

# Ethanol - Broken Promises

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Prepared for:

**DeWitt Global**

**Methanol & Fuels Conference**

By

**Cal Hodge, President**

***A 2nd Opinion, Inc.***

**Houston, TX**

**October 30, 2003**

# Agenda

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 **I will love you in the morning.**

 **The check is in the mail.**

 **I am from the government  
and I am here to help.**

 **Would the government lie  
to you?**

 **Environmental decisions are  
based upon sound science.**



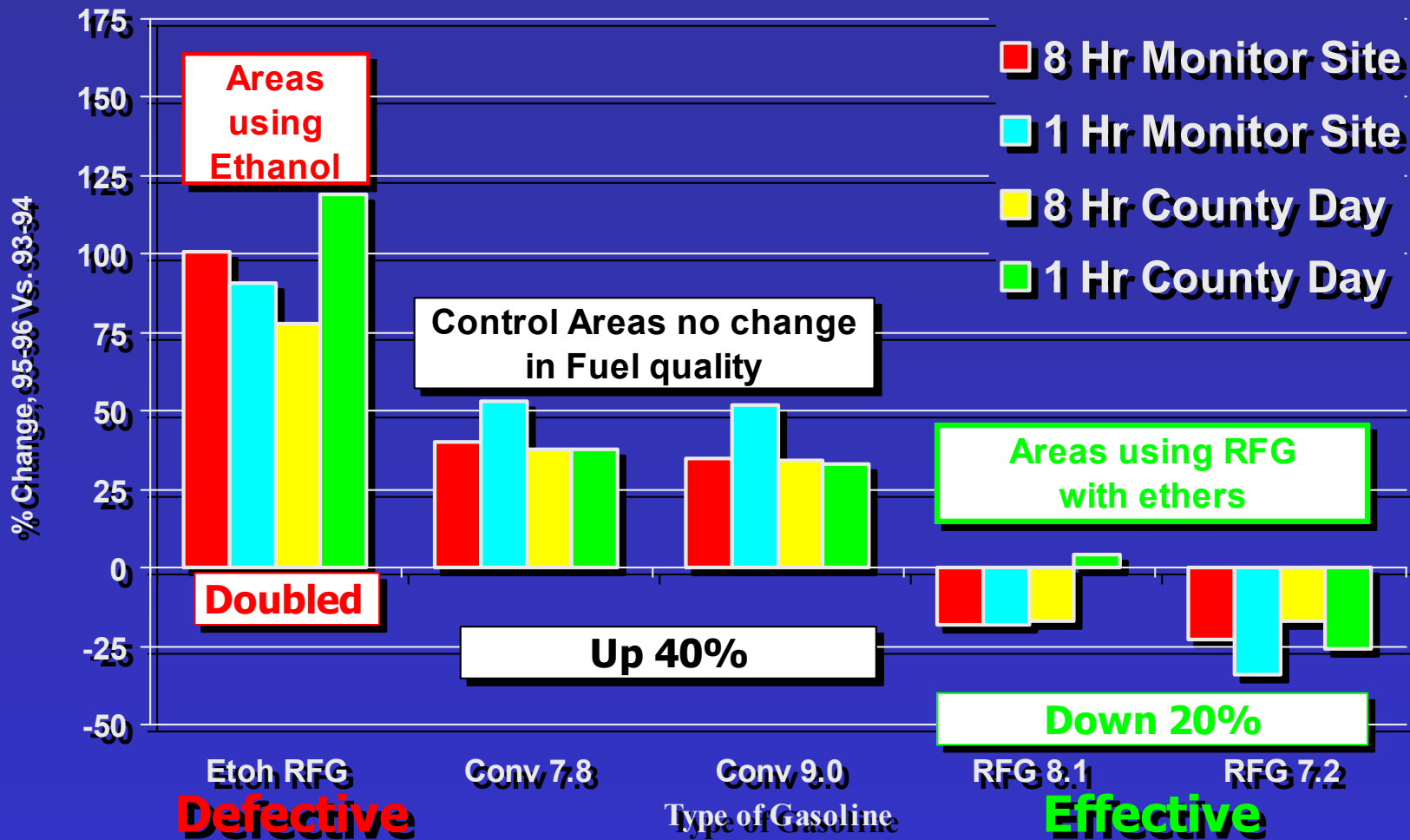
# **I will love you in the morning**

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## **Ethanol Increases Ozone**

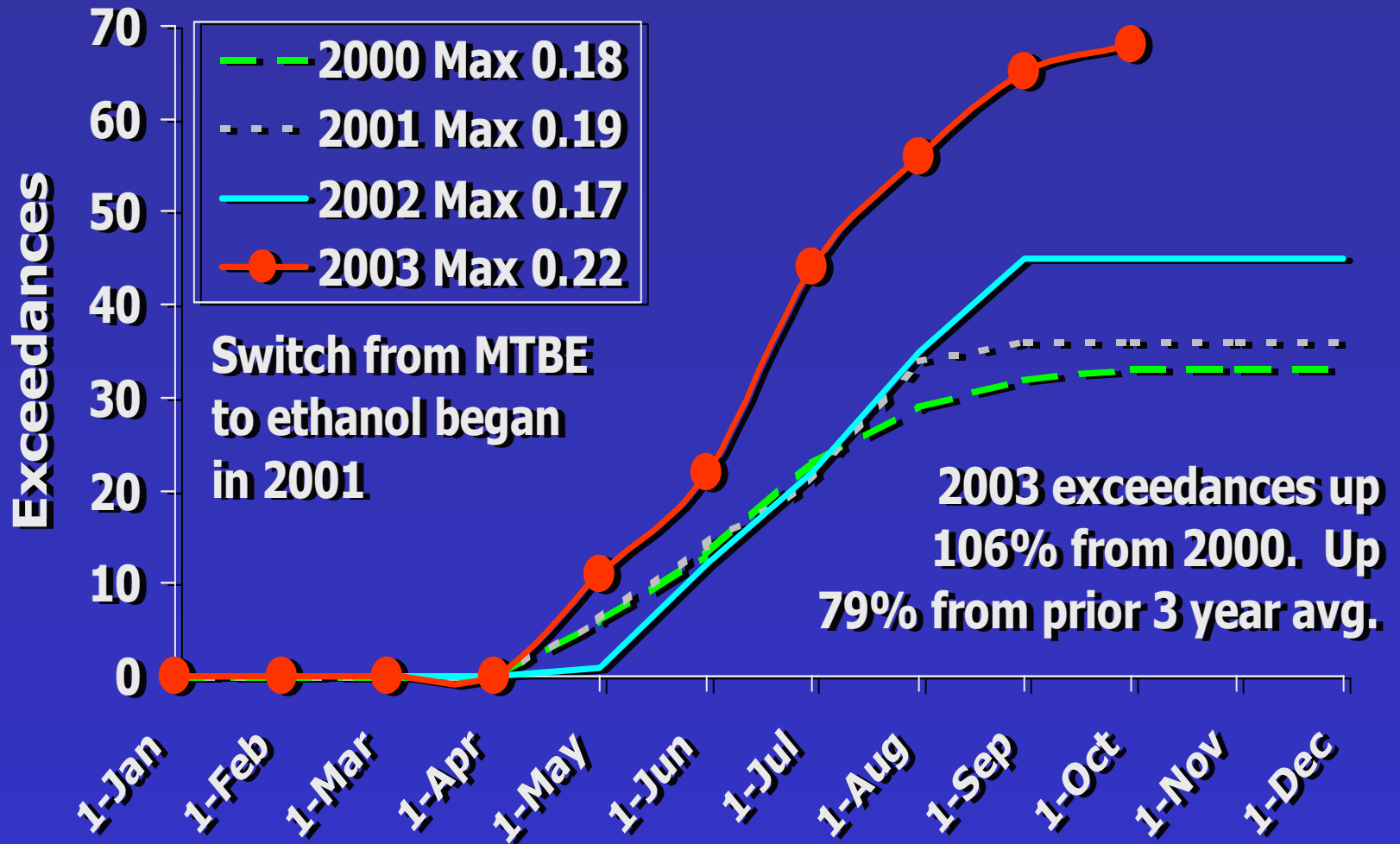
- **1995: Ethanol-based RFG *doubled* exceedances while**
- **MTBE-based RFG *decreased* exceedances 20%.**
- **Exceedances *Doubling* as California switches from MTBE to ethanol**

# 1993 - 1996 Ozone Data Shows Ethanol Defective & MTBE Effective

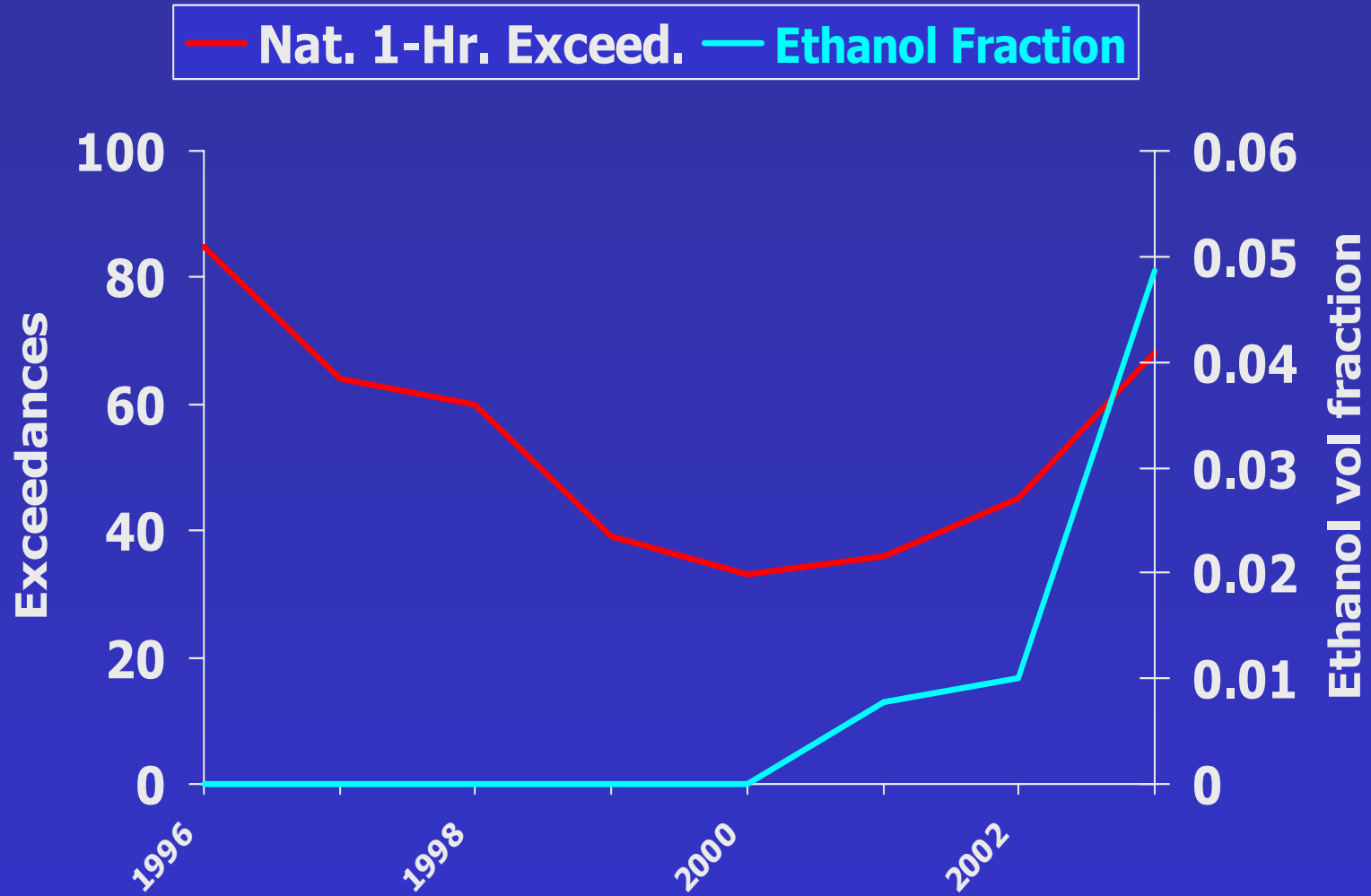


# 2003 South Coast Air Basin Exceedances

## Confirm Ethanol Defective, MTBE Effective



# South Coast Air Basin Exceedances of Federal 1-Hour Ozone Standard

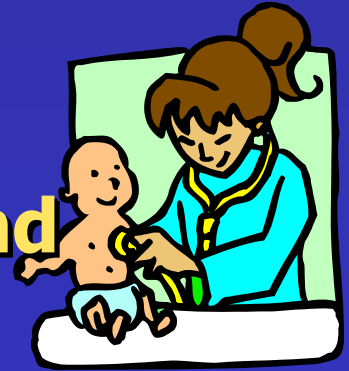


# Don't Blame the Weatherman

- Some blame the ozone increase on the weather.
- It did get warmer in California. ***BUT***
- Regression analysis indicates ozone was a function of:
  - Time (i.e. cars getting cleaner) and
  - MTBE or ethanol concentration but
  - ***Not temperature***

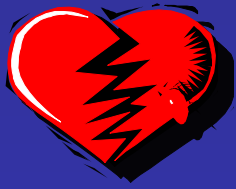
# Yale Finds Asthmatic Children Vulnerable to Ozone

- As California switched to ethanol, ozone concentrations increased 40 to 60 ppb.
- Yale study shows that 50 ppb increases:
  - *Wheezing* by 35%
  - *Chest tightness* by 47%
  - *Shortness of breath* by 32% and
  - *Rescue medication use* by 8%.



***Why should our children suffer to subsidize the ethanol industry?***





## The check is in the mail

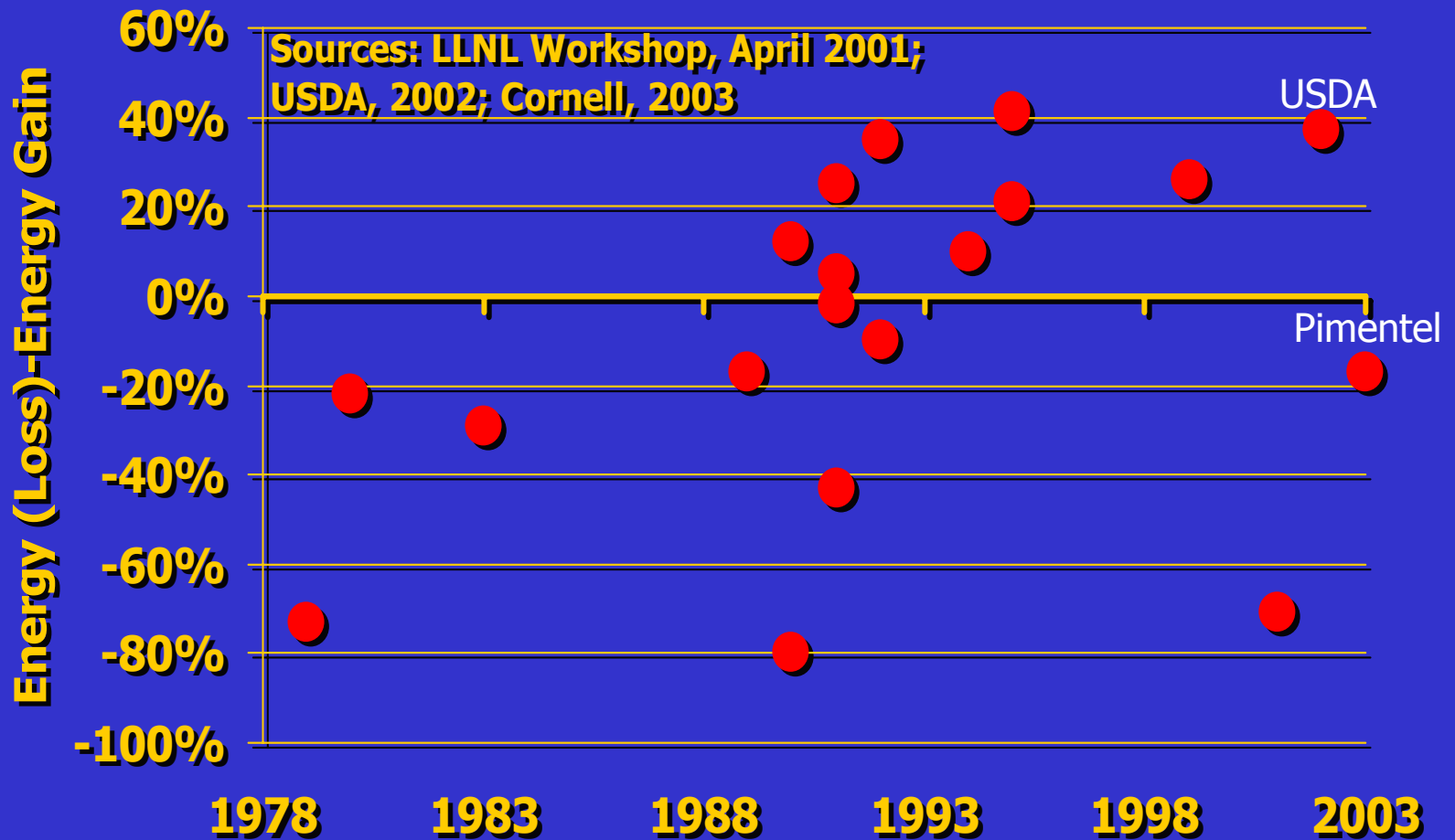
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- Pay-offs for using more ethanol are *supposed* to be:
  - Better air quality
  - More energy independence
  - Better corn prices for farmers

**The air quality check**  
**BOUNCED**

**What about Energy & Corn Prices?**

# Average of 19 Studies Show Ethanol Loses 8% of the Energy Used to Make It



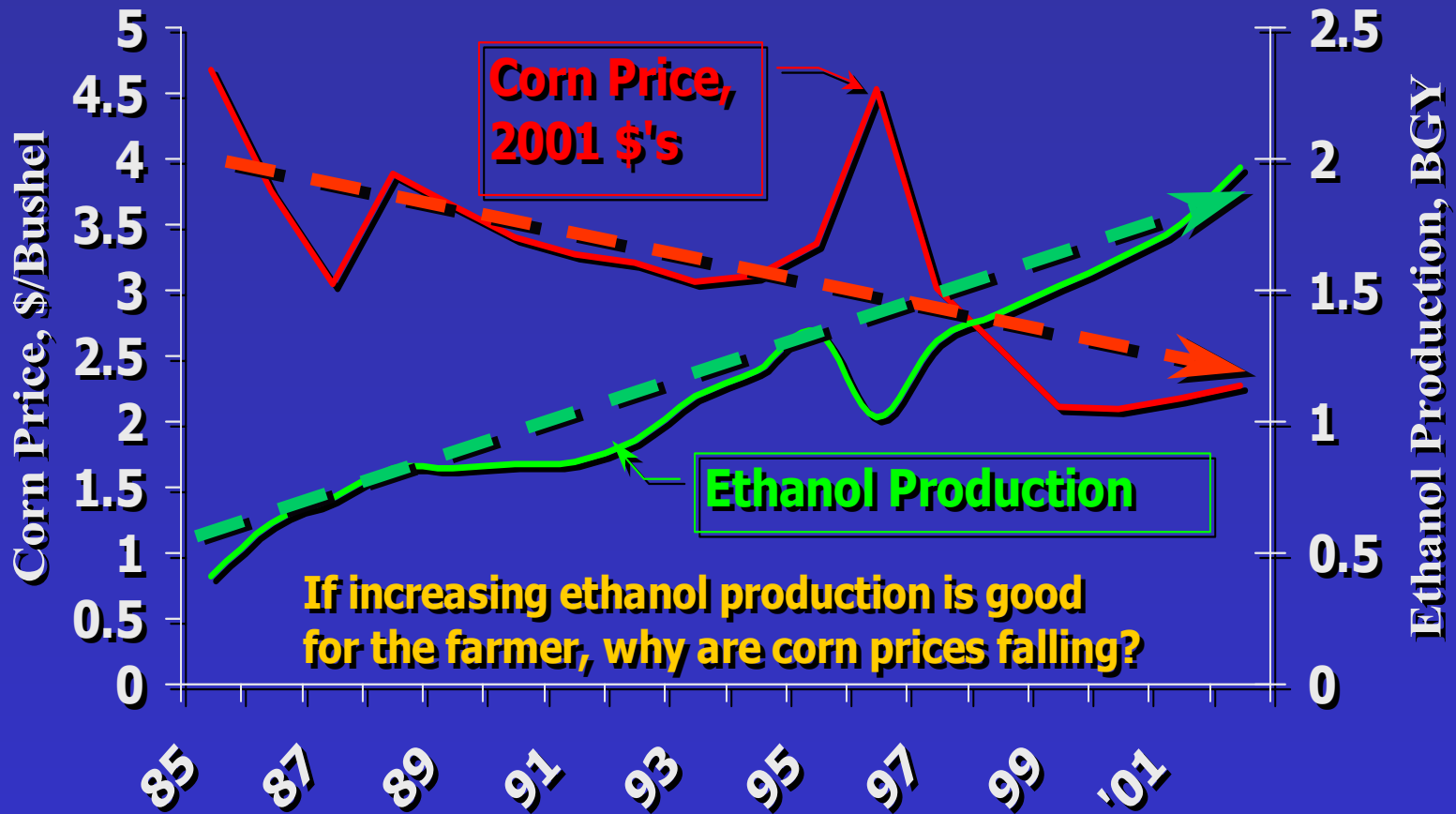
# **Why Energy Conclusions Vary**

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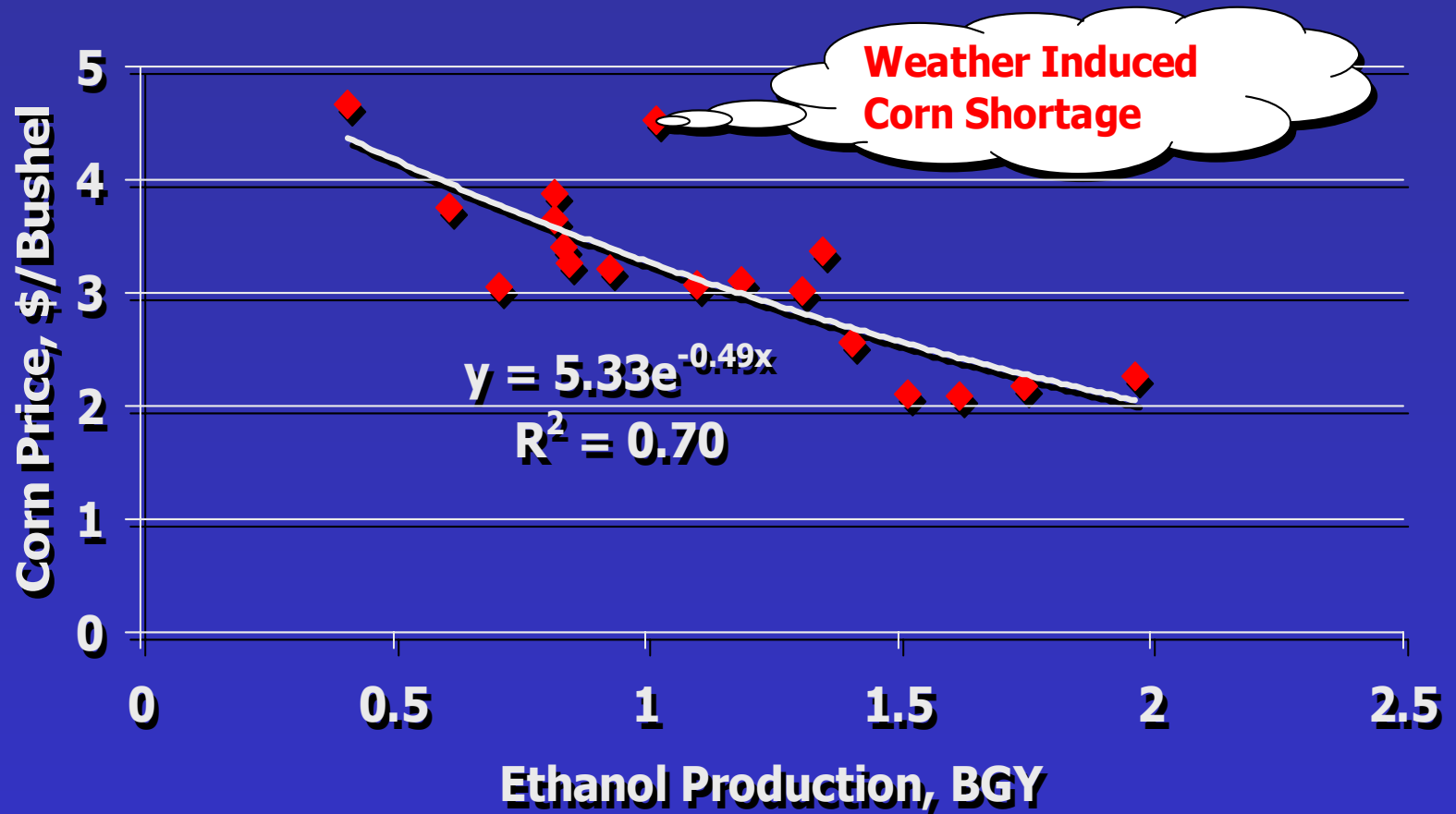
- **Overall energy balance is created from small assumptions.**
- **Researcher bias sneaks in.**  
**For example, in recent studies:**
  - **USDA seemed to always favor ethanol.**
  - **Dr. Pimentel had pluses and minuses.**
  - **Adjusted USDA went from +37 to -5%.**
  - **Dr. Pimentel went from -17 to -20%.**
- **But average (8% loss) is probably right.**

**Energy check has postage due!**

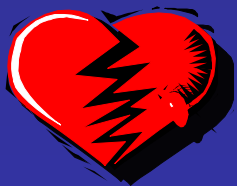
# Corn Price Vs Ethanol Production



# Corn Should Sell for 50¢ per Bushel When We Produce 5 BGY of Ethanol



To *whom* was that check payable?



# **I am from the government and I am here to help**

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- **Subsidy & innovation**
- **Economic obsolescence**

# **Subsidies Stifle Innovation**

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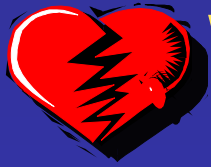
- **Welfare program designed to maintain dependence.**
  - Can't save for a car to get a job.
  - Can't afford to go to school.
  - Lose medical if you begin work.
- **Ethanol subsidy like welfare.**
  - Paid to be inefficient.
  - Don't have to do better to survive.
  - Building economically obsolete plants.

# Ethanol Technology Obsolete

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- **Need for subsidy proves economic obsolescence.**
- **Ethanol-from-cellulose technology might be economic but it has been “a year away” for years.**





# Would the Government Lie to You?

## MTBE

- **Possible** carcinogen
- **No** birth defects
- **4%** soluble
- **Decreases** ozone
- **Gas** to liquids
- **NA**

*Effective*

## Ethanol

- **Known** carcinogen
- **Known** birth defects
- **100%** soluble
- **Increases** ozone
- **Net energy** loser
- **Lower** corn prices

*Defective*

**Tell me again, which is defective?**

# Sound Science Vs. Political Science

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**Data shows that MTBE is effective  
and ethanol is defective.**

**So:**

- ***WHY* have some states banned MTBE  
and**
- ***WHY* is Congress considering a ban?**

**Let's address those questions together..**

# Slippery Slope

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- USEPA approved MTBE in 1979 based upon sound science.
- Since then we have gone downhill from “*sound science*” to “*sound-bite science*” to “*political science*”.
- Early MTBE sponsors were scientists:
  - They knew that MTBE had good science and economics.
  - They thought sound science was enough.

# Scientists Over-Confident

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- **MTBE industry knew:**
  - **MTBE was better than ethanol.**
  - **Sound science created MTBE.**
  - **Spending money for PR would be a waste.**
  
- **Ethanol industry knew:**
  - **MTBE was better than ethanol.**
  - **Political science created them.**
  - **Only good PR could save them.**

# **Santa Monica Started the Slide**

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- **Since 1992, I suspected anti-MTBE rhetoric had a sponsor.**
- **After Santa Monica, I saw farmers test launch the MTBE/ water issue at RFG hearings.**
  - They knew local politicians.
  - They were not held to scientific correctness standards.
- **After seeing effectiveness of the water issue, RFA staff became bolder.**

# **Reorganizations Accelerated It**

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- **OFA changed leadership.**
- **After Blue Ribbon Panel, EPA dropped MTBE support.**
- **OFA adopted national rather than state-by-state strategy while RFA clicked off state bans.**

***How is a legislator whose state banned MTBE going to vote on an MTBE issue?***

# Why IS RFA Effective?

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## RFA

- **One goal:**
  - **Sell more ethanol**
- **Political science**
- **Domestic**
- **Continuity**
- **Senior managers**
- **Farmer image**
- **Etoh good-MTBE bad**

## OFA

- **Multiple goals:**
  - **Sell MTBE**
  - **Sell methanol**
  - **Sell gasoline**
- **Sound science**
- **International**
- **Multiple leadership**
- **Mid managers**
- **Oil image**
- **MTBE good**

# Sending Mixed Signals

- API, NPRA & OFA are perceived as **"evil big oil" industry**



- API – Ban MTBE & mandate Ethanol
- NPRA – No bans, no mandates
- OFA – No MTBE ban

**Congress paralyzed by mixed message**

- RFA is perceived as **"farmers"**  
(the backbone of America)



- **Consistent (though false) message**

**Congress knows what RFA wants**



# International Survival Plan

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- **Goal** - Grow international MTBE market. US experience proves MTBE cannot win by just playing defense.
- **Message** - MTBE works; ethanol does not. MTBE good - ethanol bad.
- **Budget to win** - PR to create the political science to sell the sound science.
- **Staff to win.**

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To contact *A<sub>2</sub>O* call or write:

Cal Hodge, President

***A 2<sup>nd</sup> Opinion, Inc.***

4606 FM 1960 West Suite 400

Houston, Texas 77069-4615

Phone: 281.586.2213

Fax: 281.586.2214

Email: [A2ndOpinionInc@aol.com](mailto:A2ndOpinionInc@aol.com)