

Energy Planning in The Next Decade

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You must have long-range goals to keep you from being frustrated by short-term failures.

~ Charles C. Noble

Definition of Energy Planning

- There are a number of different definitions – depending on where you sit in the supply chain, and regulation
- Energy planning for a utility is quite different from that of a consumer, and different still from that of a regulator



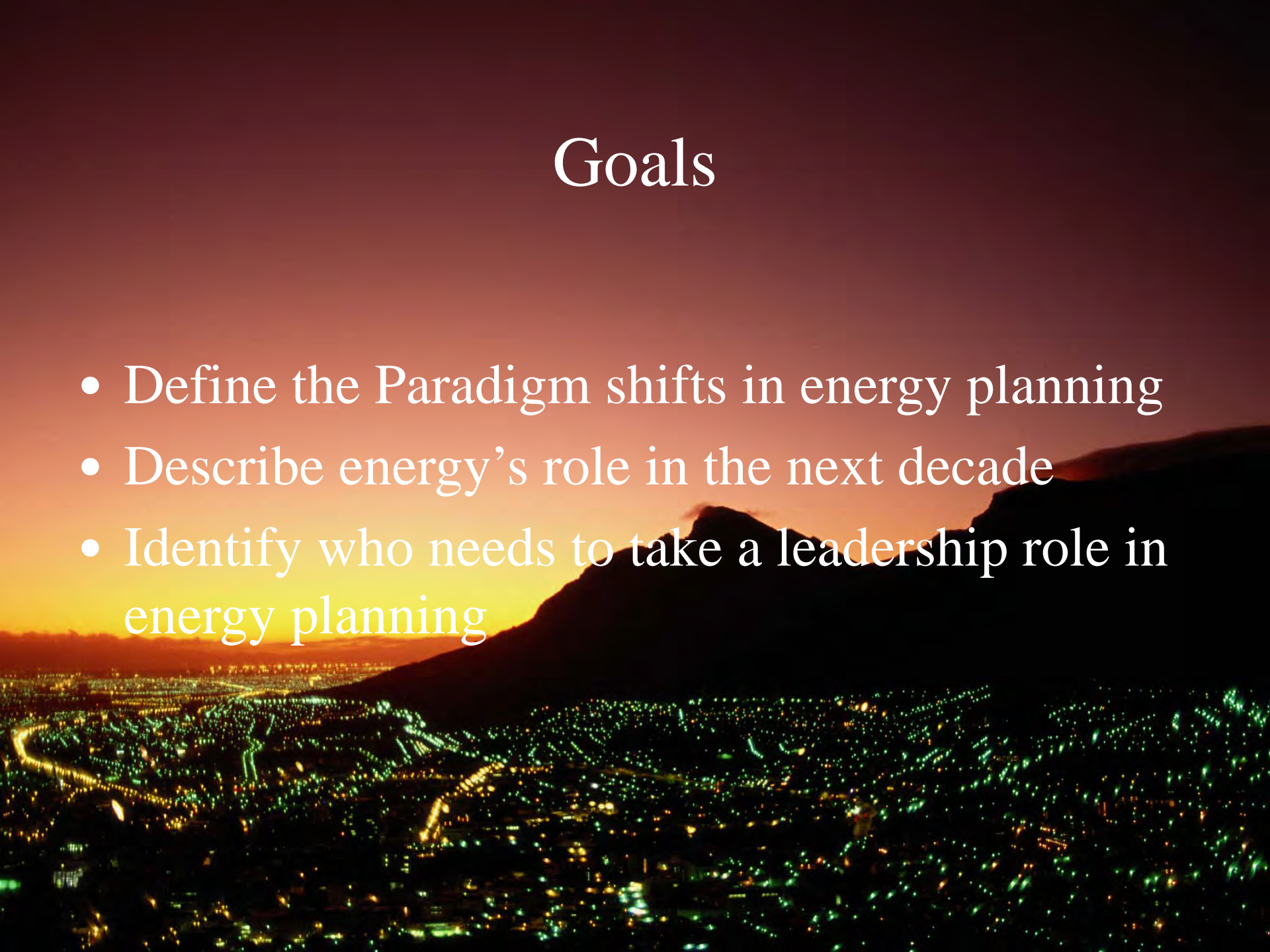
- Whose definition prevails?

Why The Next Decade?

1. Current practices are not sustainable
2. Factors of influence
 - a. Resource inventories
 - b. National Security
 - c. Economic reasons
 - d. Environmental & climate change issues

Goals

- Define the Paradigm shifts in energy planning
- Describe energy's role in the next decade
- Identify who needs to take a leadership role in energy planning



Burning Down The Box!

The “Rules” of Energy/Resource Planning have changed

- Consumers are demanding unconventional resources
- Regulations specify renewables
- The level of influence by “other factors” has increased

Energy Planning Was...



A very one-sided process...

- *Resource-side/Utility focused*
- *Done primarily by the provider/utility*
- *Non-utility factors/cost were not given much consideration*

Energy Planning Was...



Supply-side options only

- *Forecast Load Growth*
- *Identify Supply Options*
- *Evaluate Options*
- *Implement Resource Plan*

CHANGES AFFECTING THE ENERGY PLANNING PROCESS

- The number of competitive resources is growing
- The “true costs” of our energy is being factored into the equation
- Consumers can do their own energy planning



The Energy Paradigm Shift

There are several paradigm shifts going on...

- In the World
- In the United States
- In the energy industry
- In the consumer



Americans and the world can no longer afford to be complacent regarding the issues surrounding our use of energy and resources. It affects us socially, politically, economically, and environmentally. We must establish a new direction that leaves a legacy of good stewardship.

~ Ron Horstman 1986

The Paradigm Shift in the World



We are being called at this time
to see with new eyes – not old
eyes of mere human survival –

The climate issue is not one
among many we must solve.

**It is the 21st century umbrella
Issue for so many others----**

drought, famine, energy
independence, national security,
civil conflicts and war, global
relations and severe weather
events.

The Paradigm Shift In The World

- The climate issue is not just about polar bears.
- Humanity must radically transform our way of being in the world.
 - How we work
 - How we travel
 - How we interact
- Our infrastructure and culture must **support** alternative energy resource development



The Paradigm Shift In The U.S.

“Think global...Act local”

“Small is beautiful”



The Paradigm Shift in the U.S.

Grass Roots movement toward sustainability

- Get our own house in order first
- Eliminate our dependence on foreign energy
- Adopt practices that reduce our carbon footprint
- Adopt policies that address climate change
- Change the way the rest of the world perceives us



The Articles of Common Sense

by Thomas Paine – 1776

“Taxation without representation”



“It’s not what we don’t know that gives us trouble; it’s what we know that ain’t so.”

~Will Rogers

Utility Paradigm Shifts

- From “just sell Kwhs” – to “sell green Kwhs”
- From collecting the money – to creating new revenue streams
- From waiting for other financing – to providing financing to install renewables
- From allowing competition – to competing with themselves
- From monopolistic thinking – to customer service

Consumer Paradigm Shifts

A hand in a dark suit jacket and white shirt cuff is shown from the left, gripping a large, circular wooden steering wheel. The wheel is made of dark wood with visible grain and metal bands at the spokes. In the center of the wheel, a man in a dark suit, white shirt, and dark tie is looking forward. The background is a warm, textured brown, suggesting a leather or wood surface.

- From just paying the bill – to asking where is my energy dollar going?
- From not knowing how much energy I use – to wanting to know my carbon footprint
- From not having choices – to choosing the form of energy best suited to each hour of the day
- From depending on a utility – to independent intelligent generation technologies

CHANGES TO ENERGY PLANNING

- From large centralized fossil-fuel plants – to smaller decentralized low-carbon renewables
- From little public input – to public forums, EISs, and public participation
- From a utility responsibility – to the responsibility of each home owner
- From “all requirements” – to partial requirements



Energy Planning's Role in Economic Growth



Energy Program Benefits

- Retain dollars in local economies
- Create jobs
- Reduce dependence on imports
- Address climate change issues
- Turns problems into resources
- Develops community spirit
- Improve quality of life

Energy Programs Retain \$\$\$

- Most local economies are energy importers...
- Most of every dollar spent on energy leaves the local economy
- Retaining \$ produces economic stimulation
- Consider the “Roll-over affect”

Energy Programs Create Jobs

- Retrofitting produces more than twice as many jobs per dollar spent compared to oil and gas production
- Also more than personal consumption – food, clothing, electronics, etc.
- New technologies create manufacturing jobs.



Reduce Dependence on Imported Energy

A large oil tanker ship, painted in dark blue and red, is being pushed by a tugboat with a red and white hull. The ship is moving through the water, creating a large splash. In the background, a city skyline is visible under a clear blue sky.

- We have become slaves to energy providers
- Our National security is at stake
- Oil purchases drain our economy
- Oil dollars fund terrorist organizations

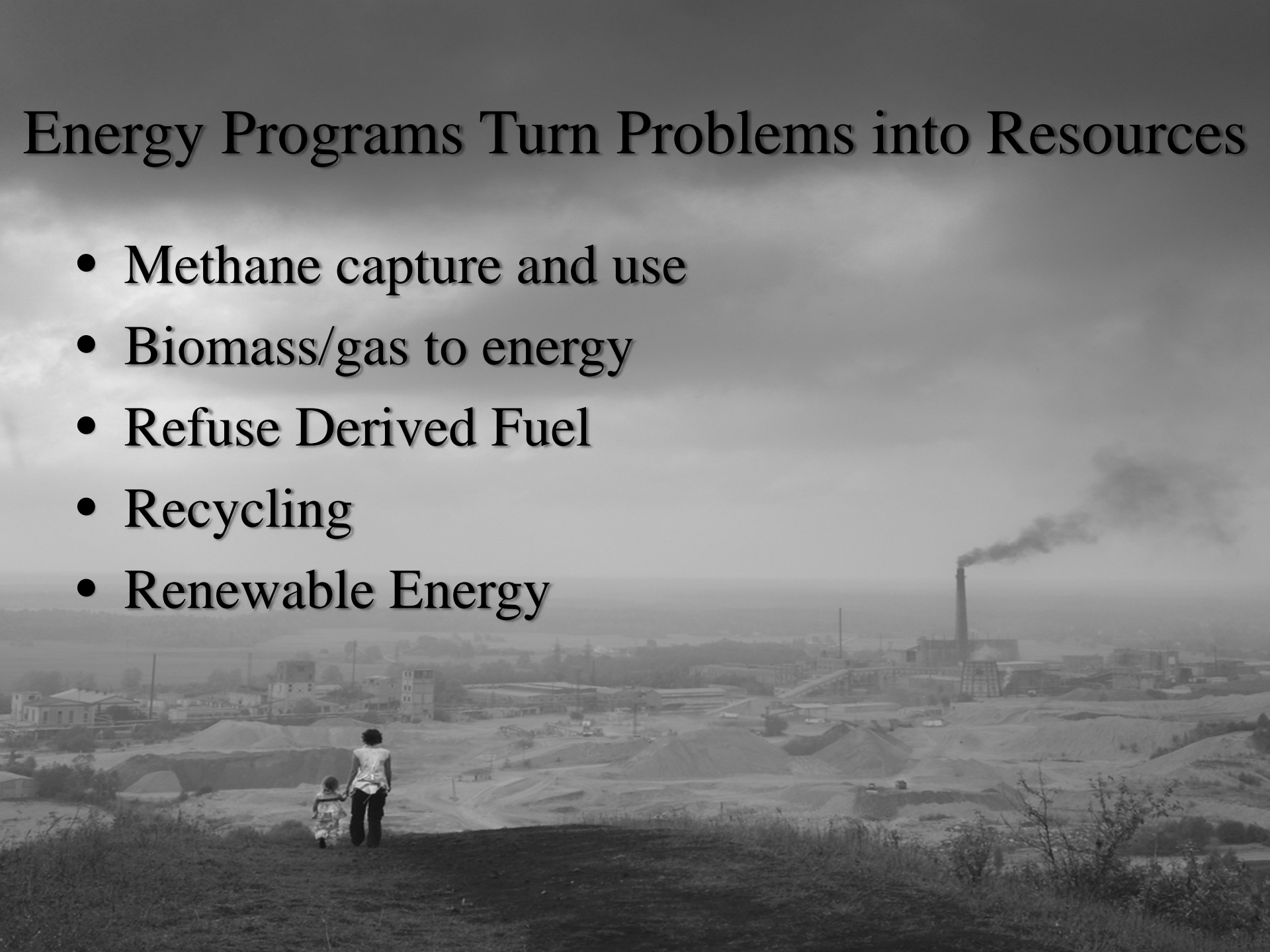
Energy Programs Address Sustainability Issues

- Greenhouse gas reduction policies do not have to have a high price tag
- The benefits are many
- Time is NOW



Energy Programs Turn Problems into Resources


- Methane capture and use
- Biomass/gas to energy
- Refuse Derived Fuel
- Recycling
- Renewable Energy



Energy Programs Develop Community Spirit

- Energy programs raise the awareness level
- Neighbors compare energy usage and act
- Higher participation levels produces higher savings
- The benefits of community spirit are real but hard to measure in dollars



A young man and woman are captured in a moment of pure joy, jumping high into the air. The woman, on the left, is wearing an orange crop top and a white skirt, with her arms raised and a wide smile. The man, on the right, is wearing a light-colored plaid shirt and blue jeans, also with his arms raised and a look of excitement. They are barefoot, and their hair is blowing in the wind. The background shows green foliage and a bright sky, suggesting a sunny day in a park or garden.

Energy Programs Improve Quality of Life

- **Reduce air pollutants**
- **Reduce energy costs**
- **Improve reliability of energy systems**
- **Spur local economic development**
- **Improve public health**
- **Help advance community priorities**
- **Provide leadership and recognition opportunities**

Who is Responsible for Long Range Energy Planning?



- Energy provider's responsibility
- Consumer's responsibility
- Regulator's responsibility
- Other stakeholders responsibility

Energy Provider's Role

- As an energy supplier
- As an economy stimulator
- As an environmentalist
- As a civic-minded industry
- As a public policy influence
- As a self-regulator
- As an agent of change



Consumer's Role

- As a consumer
- As an environmentalist
- As a steward of the planet
- As a voter



Regulator's Role

- Give fair and equal consideration to all stakeholders



Who's on the Energy Planning Dream Team

- All stakeholders are represented
- Participation required
- Cooperation essential



Final Thoughts

- Ask the tough questions
- Assess the options
- Act responsibly



Life is not
about waiting
for the storm
to pass; it's
about learning
to dance in the
rain.

