



# NARUC 2006 Summer Meeting

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# The “Promise”

**Quality**  
you can trust

**Convenient**  
and easy



**The KP Promise**

**Caring** with  
a personal touch

**Affordable**

# The “Three Safeties” in Kaiser Permanente’s Healing Environment



# Environmental Stewardship Council

## Vision Statement

We aspire to provide health care services in a manner that protects and enhances the environment and health of communities now and for future generations.

# Key Utility Issues

## Availability

- Reliability
- Quality

## Environmental Impacts

- Direct
- Indirect

## Economics

- Capital
- Operations
- Incentives

## Coordination with other regulatory agencies

# On-Site Generation

## The business perspective

**Economic benefit**

**Physical hedge**

**Improved power quality**

**Environmental benefit**

**Potential public safety benefit**

# Technology

Availability

Environmental

Economic

Regulatory

## Technology

- Technology continues to evolve at an accelerated rate. In April 2005, a *new* industry ANSI standard was developed to identify system availability (ANSI/TIA-942)
- New technologies have a “hunger” for power and environment never before experienced

## Electronic medical record (EMR)

- Moving to an EMR is an enormous step in terms of system availability, especially in the in-patient setting
- Front-line clinicians are already requesting increased integration of other applications

## Biomedical devices

- As biomedical devices and other application servers increasingly attach to the IT infrastructure, **availability** and **capacity** expectations for that infrastructure increase

## Business Requirements

- Regions and clinicians (especially inpatient areas) requirements indicate the need for high levels of availability

# Impact of New Technology

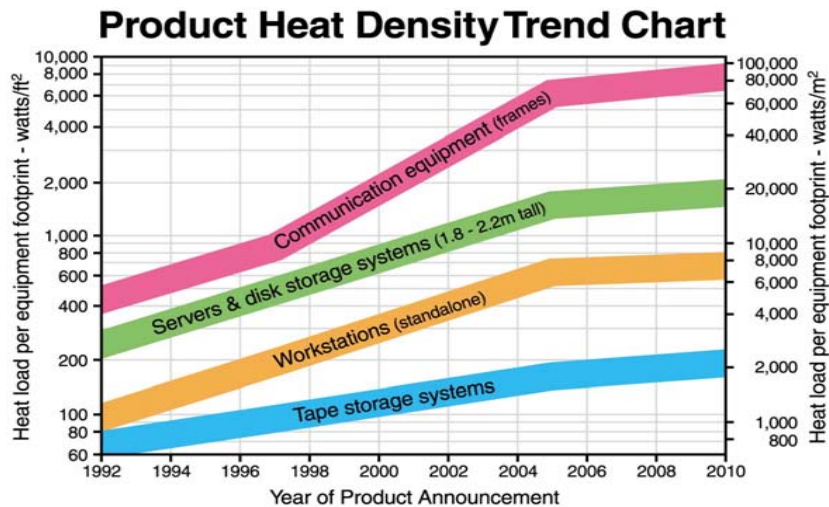
## Availability

## Environmental

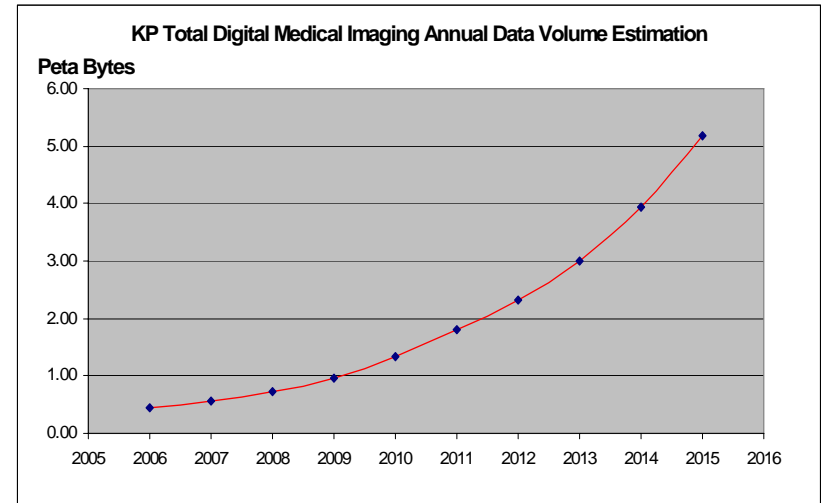
## Economic

## Regulatory

- Duration of outages are not proportional to recovery time
- Outages tend to drive outages
- With the advent of an electronic medical record (EMR), care delivery could be impacted by outages
- Designs must address single points of failure and be resilient enough to withstand human factors (fault tolerant)



\*from The Uptime Institute (<http://207.201.136.39/TUIpages/whitepapers/tuiheat1.0.html>)



Note: Peta bytes\* = 1,000 Tera bytes or thousand trillion bytes.

# Balancing Energy Alternatives with the Environment

Availability    Environmental    Economic    Regulatory

- Energy resource decisions (procurement and on-site) must address environmental issues
- Combined heat and power is significantly more efficient in its use of non-renewable resources
- Noise and emission controls augment project costs
- Solar and wind offer energy from renewable resources; however footprint and cost can be prohibitive

# “Show me the money”

## Availability   Environmental   Economic   Regulatory

- Investments in on-site generation must compete with other business investments
  - Increase market share or
  - Increase revenue or
  - Increase shareholder value or
  - Decrease cost of operations (energy as % of business)
- Thermal load profile has changed
  - Decreased due to outsourcing
  - Increased due to technology
- Benefits of cogen tariffs for natural gas have decreased or evaporated altogether
- Relief from demand charges for cogen

# Regulations, Rules and Laws....oh my!

## Availability   Environmental   Economic   Regulatory

- Recognize that numerous regulatory, accrediting, and legal entities impact your constituents
- Be wary of complex, technical definitions and criteria that could unintentionally impact customers
  - Financial
  - Lost opportunity
- Align incentives, business' approval processes and budget cycles
- Strive for alignment, enabling and facilitating implementation of beneficial technologies

Public Utility Commissions

Air Quality Districts

Energy Commissions

Local Authorities Having Jurisdiction