

# *Fuel Purchasing Made Affordable* **National Clean Cities Conference and Expo**



**WC Otis 5/4/04**

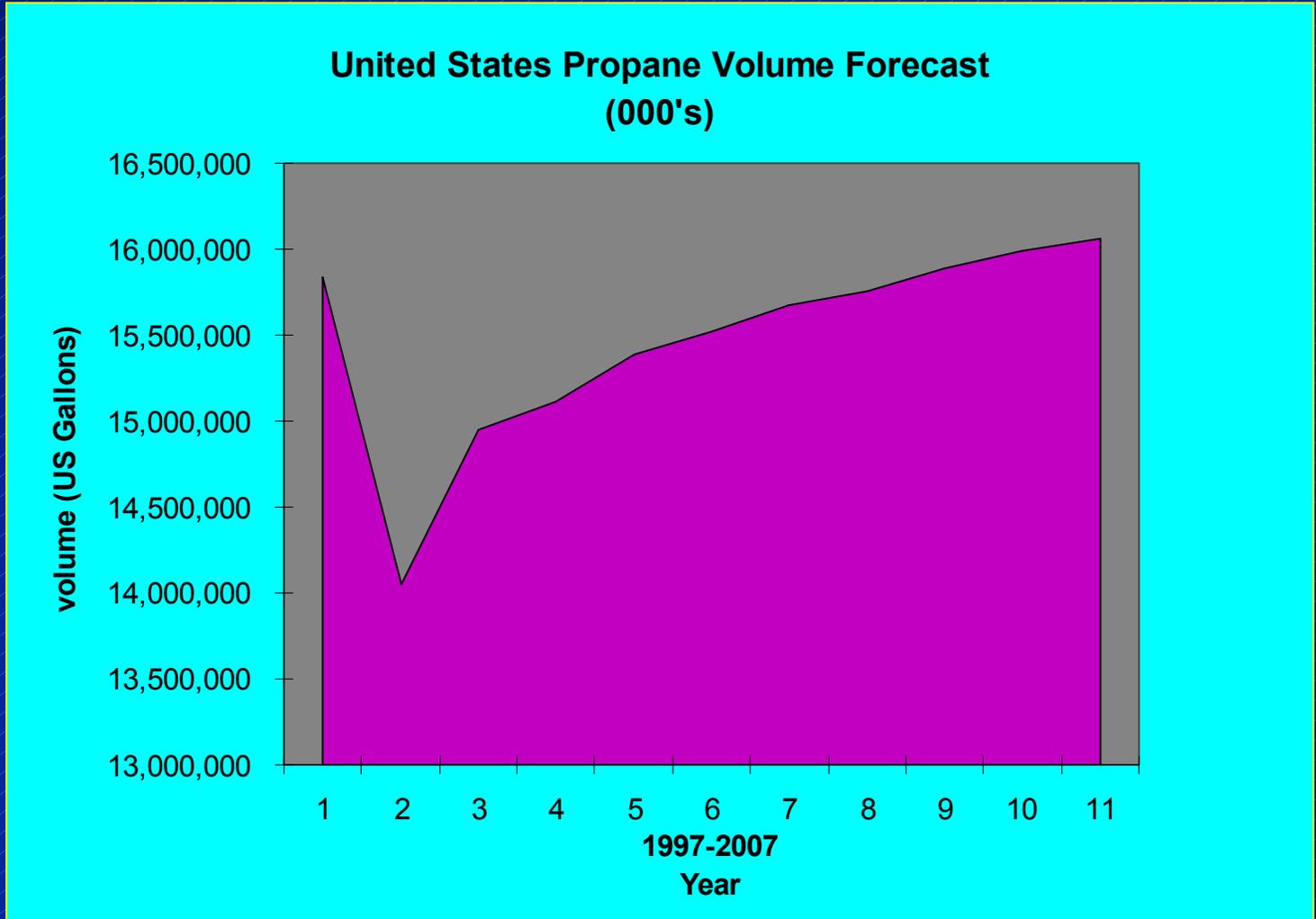
# Overview

- Introduction
- Industry Synopsis
  - LPG
- Product
  - Origin
  - Attributes
- Propane Infrastructure
- Pricing
- Purchasing Options

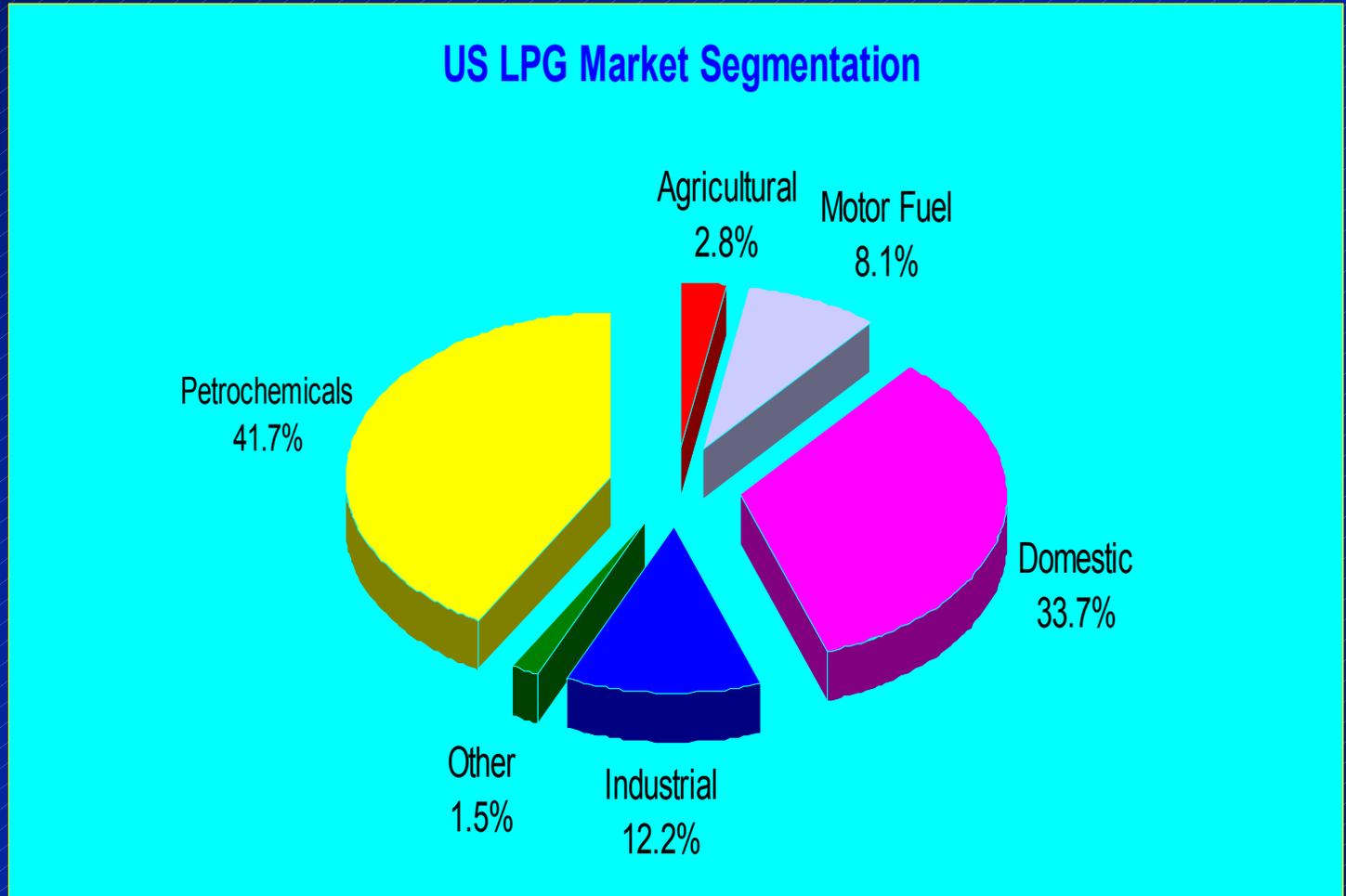


# Industry Synopsis

# US Propane Volume Forecast

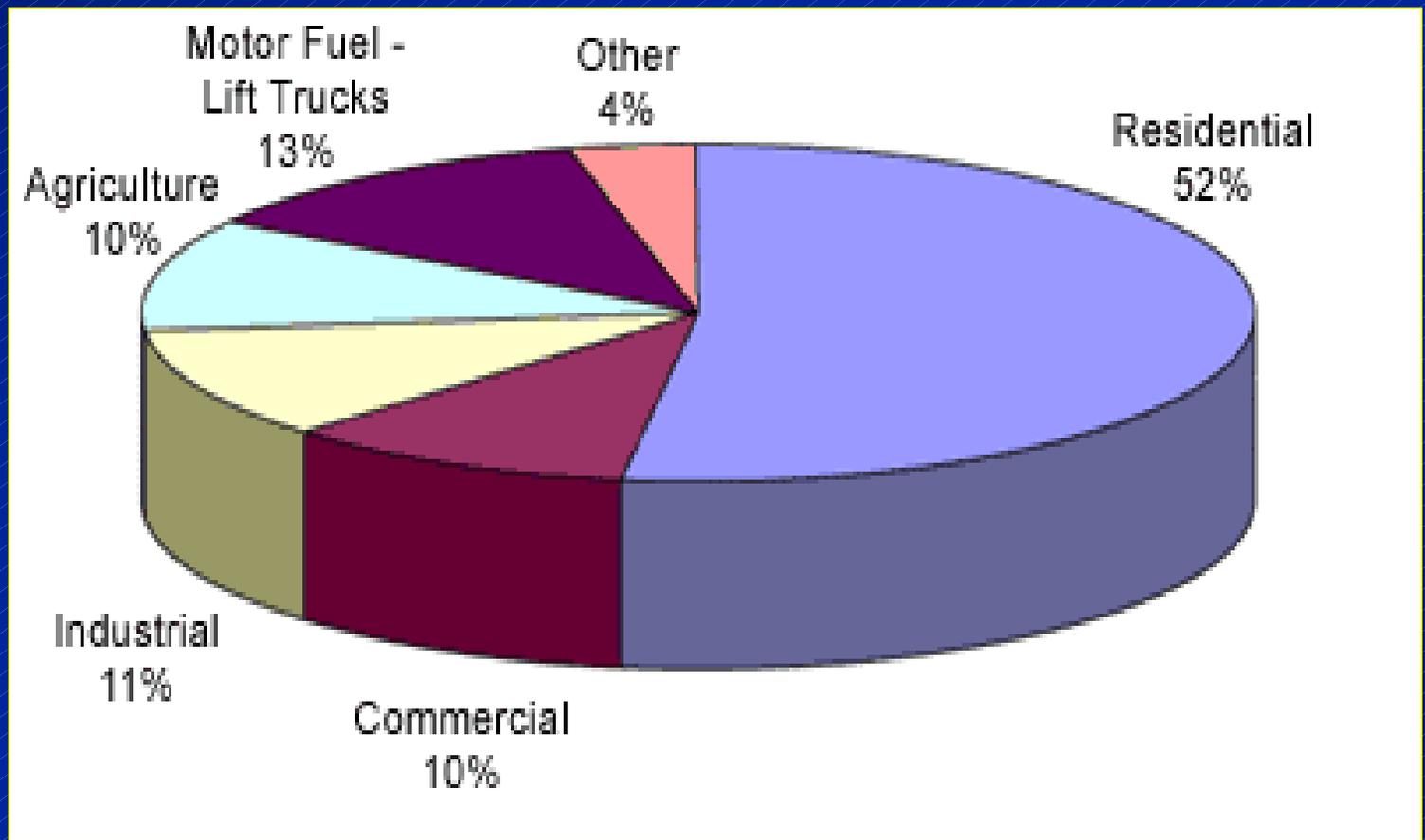


# LPG Markets



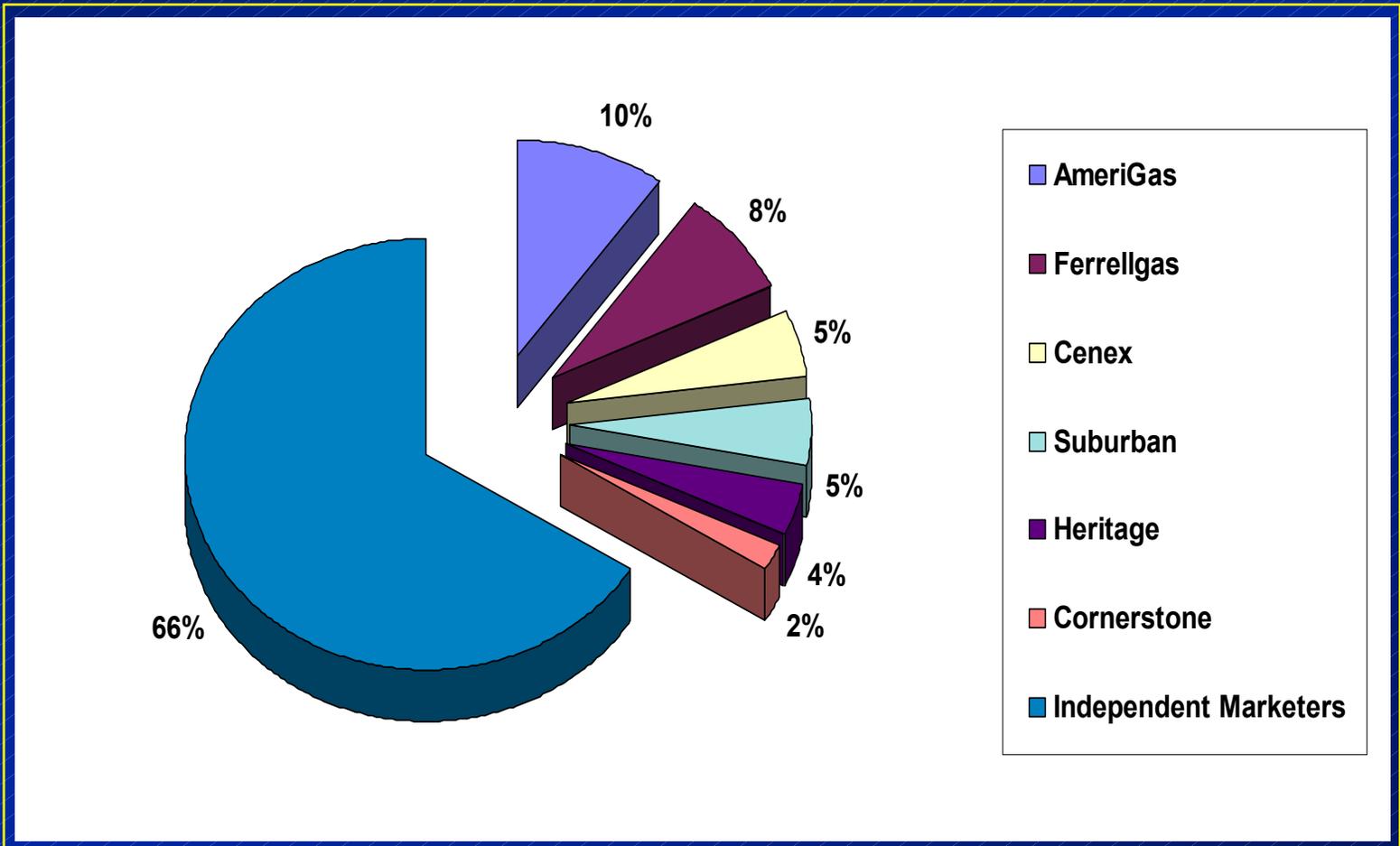
**\*The automotive sector shows the greatest potential for growth, this is largely dependent on government environmental issues**

# Primary LPG Markets



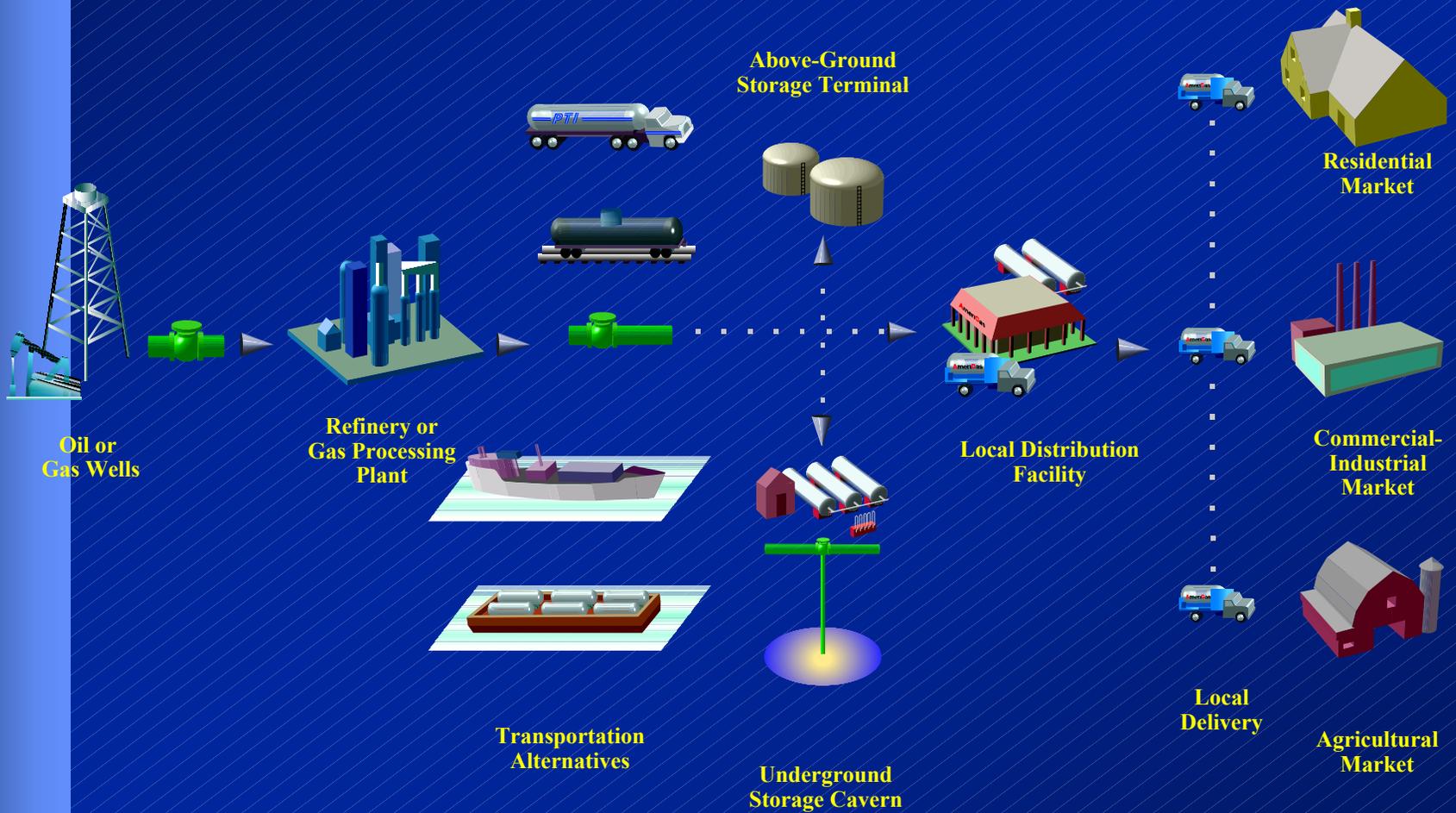
# Market Leader in Fragmented Industry

- Over 3,500 Retail Propane Distributors



# LPG - Product

# LPG – Source to Consumer



# Propane - World's Most Versatile Fuel

## Current Uses

- ◆ Central Heating
- ◆ Space Heating
- ◆ Water Heating
- ◆ Cooking & Baking
- ◆ Barbecue Cooking
- ◆ Crop Drying
- ◆ Pool Heating
- ◆ Forklift Fuel
- ◆ Commercial Drying
- ◆ Process Heating

## Future Uses

- ◆ Vehicle Fuel
- ◆ Fuel Cells
- ◆ Micro Turbines
- ◆ Air Conditioners

## Advantages

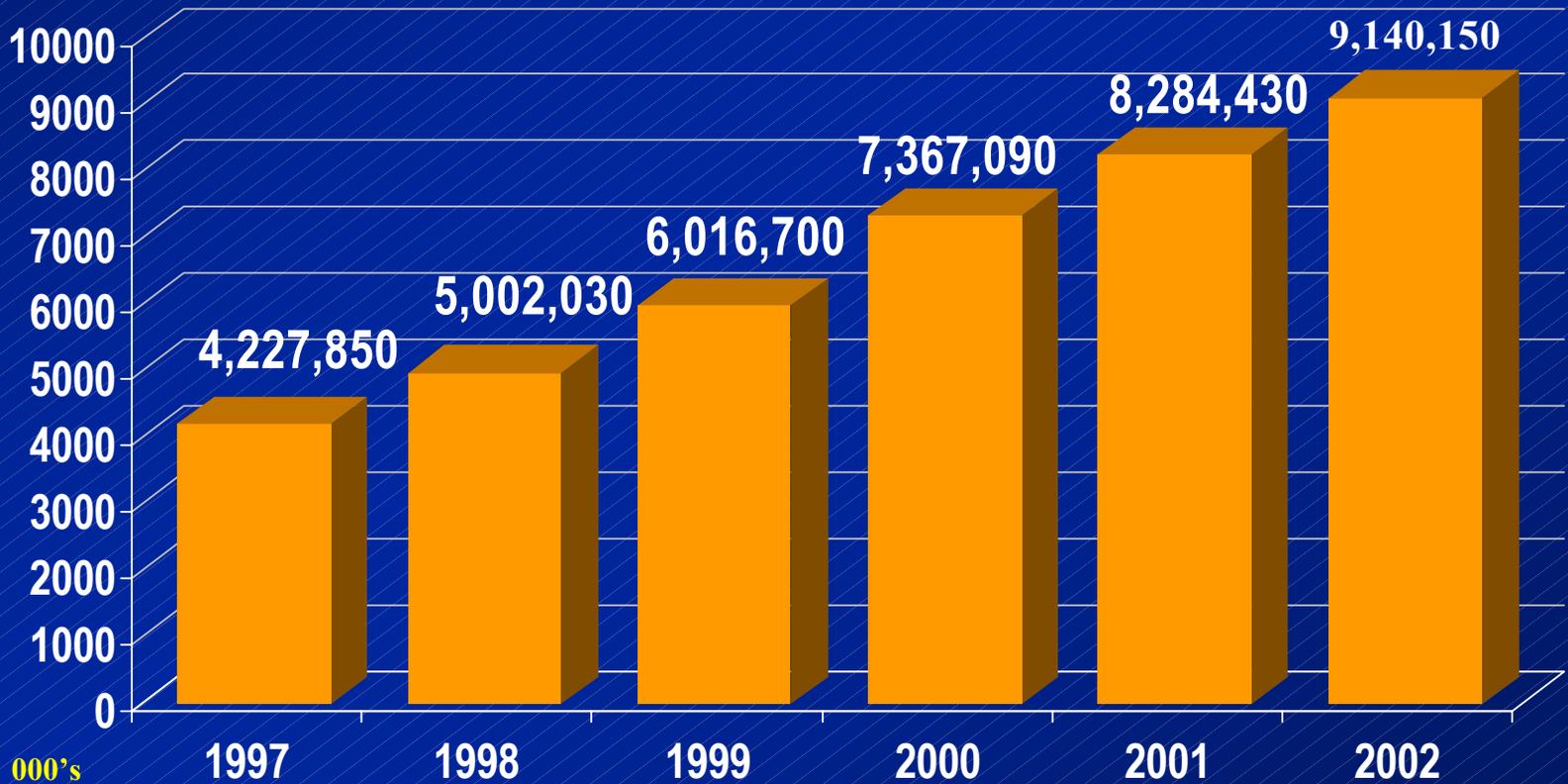
- ◆ Clean Burning
- ◆ Portable
- ◆ Environmentally Friendly
- ◆ Economically Attractive

# Propane Attributes - MF

- Range Comparable to Gasoline
  - 50% lower CO emissions
  - 40% less hydrocarbon emissions
  - 35% reduction in NOx
- Low Maintenance
- No Loss in Horsepower & Torque Capacity
- High Octane Fuel
  - Reduces knocking
- Quick Re-Fueling
- Easy & Economical Infrastructure

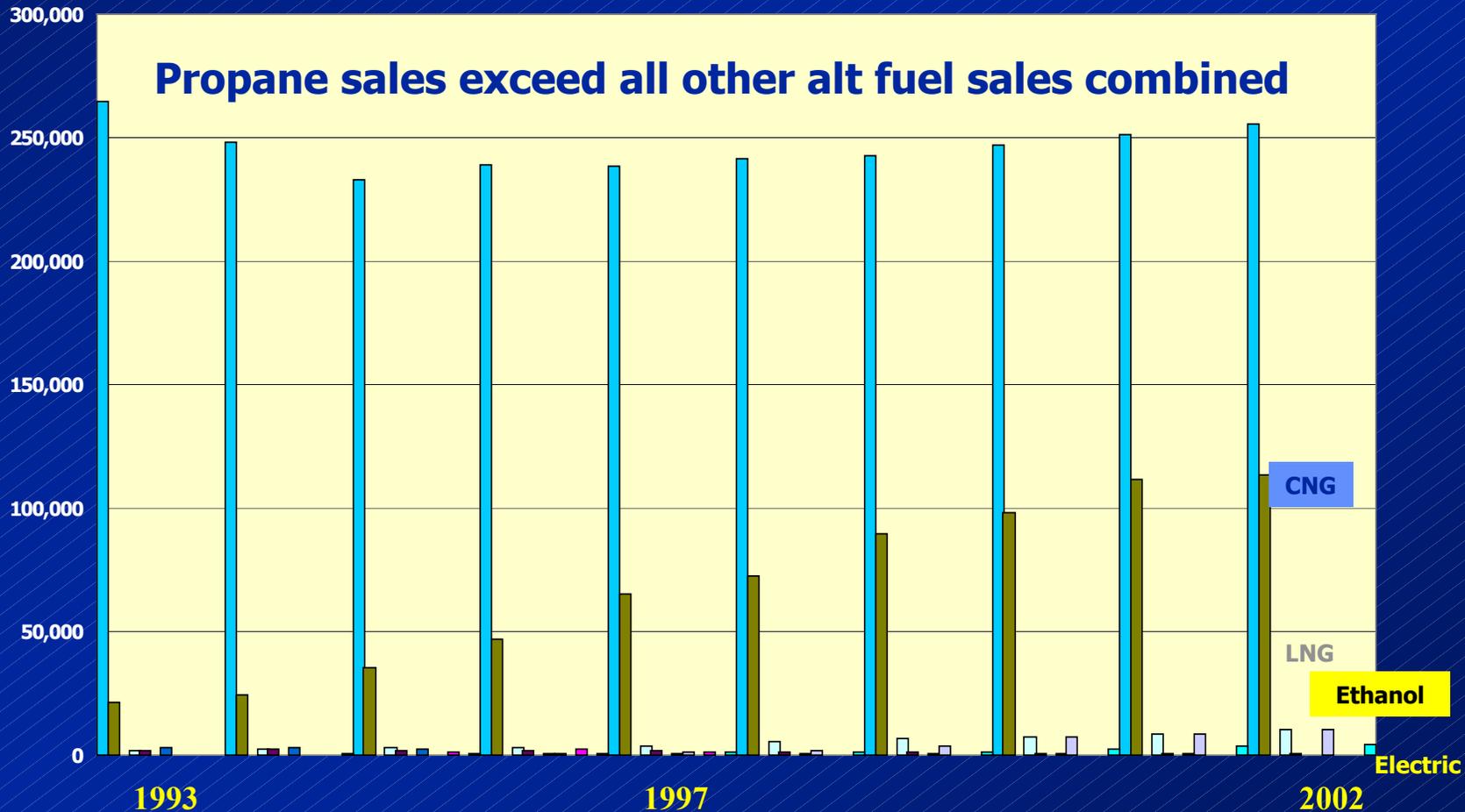
# Global Propane Vehicle Growth

Number of Vehicles Worldwide



000's

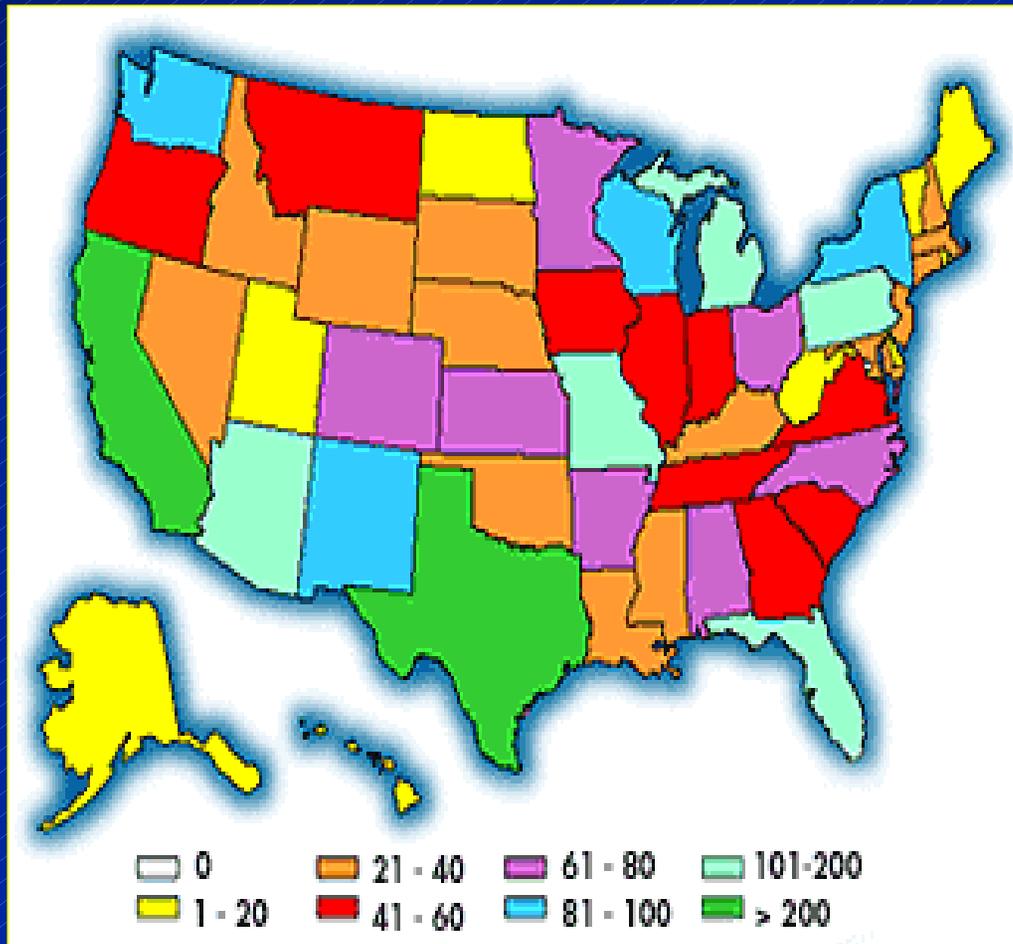
# Propane is the #1 Alternative Fuel



Source: Dept. of Energy  
(Thousand Gasoline-Equivalent Gallons)

# Infrastructure

# U.S. Refueling Sites



The propane refueling infrastructure consists of more than 10,000 sites available across the country, and the cost of a propane refueling facility is less than that for gasoline refueling facilities.

# Propane Infrastructure

- Economical and Cost Efficient
- Available
- Industry Partnerships
- Modern Fleet Management System
- Portable
- Dispensers at Customer Sites



# Propane Dispensing Equipment

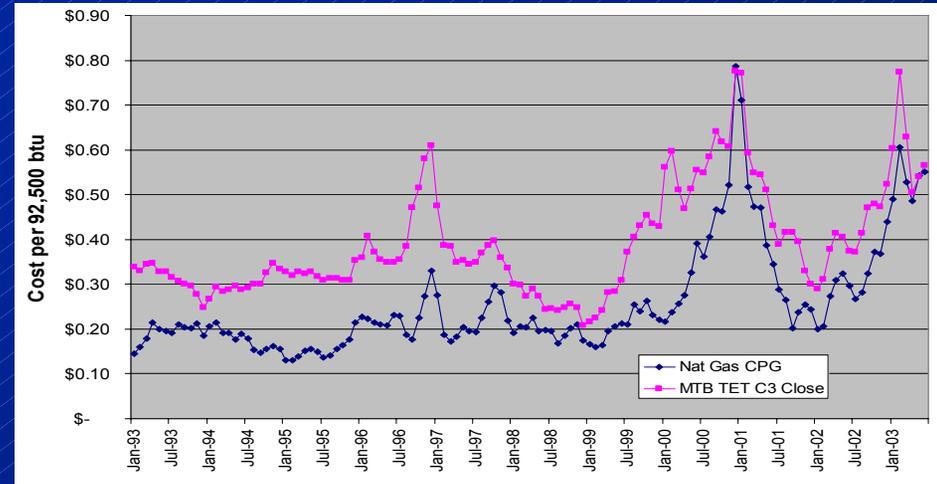
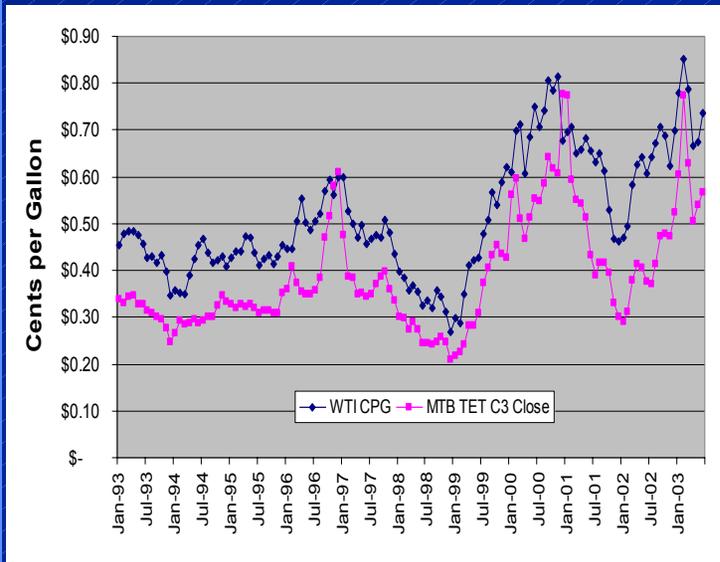
- System skids can be relocated
- Skid package reduces on-site construction costs and installation timing
- Small footprint:  
12' X 6'  
or a parking space



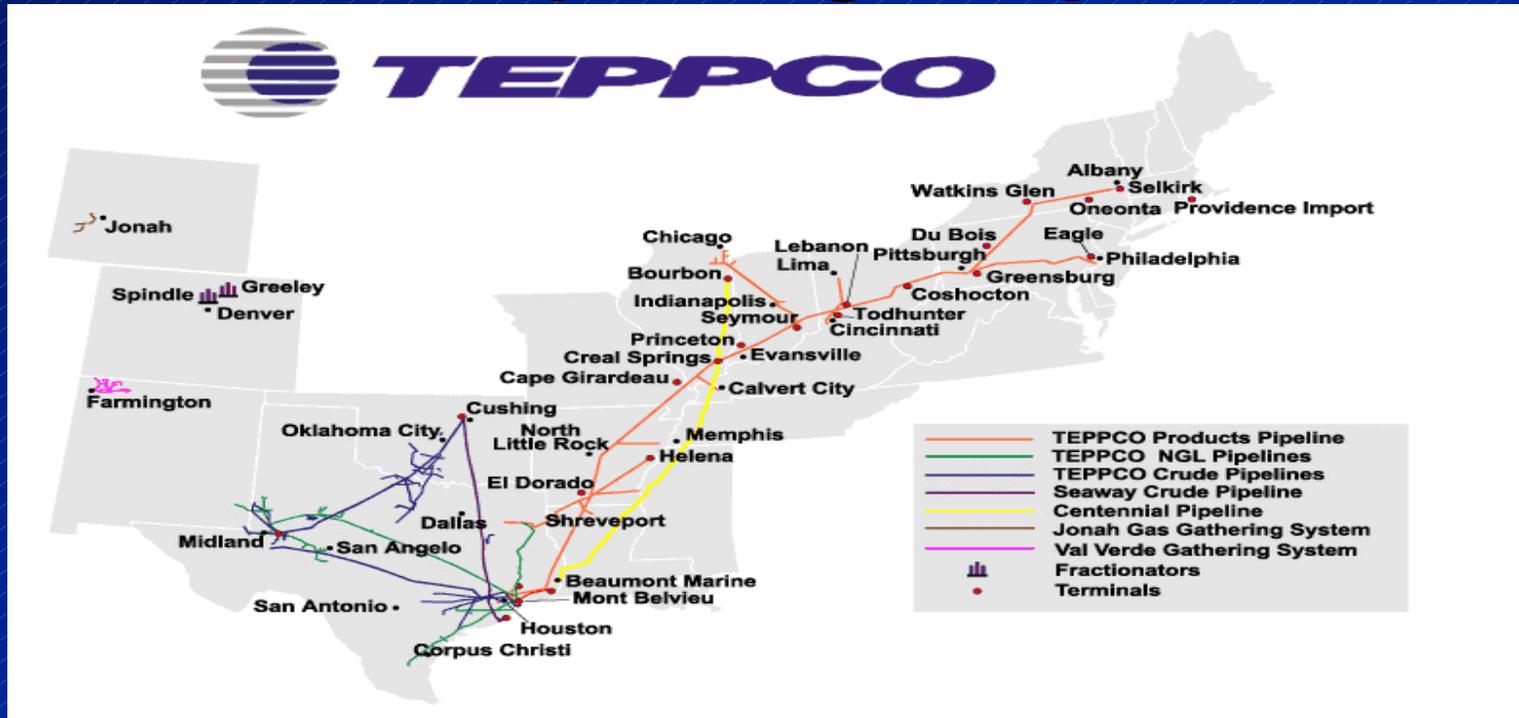
# Pricing

# Propane Valuation

- Propane retains a price relationship to both crude oil and natural gas under most scenarios
  - Alternative Values
  - Alternative Uses
  - Supply \ Demand Differences



# Transporting Propane



- The typical load sizes for the various methods of transportation are:
  - Bobtails - 1200 – 2000 gallons
  - Transport truck - 8500 – 11,000 gallons
  - Railcars - 30,000 gallons
  - Barges - 420,000 – 1,000,000 gallons
  - Vessels - 4,000,000 – 18,000,000 gallons

# How We Buy Supply

- **Posting** - *Supplier sets price based on market conditions*
- **Formula** - *Supplier agrees to sell on a fixed margin over Belvieu or Conway*
- **P\L Tariff**- *We buy in Belvieu or Conway and ship it ourselves*

# When and Where determines total cost

Propane  
at  
Belvieu \ Conway

**\$0.45**

## Associated Costs

- Storage
- Cost of Capital →
- Shrinkage

Propane  
at Local  
Supply Point

**\$0.55**

## Associated Costs

- Freight alternative
- Local Production →
- Allocation
- Seasonal Premium
- Pipeline tariff

Propane  
at District \  
Customer

**\$1.15**

## Associated Costs

- Freight \ Bobtail cost
- Payment terms
- Timing by month
- Labor \ storage expense

# Customer Options

- **Floating price** - *Price moves with the market - Flexibility in margin*
- **Index Price**
  - *Fixed margin over local posting*
  - *Fixed margin over Belvieu or Conway*
- **Fixed Price**
  - *Customer pays up front*
  - *Customer pays a portion down*
  - *Customer pays a service fee*

# Methods to Fix Prices

- Physical Inventory \ Pipeline Terminals – Buy gas and hold in inventory until needed
  - Cost of capital - *Ties up funds that could be used in other areas*
  - Cost of storage - *Real out-of-pocket expense during summer*
  - Liquidity limits - *Once you buy the gas, you have to move it*
  - Best flexibility on lifting
  - Problems on building allocation - *Does not build allocation during summer season*
- Pre-buy – Put down small amount to hold price. Gas is usually stored in proprietary storage such as Koch-Schaefferstown or Conoco-Mt. Vernon
- Forward Purchases \ Pipeline Terminals – Fix price in forward month

# Methods to Fix Prices (con't)

- ◆ **Financial Swaps** – Financial arrangement that uses existing contracts to limit price variation
  - ◆ Uses existing supply contracts to limit basis risk
  - ◆ No money down
  - ◆ Specific volume and fixed price by month
  - ◆ No flexibility on volumes moved from month to month
  - ◆ Subject to logistics problems that increase freight or disruptions in deliveries that increase basis above plan
  
- ◆ **Financial Options – Calls**
  - ◆ Uses existing supply contracts to limit basis risk
  - ◆ Premium Paid up front – usually 3-5 cpg
  - ◆ Limits downside market risk
  - ◆ No flexibility on volumes moved from month to month
  - ◆ Subject to logistics problems that increase freight or disruptions in deliveries that increase basis above plan

# Tools for Risk Management I: Fixed Price Swaps

## 1. Objective

- ◆ Fuel cost is known and fixed for a given volume for a set period of time
- ◆ Propane Distributor is able to fix their production costs for energy



## 2. Swap Mechanics

- ◆ Swaps are used to offset a floating price for a specific monthly volume of physical supply (i.e. monthly index) to a fixed price
- ◆ Swaps are settled financially -no impact on physical supply price
- ◆ Swaps do not change your physical supply relationship in anyway

# Risk Management II:

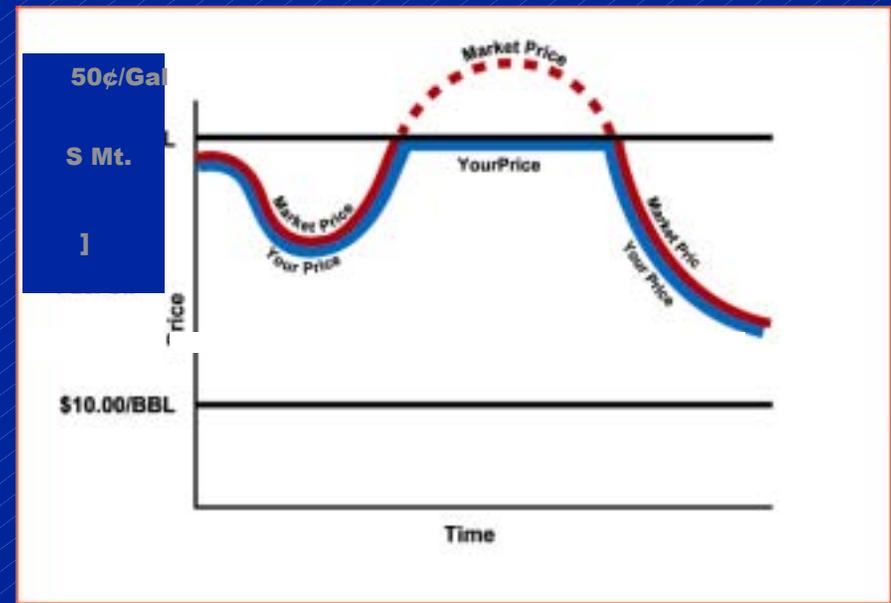
## Call Options: Fix a Maximum Price While Benefiting From Price Decreases

### 1. Objective:

- ◆ A maximum price is established
- ◆ Customer participates in all the downward movement below the established ceiling (maximum price)

### 2. Cap Mechanics:

- ◆ For example, 50¢/Gal for Propane - this is the maximum you will pay and you benefit from all downside price movement
- ◆ The protection has a cost, for Nov - Mar the cost would be \$0.03 - \$0.05/Gal for this insurance



# What Suppliers Require

- *To properly align the fundamentals of the purchase and the sale*
  - 1. Volumes per month**
  - 2. Delivery Rates**
  - 3. Supply Allocation**
  - 4. Price Basis**
  - 5. Transportation Method and Availability**

# How do suppliers conclude:

- Customer Segmentation
  - Predictable Volume within limits
  - Price Sensitivity
  - Margin Requirements
- Desired End Result
  - Ensure reliable supply at a reasonable cost
  - Margin Protection
  - Grow Volumes through new products
  - Reduce cost volatility

# PROPANE

*EXCEPTIONAL ENERGY®*