


MEMORANDUM

TO: Mayor and Council Members

CC: Marc A. Ott, City Manager

FROM: Larry Weis, General Manager, Austin Energy 

DATE: October 11, 2011

SUBJECT: Critical Business Need for Mueller Energy Center Gas Turbine Gearbox

ACTION:

As detailed below, and in accordance with City Council-approved purchasing procedures, I am designating as a Critical Business Need of Austin Energy (AE), the expedited replacement of the gas turbine gearbox at Mueller Energy Center. The gearbox will reach the end of its 30,000 hour life in early November, 2011. Beyond that milestone, the exchange value of the gearbox is drastically reduced and the likelihood of catastrophic failure increases. Replacement at this time is recommended to ensure reliability and provide the least cost to the City. Total exchange cost to replace the gearbox at this time is \$132,668.00.

BACKGROUND:

The 4.3MW Solar Mercury 50 is a high efficiency, low emissions gas turbine engine that produces electrical power for the Mueller Energy Center and for the Dell Children's Medical Center of Central Texas. The gearbox is an integral component of the Mercury 50 engine, reducing the high output speed of the turbine to a slower speed required to drive the generator. This purchase needs to be expedited and the order placed now because a failure of the gearbox will make the gas turbine unavailable and substantially increase the replacement cost. Allowing the gas turbine to become unavailable will violate the Austin Energy *Commodities Services Agreement* with Seton, which states that the gas turbine is to be the primary source of power for the Children's Medical Center. The high efficiency gas turbine is instrumental in the hospital maintaining their Platinum LEED certification.

Austin Energy plans to bring this item forward for ratification by the City Council in December. Please let us know if you have any questions; I can be reached at 322-6002.