

Green Power Advisory Committee (GPAC)

Alternative Energy Team

Dave Gardner

Vice President of Member & Employee Services



Your Touchstone Energy® Cooperative 

Rural Energy Conference 2007



Concern for the Communities We Serve



GPAC

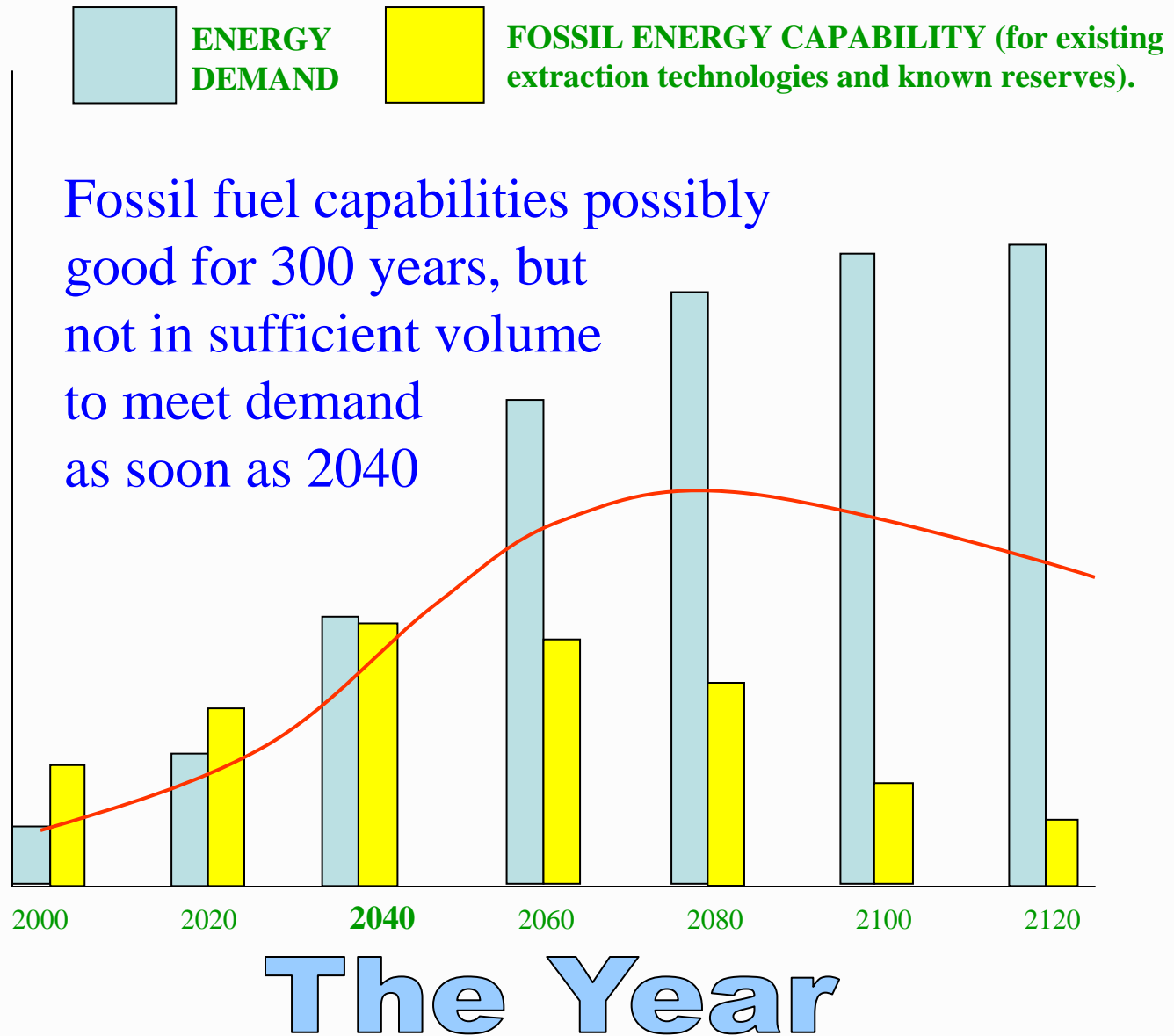
Green Power
Advisory Committee



GVEA Staff

- Kate Lamal, Vice President
- Paul Morgan, Manager of Systems & Network Engineering
- Tom Hartnell, Purchasing Manager
- Henrik Wessel, Environmental Officer
- Todd Hoener, Energy Efficiency Specialist
- Dan Bishop, Engineer
- Dave Gardner, Vice President

Global Energy Demand



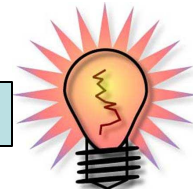
Dispatcher
monitors system
load via
SCADA
(system control
and data
acquisition)



Conventional power resources:

Other gas turbines, hydro-electric, BESS, coal
plant, diesel generators, purchased power.

Feedback
System Status

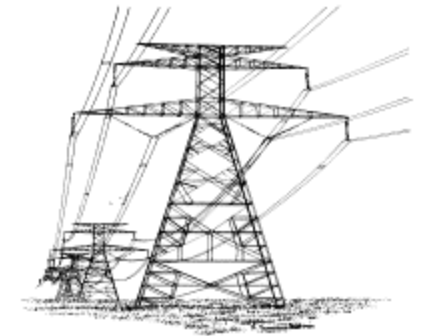


Stored Oil & Gas

Gas Turbine Generator

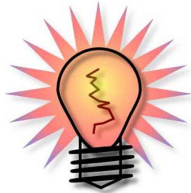


Energy demand
accommodated



Power Distribution

Dispatcher
monitors system
load



Feedback



Conventional power resources:

Other gas turbines, hydro-electric, BESS, coal
plant, diesel generators, purchased power.

Renewable power sources:

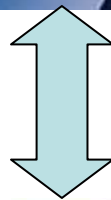
Wind, solar, hydro etc. (Future).

Power in excess of
demand used to
electrolyze hydrogen



Stored Oil & Gas

Possible
future H2
storage



Gas Turbine Generator



Possible hybrid hydrogen
generation (future)

Energy demand
accommodated



Power Distribution



Possible Solutions

- Conservation
- Other Energy Sources
 - (renewable/green sources)
- Start now to prepare for the future



Why did GVEA Convene the Green Power Advisory Committee

The Board of Directors is Responsive to the Membership

- Responsibility to our Members
- Responsibility to our Community
- Responsibility to the Environment

GPAC Purpose

- To identify options, issues and particular concepts relating to Green Power alternatives.
- Provide recommendations regarding these options; and funding, marketing and education issues and concepts.

The GPAC will not draw statistical conclusions or set policy.

GPAC Selection

- Application Process
 - Representation
 - Experience
 - Interest in Green Power
- Final selection was made by the Alternative Energy Team

Original GPAC Members

- Henry Cole
- Tom DeLong
- Joseph Beedle
- Ron Johnson
- Elwood Lynn
- Scott Bell
- Mike Musick
- John Davies
- Lissa Robertson
- William Sackinger
- Joe Durrenberger
- Kelly Hill Scanlon
- Greg Egan
- Richard Seifert



Cooperative Principles

- **Voluntary and Open Membership**
- **Democratic Member Control**
- **Members' Economic Participation**
- **Autonomy and Independence**
- **Education, Training, and Information**
- **Cooperation Among Cooperatives**
- **Concern for Community**



Specific Issues

- Focus on the Utility Perspective in Alaska
- Economies of Scale
- Partnerships/Joint Ventures
- Economic Responsibility and Viable

GVEA's Expectations

1. Green Power pricing recommendation
(financing)
2. List of Green Power alternative
recommendations
3. Public education plan recommendation
(what is important for members to know)
4. Marketing plan recommendation
(how can we tell them)



GVEA's Planning Cycle

- Look out 50 years
- Depreciate for 30 years
- Plan for 10 years
- Schedule for 5 years
- Budget for 1 year

Members' Education Issues

- **Only 39% of our members recognize that Green Power is more expensive than non-renewable energy**
- **Only 38% recognize that Green Power is still being developed and is not readily available**
- **Hydro-Electric (63%)**
- **Nuclear (11%)**



GPAC Original Schedule

- Monthly meetings
- Interim sub-committee meetings
- Presentation of a Final Report to the Board of Directors prior to the 2004 Annual Meeting



GPAC Current Activities

- Quarterly meetings
- Interim sub-committee meetings
- Preparation and presentation of an Annual Report to the Board of Directors prior to each year's Annual Meeting

Contact Information

The GVEA Alternative Energy Team

Dave Gardner (451-5635)



Your Touchstone Energy® Cooperative 