BILL 2011-40

****** Full Reading ******

MEMO

To: Mayor & City Council

From: Mike O'Donnell, Fire Chief, Corey Sloan Chief of Police

Date: April 27, 2011

Re: Emergency Power Generator for Public Safety Building

In 1996 the Public Safety Building was constructed with an emergency power generator of 20 kW. The generator was sat in place and the building was built around it, enclosing it in concrete blocks, with an exterior entrance.

In 2008 the Police and Fire Departments began to notice failures with the generator at the Public Safety Building. These failures amounted to power fluctuations to complete failure of the generator to come on when we lose public power.

Staff had authorized electricians and maintenance technicians, for the generator, to look at it for repair. It was determined due to increased electrical demand, especially in the communications center and emergency operations center, the generator was undersized for the current load demand placed on it. A recent peak demand for the building was determined to be 71 kW by city utility staff. In addition, the recent purchase of the old EMS building has increased our overall square footage. The peak reading, from above, does not include the electric demand from the old EMS building. *One thing to note is the generator is in good shape but just overloaded and undersized for the increased electrical demand.*

Staff has been able to remove circuits from being powered by the generator and move other circuits to different legs to "patch things", but we still continue to see failures of the generator. Currently, only necessary items are powered by the emergency generator, such as the communications center and garage door openers for the fire department. It should be noted that the HVAC, along with numerous other items that are needed, are not currently powered by the emergency generator.

Staff has looked at other alternatives in the city inventory and has not been able to locate a generator that would be efficient and effective in handling emergency operations. We currently have a 35 kW trailer mounted generator for use at the United Methodist Church for an emergency generator in a sheltering event. The fuel source for that generator is diesel fuel. This generator is also undersized based on peak demand at the Public Safety Building.

Staff has a genuine concern that future failures by the current emergency generator, and its inability to operate the communications center, will increase the risk of property damage and/or the risk of serious physical injury or loss of life

Staff requested a $65,000 CIP in the 2010-2011 budget for an emergency generator. This was approved by council. Staff obtained the services of a local electrician, as an independent contractor, to assist us in determining our current and future electrical demand needs.

The contractor and city staff recommended a 125 kW generator that has a two fuel source option. The two fuel source option will add a redundancy factor that we currently do not have. If the natural gas (NG) service to the city is interrupted, due to a natural or man-made disaster, we could utilize liquefied propane gas (LPG) to power the emergency generator. In addition, the increased kW output will allow for our future electrical demands. The proposed generator will be placed on the south exterior of the public safety building.

During the specification phase of the project the independent contractor determined the electric transformer supplying the building with electricity was undersized. The contractor met with city electric officials who also agreed the transformer as well as the service wiring to the building was undersized. The current configuration, of a 208V transformer, is only capable of handling a 200 amp service. The emergency generator that was specified and required is 400 amp.

City utilities staff indicated this would be a normal electrical upgrade, no different than for any other commercial customer, and would upgrade the transformer and the service wiring to the building. This cost would be covered from the electric fund and is not included in the overall cost of this project out of the general fund.

The current generator, as stated above, has been built into the public safety building. To remove it would require the demolition of and reconstruction of concrete block walls. City staff recommends leaving the 20 kW generator in place as a “back up” to the new generator. The entire load would be removed from the 20 kW generator and it would be rewired to provide back-up power only to telephone, radio and 911 communications equipment. This would add an additional redundancy to our most basic emergency communication needs.

On April 26, 2011 staff met with the council public safety committee and discussed the above information in detail. Staff laid out the following purchase plan:

Phase I: The city contractor has bid three generators in the name of the city. The contractor indicated by the City bidding it there would be no additional mark up by a contractor bidding it and purchasing it. In addition, the city could take advantage of any government purchasing perks that may be available. The three bids are attached as provided to the City by the contractor.

Phase II: This phase of the project would involve the placement of the generator, electrical wiring and overall installation of the generator at the public safety building. This will require an authorized electrical company to do the install. *Staff has inquired and been told the city electric crew will not install the generator at the public safety building due to it being commercial /*

residential electrical work as well as not having the ability to insure or warranty the work. It should be noted the electric department is assisting with this project physically with manpower and fiscally with funding from the electric fund for needed site upgrades.

During Committee review it was determined that the three bids had a 30-day price guarantee that would expire if Council read over two separate meeting. Staff was directed to seek extensions to those bids and any price adjustment that would accompany those extensions.

Staff feels a two phase approach to this project is the most cost efficient and effective way to move forward with the project. The council public safety committee asked for it to be taken to the entire council for discussion and approval.

Recommendation:

Staff recommends a first and final reading on this bill Monday night. If we are able to authorize the purchase at this council meeting the cost of the generator will be $26,650.00. However if there is a second and third reading the cost will go to at least $30,667.00. We have been told this increase is due to rebates expiring and federal emission standard changes that will affect the overall cost of the generator.

Review and authorize the City Manager to enter into a purchase agreement for $ 26,650.00 with Central Power Systems and Services for an emergency power generator for the Public Safety Building.

This would begin Phase I of the emergency generator project only. Phase II will be bid and presented to council for consideration at a later date.

Bill 2011-40

AN ORDINANCE AUTHORIZING THE CITY MANAGER OF THE CITY OF CAMERON, CLINTON AND DeKALB COUNTIES, MISSOURI TO ENTER INTO A CONTRACT WITH CENTRAL POWER SYSTEMS AND SERVICES, TO PURCHASE A 125 KW, DUAL FUEL SOURCE EMERGENCY POWER GENERATOR TO BE INSTALLED AT THE CAMERON PUBLIC SAFETY BUILDING OF THE CITY OF CAMERON

WHEREAS, the City of Cameron Public Safety Building is in need of a new and larger emergency power generator. The current 20 kW generator is undersized based on a peak demand of 71 kW at the public safety building as determined by City Utility Staff; and

WHEREAS, the City of Cameron has enlisted the services of a local electrician, as an independent contractor, to assist us in determining our current and future needs for emergency generator power; and

WHEREAS, the contractor has determined a need for a 125 kW dual fuel source emergency power generator will fit our current and future needs; and

WHEREAS, the contractor has solicited three bids from three separate companies for said generator, with the lowest and best bid being from Central Power Systems and Services for $26,650.

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Cameron, Clinton and DeKalb Counties, Missouri as follows:

Section 1. The City Manager is hereby authorized to purchase a 125 kW dual fuel source emergency power generator from Central Power Systems and Services for $26,650 to be located at the Cameron Public Safety Building.

Section 2. The City Clerk is hereby directed to attest to the Mayor's signature.

Section 3. This Ordinance shall be in full force and effect from and after its passage.

Read two times, passed and approved this 2nd day of May 2011.

_____
Mayor Dennis M. Clark

Attest:

_____
City Clerk

full reading