Testimony by VP Kathleen O'Brien
Vice President for University Services, University of Minnesota

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Mr. Chairman, good morning and thank you for the opportunity to present today.

I am Kathleen O'Brien, Vice President for University Services at the University of Minnesota. I am responsible for the campus operations, including Facilities Management and Utilities on the Twin Cities Campus and for oversight of construction and health and safety for the 4 campuses and multiple research centers of the University across the State.

To give you some context, the University of Minnesota manages more than 800 buildings, encompassing 28.5 million square feet (more than 11 Mall of America's). We have a large, old and complex set of facilities, ranging from classrooms and offices to athletic venues, research laboratories, student unions, animal barns and greenhouses.

The University manages its utility operations to maximize our performance on these 3 principles:

- Reliability
- Environmental Stewardship
- Risk and Cost Management

I would like to briefly address how the University is working on each of these principles and then more specifically respond to the challenges the University faces with the volatility of natural gas prices.

<u>Reliability:</u>
We are responsible to make sure:

- That daily teaching continues to our student enrollment of over 60,000,
- That critical and sensitive research of over $500M is protected and secure,
- And that life critical care at the University-Fairview Hospital and Clinics is maintained.

In short, we cannot fail. To this point we have made significant utility infrastructure investments, are updating our utility master plans and we work with our energy provider partners to maintain secure and reliable service.

<u>Environmental Stewardship:</u>

The University makes environmental stewardship a central principle in its utility management, through energy conservation, efficiency in production and the use of alternative energy sources.

1. **Energy Conservation**
   The University has conducted ongoing energy conservation programs for many decades. These efforts have ranged from installing high efficient florescent lighting systems, to a campus-wide conservation campaign aimed at changing behavior patterns, to the installation of direct digital controls that allow equipment to be controlled from a central campus site.

2. **Efficiency in Production**
   The University has made significant investments to utilize more efficient boilers that have reduced the amount of fuel we need in order to heat the campus. In tandem with our energy conservation efforts, since 1994, the University has been able to reduce the number of BTUs required to heat the campus by over 20%.

3. **Alternative Energy Sources:**
   The University is working very hard to utilize alternative energy sources to meet its utility needs.
   a. In the late 1990s, when the University renovated its major steam plant, it installed a Circulating Fluidized Bed boiler that is capable of burning multiple fuel types. After several years of work, we are very near an approved major permit amendment that would allow us to burn oat hulls, a biofuel that is currently priced substantially lower than current natural gas prices (est. $2 - $3/MMBTU)

   b. In March 2005, the University of Minnesota's Morris campus completed a wind turbine that is now producing wind energy. This 1.65 MW turbine is reducing the cost to the campus for electricity overall and the amount of fossil fuel based energy.

   c. Also at our Morris campus, an initiative is underway to establish a biomass gasification system that will focus on using corn stoves as the primary fuel source to provide up to 75 percent of the heat and cooling loads for the campus from alternative energy. It is intended to reduce the use of natural gas and fuel oil as the campus energy source.

<u>Risk and Cost Management:</u>

As a University system, we have an annual overall utility budget of $150 million. On the Twin Cities campus for heat and electricity alone, we are budgeting nearly $90 million to purchase and deliver these utilities for our next fiscal year.

The Twin Cities campus generates its own steam heat through 2 plants for close to 22 million square feet of building space and more than 200 buildings. Annual steam production is approximately 1.6 billion mlbs, enough to heat and cool 55,000 average

homes (or the equivalent of the city of St. Cloud). Your concerns regarding natural gas prices are especially important to the Twin Cities campus is required by its permit to produce at least 70% of its steam plant produced BTU's through the burning of natural gas, wood and hopefully soon other biofuels.

Therefore, we have been significantly impacted by both the overall increased cost for natural gas and the great volatility in the markets. As recently as June 2003, the University purchased natural gas for $3.12 per million BTU. Contrast this to projections this winter that went as high as $15 per million BTU.

For the current fiscal year the Twin Cities planned to spend $12.3 million to purchase natural gas. Because of the great volatility in pricing, it is difficult to project our actual final cost. For a point of reference, if the Twin Cities campus needed to pay $1 dollar more per million BTU for all of its natural gas usage for a complete year, it would cost an additional $2 million. Because of efforts by the University to "buy smarter", we have limited our expected cost increase next fiscal year to $4 million, roughly a 1% increase in tuition.

How are we buying smarter? The University has developed a team to monitor the energy market and to contract for natural gas purchases in the future in order to lower our expected costs and to increase price certainty for our planning and budgeting purposes.

Thank you for your time and I will take any questions you have.