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WASHOE COUNTY

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GENERAL SERVICES DEPARTMENT



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March 16, 2001



TO: Board of County Commissioners

FROM: Tom Gadd

SUBJECT: Agenda Item - Recommendation to Approve and Adopt a Washoe County Energy Strategy

RECOMMENDATION:

It is recommended that the Board of County Commissioners approve and adopt a Washoe County Energy Strategy.

BACKGROUND:

Recent volatility in the electric utility industry in the Western United States, uncertainty with the future of the electric market, generation capability and capacity issues and increasing utility costs have given rise to a myriad of serious concerns. In an effort to be as proactive as reasonably possible during these turbulent times, Washoe County needs a comprehensive energy strategy to establish a plan for the County to:

- Lower its energy usage, where possible, through conservation and energy efficiency programs (demand-side management efforts);
- Encourage the addition of new generating capacity and diverse energy supplies (supply-side management efforts);
- Acquire energy resources as cost-effectively as possible for its own needs (purchase options);
- Develop programs to improve awareness of energy issues within Washoe County (energy awareness programs); and
- Actively evaluate and respond to legislation that impacts utility issues affecting Washoe County (legislative programs).

Development of the Washoe County Energy Strategy was a corroborative effort between General Services and Community Development, Public Works and Building and Safety.

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FISCAL IMPACT:

Unknown.

Tom Ball
Director

TG/ct

Attachment

cc: Kary Singlaub
Mark Gregersen
Howard Reynolds
John Sherman
Lisa Gianoli

Jess Traver
Dave Roundtree
Bob Sellman
Darrell Craig
Kathy Carter

WASHOE COUNTY ENERGY STRATEGY

PURPOSE

Washoe County needs a comprehensive energy strategy that will establish a plan for the County to:

- I. Lower its energy usage (demand), where possible, through conservation and energy efficiency programs;
- II. Encourage the addition of new generating capacity and diverse energy supplies (supply);
- III. Acquire energy resources as cost-effectively as possible for its own needs (purchase options);
- IV. Develop programs to improve awareness of energy issues within Washoe County (awareness); and
- V. Actively evaluate and respond to legislation that impacts utility issues affecting Washoe County (legislative programs).

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I. Demand-Side Management Efforts

Demand-side management programs include energy efficiency initiatives, energy conservation efforts and other programs that reduce the use (demand) of energy. Of all the energy strategies, it is likely that demand-side programs and energy management will yield the most immediate and direct benefits to Washoe County.

- A. The County should continue to expand its energy conservation initiatives through such efforts as:
 - 1. Complete the County's \$1.8 million energy conservation retrofit measures identified in the agreement with e3 for County facilities at the Sheriff's Office & Detention Center, Administration Complex and the Reno Central Library.
 - 2. Benchmark energy consumption of all major County buildings to prioritize future energy conservation measures.

3. Include energy conservation projects in future Capital Improvement Budgets (CIP).
4. Through the use of existing energy management systems, operate County facilities as economically as possible while maintaining acceptable working conditions. Energy Management Systems in use in some County facilities allow the County to analyze its energy usage for those buildings in much greater detail. As a result of the knowledge gained from this analysis, Washoe County is able to manage its electric loads to take advantage of a variable rate pricing structure. These systems use cost-effective energy management techniques to control energy usage, such as:
 - (a) Duty cycling which rotates heating, ventilation and cooling throughout a building to minimize the total energy load at any one time and reduce demand charges from the utility.
 - (b) Load shedding which automatically shuts down energy systems, in a prioritized order, when the total energy load in a building exceeds predetermined limits.
 - (c) Coasting which shuts off energy systems or changes desired temperatures within a building, before the building is actually vacated at the end of a workday.
5. Establish a building temperature standard that limits the temperature in County facilities to a maximum of 69 degrees in the winter and 75 degrees in the summer.
6. Reduce non-essential after hours/weekend use of County office buildings. Encourage the optimum utilization of County Buildings.
7. Utilize the newly acquired utility bill tracking software to analyze energy consumption for irregularities in usage and take corrective action.
8. Explore and determine if the implementation of real-time metering and billing would be cost beneficial or feasible for the County, as a large customer. Real-time metering would allow the County to shift the usage of electricity to off-peak times, when possible, and realize further savings.
9. Maximize the use of Federal and State programs for energy conservation.

- B. The Building and Safety Department, working in concert with Reno and Sparks, should introduce code changes during the next adoption cycle to require buildings be designed to comply with the requirements of the 1995 Model Energy Code (MEC).
- C. The County should encourage the Nevada State Energy Office to update the 1986 Energy Code currently in use to add consistency to energy codes throughout the state.
- D. The County should set the example for energy conscious construction practices for new facilities through such measures as:
 - 1. Place additional emphasis on the qualifications of professional engineers and architects who, in response to future requests for proposals (RFP), demonstrate qualifications for energy efficient mechanical, electrical and building designs.
 - 2. Consider standards that encourage the use of energy conscious designs and alternative energy sources (e.g., wind, solar or geothermal systems) for new construction projects or retrofit projects such as:
 - (a) Review the placement of buildings for best-site orientation.
 - (b) Use of the sun for daylighting to minimize energy usage.
 - (c) Use of passive solar heating and cooling techniques.
 - 3. Use dual fuel designs (such as incorporating both natural gas and heating oil as a heat source), whenever feasible.
 - 4. Buildings should be designed to comply with the requirements of the 1995 Model Energy Code (MEC).
- E. Sierra Pacific is currently developing curtailment policies for use of electricity in the event of energy shortages. The County should actively participate in this process to assure no actions are taken that jeopardize public safety or health.
- F. Washoe County should prepare a business continuation strategy in the event of energy shortages.
- G. The County should create a multi-department steering committee tasked with developing a list of contingencies it will use to deal with energy emergencies as part of the County's energy management plan. These

contingencies will be in addition to the curtailment policy developed by Sierra Pacific and should include considerations such as:

1. Remove from the electric grid County facilities that have adequate emergency power through use of generators.
 2. Adjust thermostats from 75 degrees to 78 degrees at 3:00 p.m. during summer months.
 3. Turn off all non-essential lighting whenever possible. In offices with natural light and workstations equipped with workstation lighting, turn off overheads and use workstation lights.
 4. Encourage a business-casual dress policy.
 5. Curtail the use of non-essential appliances such as fans and personal coffee makers.
- H. Work with other organizations to reduce energy consumption by County residents and businesses.

II. Supply-Side Management Efforts

A supply side strategy should ensure that safe and reliable energy services are provided to County consumers at just and reasonable rates. It should foster the use of competition to achieve these objectives. This strategy should promote competition in markets where competition is possible and would be in the best interests of the County and Northern Nevada's economy. Competition will spur increased efficiency and lead to more choices for customers.

- A. The County through its Community Development Department is committed to a rapid permitting process, which does not create additional barriers to entry for the new generators who may consider building in Northern Nevada.
- B. The County should continue to utilize its established team approach to complex project approvals where all necessary departments collectively meet to identify and solve issues for those major projects.
- C. The County should explore the use of incentives to encourage the siting of new generation capacity in Northern Nevada and encourage Sierra Pacific to add new transmission capacity associated with such development. The addition of new generation resources in Northern Nevada will, in large part, depend upon whether Sierra Pacific's transmission system has capacity available for new generators to use simultaneous with Sierra's use.

- D. The County is currently involved in the upcoming review of an environmental impact statement (EIS) for future facilities for Sierra Pacific. The review should include a review of Sierra Pacific's long-term transmission capacity plans as well as its short-term construction plans.
- E. The County should encourage the development of renewable energy generating units, where feasible.
- F. The County should explore the deployment of distributed generation technologies for County facilities and encourage legislation that requires distributed generation to be interconnected. Distributed generation is generally described as the integrated or stand-alone use of small, modular electric generation close to the point of consumption.
- G. Encourage our representatives in the Federal government to support expanding the 1.5¢ federal tax credit to all renewable power based generation (currently only wind receives the tax credit).
- H. Encourage the use of efficient, environmentally friendly generation technologies.

III. Purchasing Options

Until the market is opened to retail electric competition or other legislative changes are enacted, Washoe County does not have the option of buying its electricity from any company other than Sierra Pacific Power Company. Therefore, the purchasing options available to Washoe County are limited. In preparation for an open competitive utility market Washoe County should have a comprehensive understanding of their energy requirements and be ready to evaluate and decide on purchasing options, which produce the most benefits.

- A. Washoe County should support initiatives with options for municipal aggregation, which would allow the County to aggregate (or group together) its loads to further reduce its energy expenditures. The use of municipal aggregation authority could be used:
 - 1. To aggregate all of the County's energy loads together, as a single customer. In so doing, the cost per kWh may be lower because the County's total load would categorize it as a much larger customer than it is currently classified.
 - 2. To group the energy purchases of Washoe County and surrounding area governments together to improve their purchasing power and, thus, lower their energy prices.

3. To ultimately consider the option of becoming the provider-of-last-resort for the citizens of Washoe County. Although the County may never wish to exercise this option, the authority to aggregate would provide the County the flexibility to take such action in the future if it deemed necessary.
- B. Unlike electric generation service that cannot be purchased separately from the utility, natural gas has already been "deregulated" and is available as a separate commodity to customers who use large amounts of gas in Nevada. These customers can arrange for natural gas to be transported over the gas pipelines and distribution systems of Sierra Pacific's existing facilities. Washoe County should explore the possibility of acquiring natural gas at lower prices as a "transportation" customer.
 - C. Washoe County should ensure the County tax and franchise fee revenues are maintained regardless of business changes resulting from energy utility restructuring.

IV. Energy Awareness Programs

Washoe County should sponsor energy awareness programs to inform and educate government, businesses and the public about energy issues.

- A. The awareness programs should use such opportunities as workshops for Commissioners and staff; the County Line newsletter; Washoe Works public access television, the media and other forums to educate County leaders and employees, local businesses and the public about these complex issues.
- B. Washoe County should encourage the formation of consortiums with other government entities, local businesses and the public to address energy issues, share ideas, best practices, develop joint strategies and resource planning to address energy issues.

V. Legislative Programs

Washoe County should continue to actively evaluate and respond to proposed legislation that impacts utility issues affecting Washoe County. The County must also evaluate existing statutes to determine if changes are necessary.