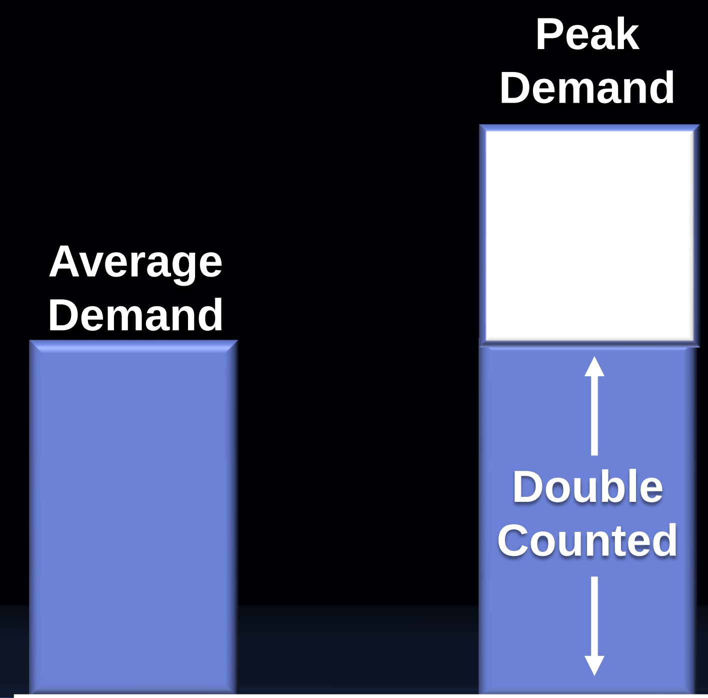
Average & Peak Method



Average & Peak Method

	Average Demand %	LF	Peak Demand %	1 - LF	AEP %
Res	32.5%	37%	58.9%	63%	49.2%
GS	29.5%	37%	33.7%	63%	32.1%
IS	20.9%	37%	0.0%	63%	7.7%
Transp.	17.1%	37%	7.4%	63%	11.0%

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Average Demand or Commodity Allocation Factors

	Annual Mcf Throughput	Percent
Residential	4,015,479	32.5%
General Serv.	3,635,714	29.5%
Interruptible	2,577,034	20.9%
Transportation	2,114,666	17.1%
TOTAL	12,342,893	100.0%

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Coincident Demand vs. Average and Peak

Distribution Mains Acct. 376 Net Plant - $1,000,000,000

Average & Peak Allocation

Rate Schedule		Amount	Peak Day CCF	Annual Volume CCF	Load Factor %		Net Plant $/CCF Peak Day	Index
Residential	$	502,789,056	10,000,000	1,100,000,000	30.1%	$	50.28	0.96
Commercial	$	370,697,833	7,000,000	900,000,000	35.2%		52.96	1.01
Transportation	$	126,513,110	2,000,000	400,000,000	54.8%		63.26	1.20
Total	$	1,000,000,000	19,000,000	2,400,000,000	34.6%	$	52.63	1.00

Coincident Demand Allocation

Rate Schedule		Amount	Peak Day CCF	Annual Volume CCF	Load Factor %		Net Plant $/CCF Peak Day	Index
Residential	$	526,315,789	10,000,000	1,100,000,000	30.1%	$	52.63	1.00
Commercial	$	368,421,053	7,000,000	900,000,000	35.2%		52.63	1.00
Transportation	$	105,263,158	2,000,000	400,000,000	54.8%		52.63	1.00
Total	$	1,000,000,000	19,000,000	2,400,000,000	34.6%	$	52.63	1.00

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Allocation of System Peak Day Capacity

Peak Day Capacity (CCF) = 18,744,947

Peak & Average Allocation

Rate Schedule	Coincident Peak Day Demand CCF	Average & Peak Allocated Peak Day Capacity CCF	Surplus/(Shortfall) in Allocated Peak Day Capacity CCF	Surplus/(Shortfall) in Allocated Peak Day Capacity %
Non-Heating Residential	78,779	87,429	8,650	11.0%
Residential	8,823,800	8,664,723	(159,077)	-1.8%
Commercial	8,229,751	8,202,764	(26,987)	-0.3%
Transportation	1,612,617	1,790,031	177,414	11.0%
Total	18,744,947	18,744,947	-	0.0%

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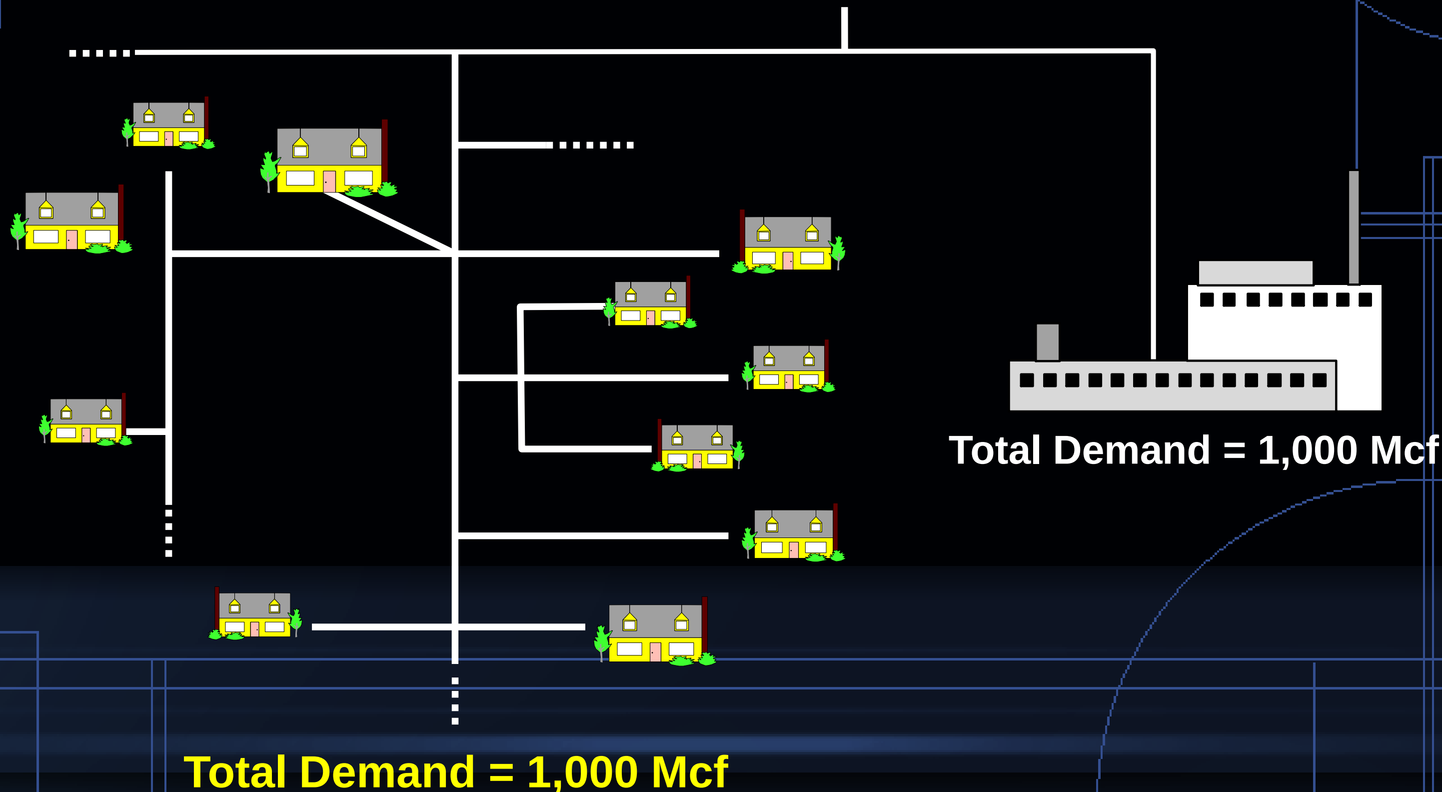
Customer Classification of Distribution Mains



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Minimum Distribution Method for Deriving Customer Related Component of Distribution Main

1)	Diameter of smallest main	1.5”
2)	Cost/foot of 1.5” main	$0.61 / ft.
3)	Total length of mains	6,385,860 ft.
4)	Cost if all mains were 1.5” diameter	$3,988,733
5)	Actual cost of mains	$19,326,453
6)	Customer portion (4) / (5)	20%

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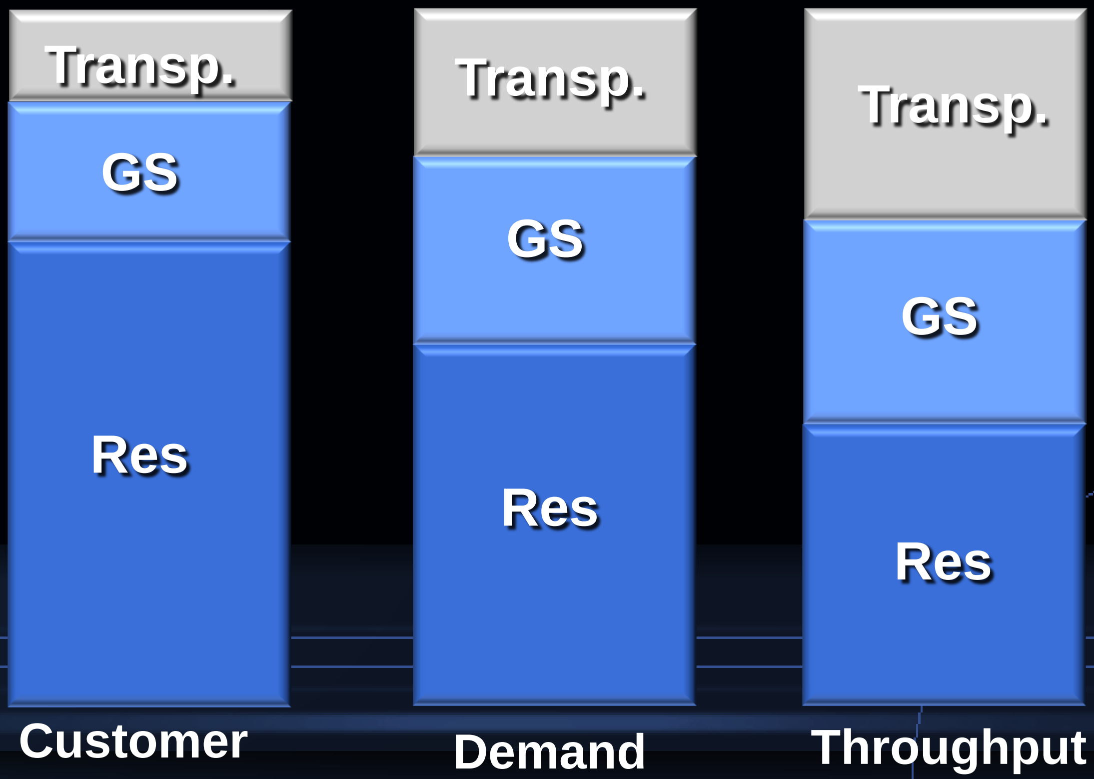
Cost-of-Service Study

Comparison of Allocation Factors



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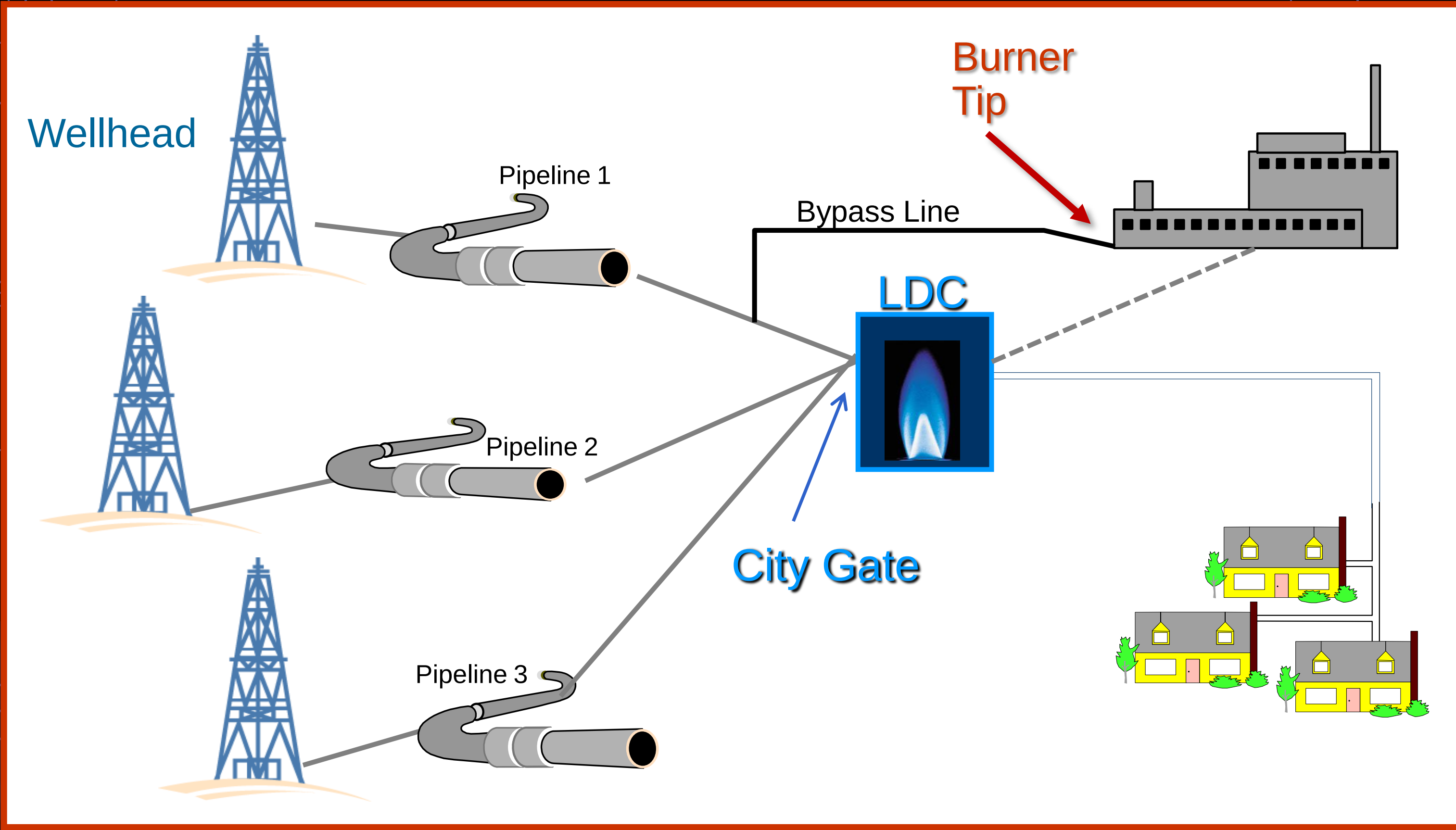
Bypass of an LDC



Potential Advantages of Bypass

- Lower price
- Deal directly with pipeline
- Decrease state regulation
- Choice of service
- Sometimes alternate pipeline supplier

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Potential Disadvantages of Bypass

- Only one pipeline supplier
- No LDC backup or storage service
- LDC may have excess capacity
- LDC services eliminated

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Bypass can often be prevented by cost-based rates

QUESTIONS?

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