

# Power and Policy

The Rise of Submetering  
Across Today's Markets

Presented by  
**SpeedRead**  
Technologies

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# Today's utility environment...

Marked by:

- **Advanced Technologies**
- **Conservation Priorities**
- **Search for Efficiencies**

# Advanced Technologies

- Wireless — fixed network — data transmission
- Multiport configuration
  - The ability to connect several utility meters to a single transmitter
- Multi-utility configuration
  - A single transmitter monitoring gas, water and electric consumption.
- Online consumption tracking and bill presentation.

# Conservation Priorities

- US Govt. has made conservation the centerpiece of new Energy Policy Act signed by President Bush on Aug. 8, 2005
- Sections 101, 102 & 103 deal with energy and water savings, management and accountability in all space occupied by Federal Government.
- Metering of all energy usage required by 2012.
- New law provides massive opportunities for energy efficiency industry.

## President Signs Energy Policy Act

Sandia National Laboratory  
Albuquerque, New Mexico

@Fact Sheet  
@its Focus: Energy

1:26 A.M. MDT



**THE PRESIDENT:** Thank you all. Please be seated. Thanks very much for the warm welcome. I appreciate you treating a neighbor from Texas so kindly. [laughter] I'm really proud to be here with the men and women of the Sandia National Laboratory. We just had a fascinating tour of the facility. It was a little quick, but I learned a lot, and I want to thank Tom Hunter for his hospitality and his enthusiasm for the projects that go on here, and his praise for the people who work here.

I thank you for coming, and it's such an honor to be here. I know full well that the work you do here keeps our military strong, it keeps our nation cooperative, and our country is really grateful for your dedication and for the fact that you lend your expertise into helping Americans.



It's such an honor to be in New Mexico, the home state of... as well as Jeff Bingaman, to sign this bill. This energy and it will protect our security, more secure, and it will protect our security.

## Surging energy prices concern Bush

Wednesday, March 16, 2005 Posted: 1:22 PM EST (1822 GMT)

**WASHINGTON (CNN) --** President Bush on Wednesday again pressed Congress to come up with a comprehensive energy plan, saying he's worried about energy prices.

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## Bush: Ready to tap reserve

President expresses administration's willingness to tap oil reserves, stresses energy conservation.

**NEW YORK (CNN/Money) --** President Bush said Monday his administration is willing to tap the nation's strategic oil reserve to deal with supply shortfalls caused by hurricanes Katrina and Rita and urged Americans to practice energy conservation.

"It's important for our people to know that we understand the situation and that we're willing to tap the Strategic Petroleum Reserve to mitigate any supply shortfalls that could affect our energy security."



President George W. Bush

# ENERGY SECURITY for the 21st CENTURY



abc NEWS

POLITICS

## Bush admin launches energy conservation campaign

(Page 2 of 2)

## President Bush Signs Into Law a National Energy Plan

Today, President Bush Signed Into Law The First National Energy Plan. President's national energy plan will encourage energy efficiency and conservation, promote renewable energy sources, reduce our dependence on foreign sources of oil, modernize the electricity grid, and encourage the expansion of energy production.

Background: The Energy Bill Promotes Investments In Energy Conservation and Efficiency

# The Search for Efficiencies

- Submetering has proven itself as the most cost-effective method of achieving energy efficiency.
- Study after study has documented the impact of submetering on reducing waste.

*Examples:*

**“Energy Down The Drain”** by the National Resources Defense Council, August, 2004.

**The National Multiple Family Submetering and Allocation Billing Program Study**, a 3-year analysis conducted by the U.S. Environmental Protection Agency (EPA), Sept., 2004.

Case studies illustrate the impact of conservation in the following industry segments:

## Multifamily Housing:

- Garden Apts.
- High Rise Apts.
- Manufactured Housing
- Military bases

Retail centers

Airports & public facilities

Other:

- Boat Marinas

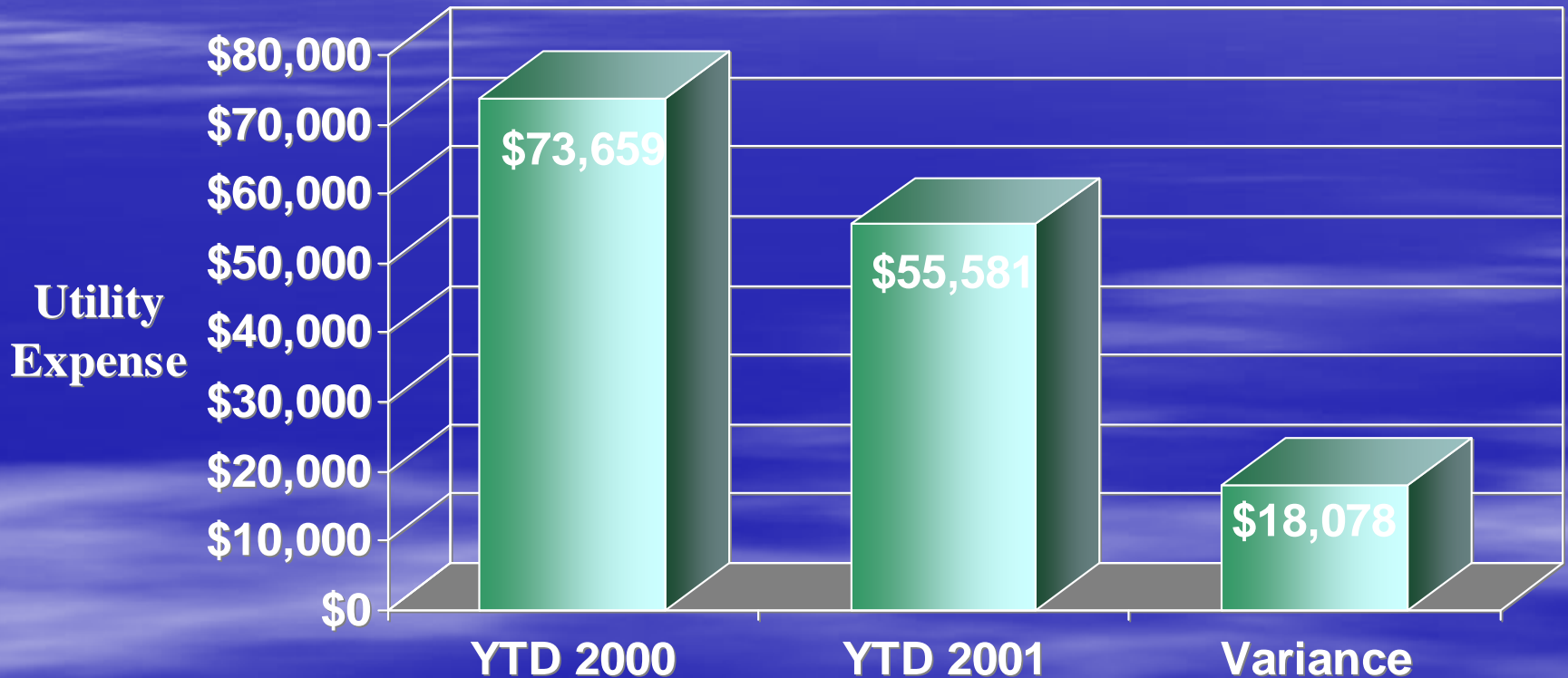
- Multifamily housing
  - Garden Apartments

## Case Study No.1: Cool Creek Apartments

In 2001, this 314-unit suburban Indianapolis community installed a SpeedRead submetering system.



# Water & Sewer Utility Cool Creek Apartments



## Case Study No. 2

### McCausland Properties in Ft. Wayne, Indiana



- Currently operating 4 submetered apt. communities.
- All 4 properties located within a 3 mile radius.
- All 4 properties — over 750 meters — are being monitored by a single concentrator!
- Let's look at 2 of the McCausland Properties...

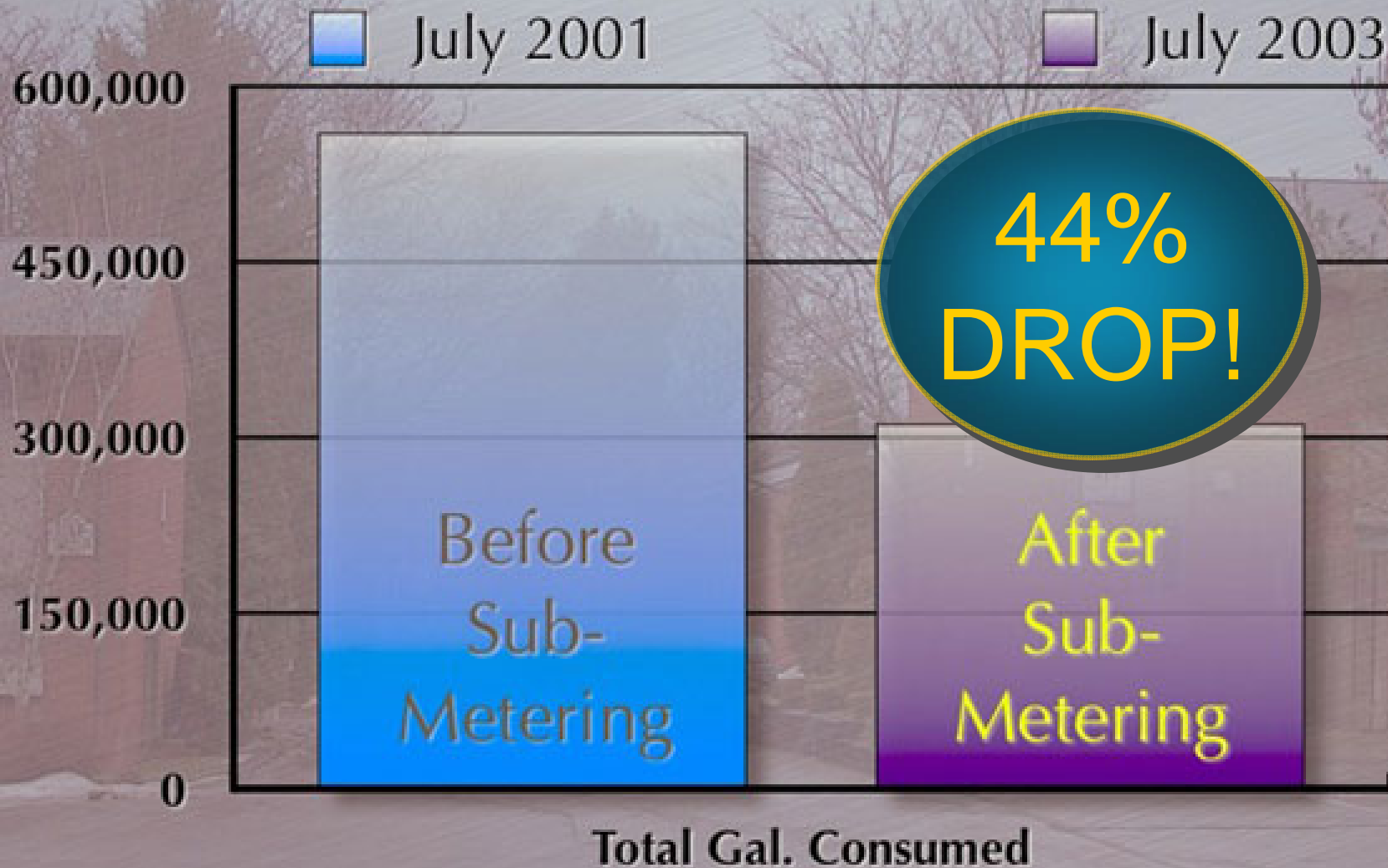
# Fairview Apartments

- 112 Flats & Townhouses built in 1970s
- Water submetering installed in 2002
- Cost of installation recovered in under one year.
- Water consumption dramatically reduced (*see next slide*).
- Owner able to detect water consumption in vacant units. Running toilets are now rapidly repaired.

The

# ***SPEEDREAD***

Effect



# Candlelight Apartments

- 130 units. Flats & Townhouses. Built in 1970s.
- Both Gas and Water submetering installed in Dec. 2003.
- Gas and Water meters being read by a single SpeedRead transmitter.
- Cost of installation recovered in under 1 year.
- Substantial drop in consumption (*see next slide*).
- Gas submetering revenue covers 80% of property's master gas bill.
- Owner able to detect gas consumption in vacant units. For example, when maintenance crew forgets to turn thermostat back down to 55°.

The

# **SPEEDREAD**

Effect



# ■ Multifamily housing: High-rise Apartments



# ■ Multifamily housing: High-rise Apartments



# ■ Multifamily housing: Apartments

## Submetering Means Less Overhead per Sq. Foot.



Source: National Apartment Association 2005 Survey of Operating Income & Expenses in Rental Apartment Communities. 3807 US Properties containing 873,532 units were surveyed.

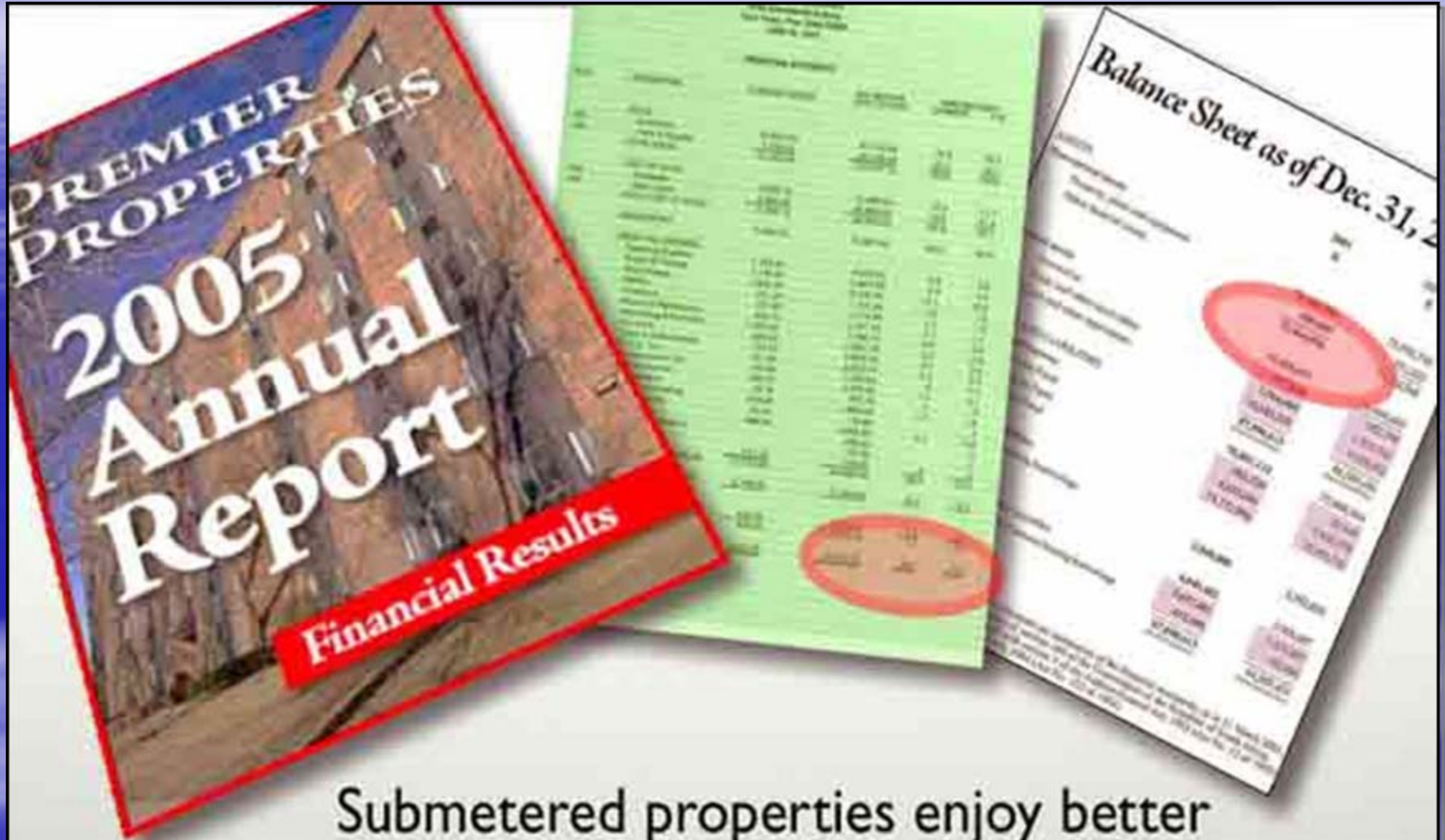
# ■ Multifamily housing: Apartments

## Submetering Means More Net Operating Income



Source: National Apartment Association 2005 Survey of Operating Income & Expenses in Rental Apartment Communities. 3807 US Properties containing 873,532 units were surveyed.

- Multifamily housing: Apartments



Submetered properties enjoy better operating results and a stronger balance sheet.

# ■ Multifamily housing: Manufactured Housing



## Gaslight Village

Lincoln, Nebraska

- 80 mobile home pads.
- Water submetering installed in during summer of 2003.
- Water expense dropped from \$33K to \$26K per year.
- Close to 1 million gal. conserved during 1st year.
  - 2003 = 4.1 M
  - 2004 = 3.2 M gal. consumed

# ■ Multifamily housing: Manufactured Housing



## Parkhill Estates

Michigan

- 280 mobile home pads.
- Some transmitters over half-mile from receiver.
  - 100% reception with NO repeaters.
- Total property water bill:
  - Before SpeedRead = **\$10,000** per month.
  - After SpeedRead = **\$5,000** per month.
- Water consumption immediately fell by **50%!**

- Multifamily housing: Manufactured Housing

# The **SPEEDREAD** Effect on Monthly Water Consumption at Parkhill Estates

7,500 ————— July, 2003 ————— July, 2004 —————



*Ave. Gallons Consumed per Home Site*

## ■ Multifamily housing: Military Bases



# Homes for the Brave

- Submetering has been identified as a primary objective of the Barracks Modernization Program.
- BMP is the US Army's largest single construction project.
- In 2005 SpeedRead submetering systems were installed at:
  - Quantico Marine Corps Base in Quantico, VA
  - Ft. Lewis Army Base in Ft. Lewis, WA
- Dramatic conservation results achieved immediately.

■ Retail Centers

# Lenox Square Mall

250+ Unit Regional Shopping Pavillion  
Atlanta, GA



Standard Repeater # 2



2" Hersey Meter,  
Cooling Tower Make Up Water, Neiman Marcus

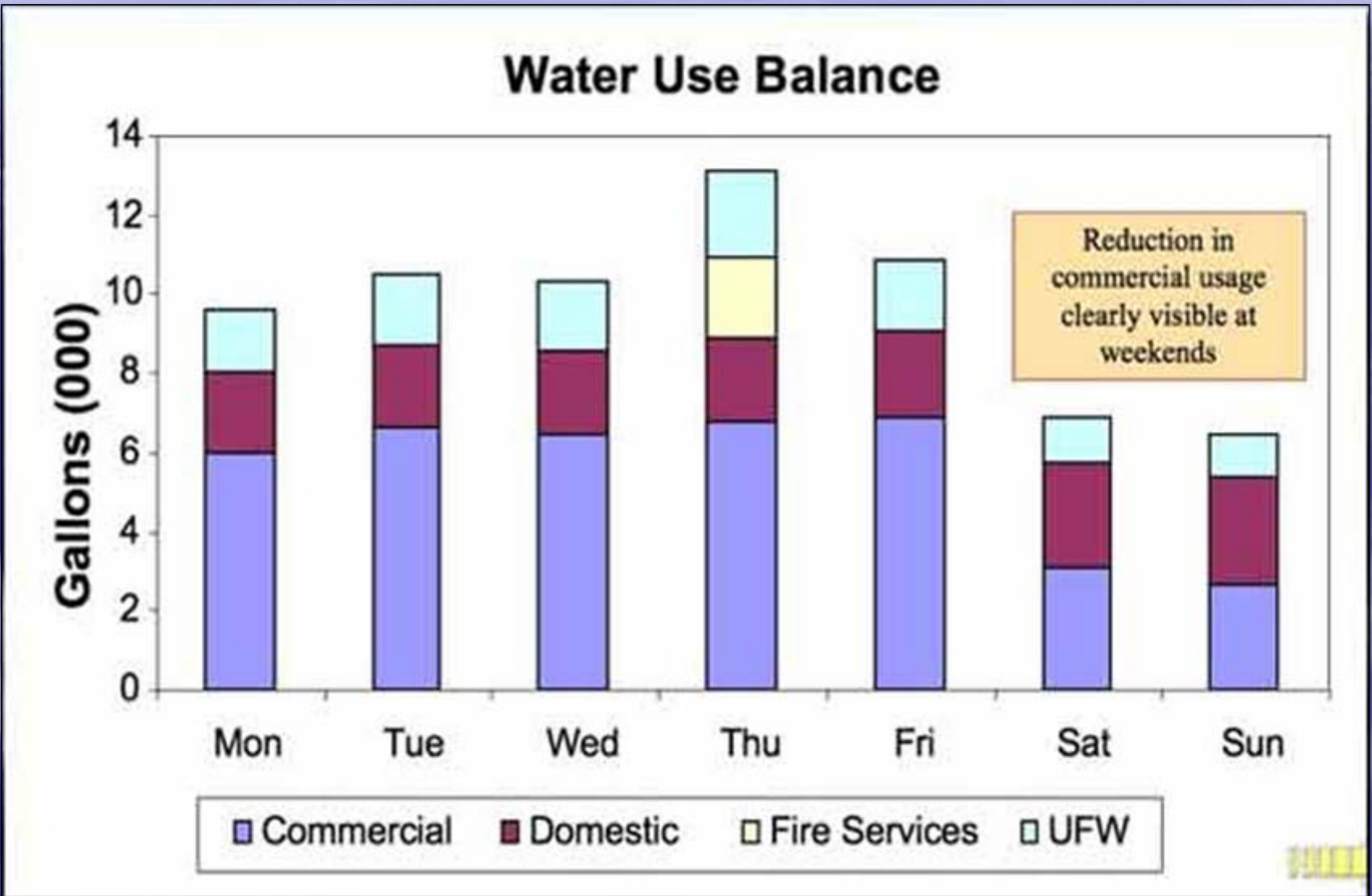


# Airports & Public Facilities



- 6.2 million passengers/year
- 12.5 miles of water and sewage network
- 20 year deal to operate and maintain water/sewerage services
- Network investment analysis
- Metering programs
- Meter reading & billing service

# Airports & Public Facilities

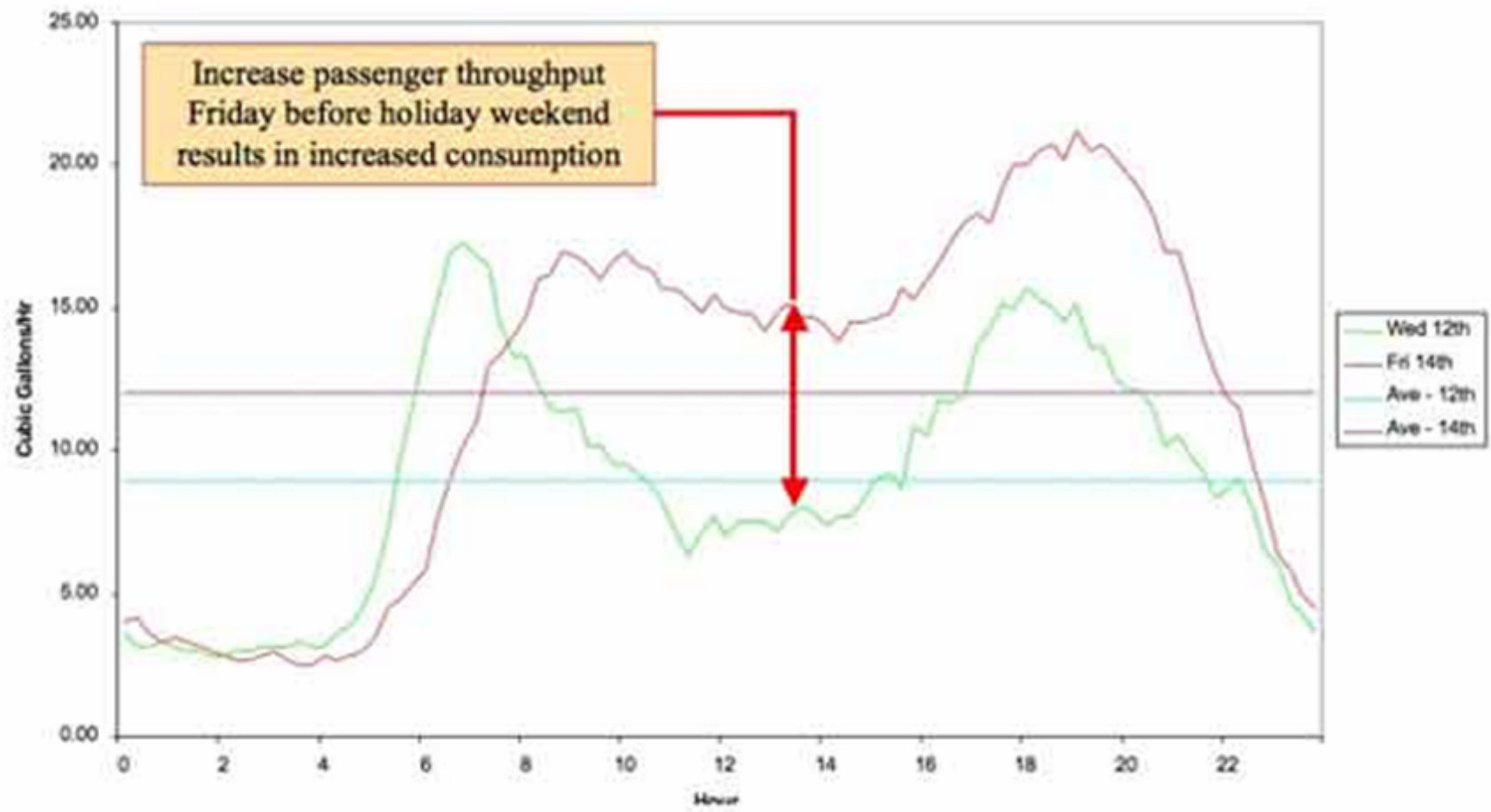


# Airports & Public Facilities



## Diurnal Analysis

Daily Profile

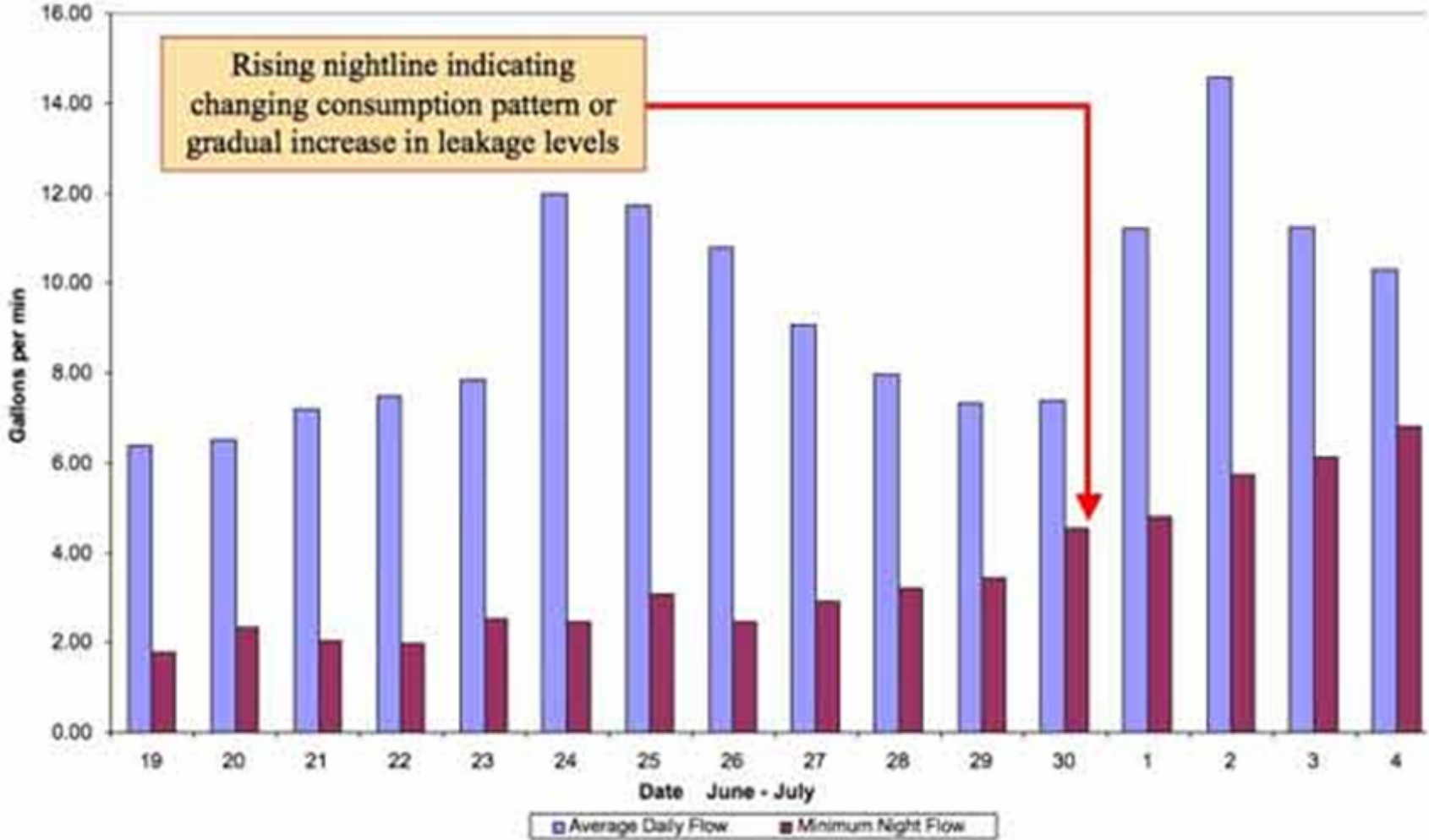


# Airports & Public Facilities



## Nightline

Night Flow and Average Daily Flow



■ Other: Boat Marinas

# SPEEDREAD

TECHNOLOGIES



*Assures that all water and electricity consumed is fairly paid for at both permanent and transient slips.  
No more "sail-aways" giving the harbormaster "the slip!"*



*Attractive value-added option for new accounts wishing to avoid walking to pedestal to read meters after each check-out.*



*Excellent after-sale opportunity for existing accounts who wish to upgrade their previously purchased pedestals.*



# Power & Policy...

*Thanks to advanced technology solutions, such as SpeedRead*

- Submetering has emerged as the most practical and powerful method of achieving conservation policy goals in both the public and private sectors.

To learn more

*visit*

[www.speedreadtech.com](http://www.speedreadtech.com)