UTILITY COMMITTEE

The Utility Committee Meeting was held on September 28, 2015 at 5:03 p.m. with Chairman Hutchison presiding. Members present were Mr. Cole, Mr. Neil, Mr. Blakeman, and Ms. Stewart. Members of Council present were Mr. Hosfelt (arrived at 5:16 p.m.; departed at 5:24 p.m.; and returned at 5:39 p.m.), and Mr. Slavin.

AGENDA ADDITIONS/DELETIONS

Mr. Neil moved for approval of the agenda, seconded by Mr. Blakeman and unanimously carried.

Critical Repair - VanSant Exhaust Plenum

Mr. Scott Koenig, City Manager, stated that due to time constraints, this item had been placed on the City Council agenda for the meeting being held later in the evening.

Mr. Koenig informed members that the VanSant Frame 6B Combustion Turbine (CT) exhaust plenum, transition piece, and expansion joint have degraded over time and now require replacement. Since beginning commercial operation in 1991, there have been occasional upkeep repairs made to the referenced components with the latest repairs in the fall of 2014 and the summer of 2015. He stated that an Infrared Thermograph Inspection Report was completed by Compliance Environmental, Inc. Mr. Koenig advised that the depleted condition of the plenum wall(s) allows heat infusion into the CT compartment which has started to cause damage to the ignitors, flame scanners, and other associated control wiring instruments, which could affect the unit reliability and availability. He explained that the exhaust system was not properly ventilating the heat generated from the CT due to the age of the parts.

Mr. Koenig indicated that the repair would be completed during the current outage. He stated that staff was requesting expedited processing of this request to allow North American Energy Services (NAES) to complete the necessary engineering, obtain contractor quotes, and make the contractor selection to manufacture the new plenum and install the plenum, transition piece and expansion joint before the 2016/2017 PJM Capacity Performance operational period, which begins in the spring.

Mr. Koenig stated that a Request for Proposal (RFP) package was advertised by NAES and NAES is currently reviewing the submissions. He explained that this work is an Original Equipment Manufacturers specialty item with a limited number of organizations familiar enough with the installation requirements to support the City's desired replacement schedule. The estimate received for the above work is from the original manufacturer of the plenum for VanSant, Braden Manufacturing, LLC. The preliminary estimate from Braden, in the amount of $430,000, did not include replacement of the transition piece or expansion joint. In addition to Braden Manufacturing, LLC, NAES will obtain at least three (3) proposals from other contractors familiar with this work, Consolidated Fabricators and Universal Acoustics and Emissions Technology. NAES will continue to research additional resources capable of performing this work to ensure the best capable contractor and cost estimate(s). NAES would like approval and permission to proceed and select the highest evaluated bidder to immediately award the project once the bids are received and reviewed. This request is only to promulgate the expeditious manufacture of the material component parts necessary to perform these repairs, without further review by City

Council. The proposals will be evaluated using cost, experience, and completeness of bid to select the contractor who will perform the work, and all work must be completed prior to June 1, 2016.

Mr. Koenig reminded members that staff was requesting authorization from City Council during their meeting being held later in the evening because of the time line associated with the repair; however, staff felt that it was important to advise members of the Utility Committee as well.

Mr. Koenig advised that, to fund this repair, the City would delay the inspection and repairs on the Unit 3 cooling water line, noting that these critical repairs at VanSant were more important in the hierarchy of the utility than the cooling water lines. He explained that the Unit 3 cooling water line repair was budgeted at $469,000, and that money would be moved to fund the proposed replacement of the parts associated with the CT unit, which was currently estimated at $430,000.

Staff recommended delaying inspection and repairs on the Unit 3 cooling water line and funding the critical repairs needed on the VanSant exhaust plenum, transition piece, and expansion joint in accordance with the completion date of June 1, 2016.

Mr. Neil asked how critical the Unit 3 cooling water line problem would be if it were deferred, questioning whether it would need emergency repair in the future. Responding, Mr. Koenig explained that the inspection and repairs for the Unit 3 cooling water line was routine maintenance, and staff would keep an eye on it. He stated that the VanSant exhaust plenum was a higher priority and, as the City finishes projects this fiscal year, staff will determine whether there is additional money for the Unit 3 inspection and repairs. Mr. Koenig noted that if there is not funding available this fiscal year, the Unit 3 inspection and repairs would be re-budgeted next fiscal year.

In response to Mr. Blakeman, Mr. Koenig stated that he did not think that there was evidence that this problem was as critical in the fall of 2014. He explained that some repairs were completed in the fall of 2014 and then there were additional problems in the spring of 2015. Mr. Koenig informed members that this was becoming more important because the utility is changing. Generation assets are changing and, in the past four (4) years, the City had gone from a more passive running of the system to a more active engagement of running the system. He noted that the City now wants these generation assets to run whenever the economics say that the City can get a return on its investments and the City is actively pushing both The Energy Authority (TEA) and NAES to ensure this happens.

Mr. Koenig advised that the VanSant repairs were on the horizon but, as the market has changed and this unit has deteriorated more since last fall, these replacements and repairs have become more critical. He explained that there used to be a little more float in whether entities could produce or not, noting that if an entity had an issue and could not, they probably would not get penalized as long as another entity could pick up the loss; however, as the market tightens up and the new capacity requirements come in to play, if entities cannot run, they will get penalized.

Mr. Blakeman noted that the $430,000 estimate did not include the additional equipment that may be required and asked what the estimated cost of the additional equipment would be. Responding, Mr. Koenig stated that the $430,000 included the plenum, the transition piece, and the expansion joints; however, it did not include any type of instrumentation that may have been damaged by heat, since staff did not currently know whether there was additional damage.

In response to Mr. Blakeman, Mr. Koeing stated that the additional equipment had not yet been priced and it was his understanding that, in some cases, the different contractors may be able to provide all three (3) components.

Mr. Blakeman, referring to the seven (7) repairs listed as critical on the Infrared Thermography Inspection, asked if there were any previous indications that there were that many critical problems or if they were only detected with this inspection. Responding, Mr. Harry Maloney, Electric Director, explained that the steel inside the exhaust stack was corroding and very thin, so it was patched as best as possible and put back together. After that, the unit did not run very much and the problem was not realized until after staff started testing for the newly installed water injection system. He stated that staff ran the unit a lot and then, all of a sudden, it would not start, which they realized was because the flame scanner was melted. After the water injection was installed and the unit ran more frequently, they realized the patches were not holding. Mr. Maloney stated that staff did some other minor repairs, patched more holes, and moved some things around this past August and September.

In response to Mr. Blakeman, Mr. Maloney stated that he did not know which problems were category one (1) or category two (2); however, he did know that it was leaking and they could not start the unit. He explained that it is a fast start unit; however, repairs are necessary to enable it to start within ten or fifteen minutes instead of an hour.

Mr. Blakeman agreed that the problem is critical and has to be fixed; however, he expressed concern with using the money for the cooling water line repairs for Unit 3. Responding to Mr. Blakeman, Mr. Maloney stated that the cooling water line pipe was a 40-year old, four (4) to six (6) foot, cast-iron pipe that was in the ground and corroding inside. Mr. Maloney stated that he had briefly discussed this problem with Mr. Vince Scire, former Plant Manager, McKee Run Generating Station, before he left, and Mr. Scire indicated that this type of problem was typically addressed by putting in a liner.

Mr. Blakeman informed members that this pipe had leaked before at the joints. Referring to Page 194 of the FY 2015/2016 Budget, he informed members that the Capital Investments Plan (CIP) stated that "delaying this project beyond 2016 will increase the risk of a failure causing extended unit outage to repair or replace the failed pipe, as well as incurring water spillage to the surrounding ground. Additional budget dollars will need to be allocated to make the repairs of the failed piping." Mr. Blakeman noted that no estimates were provided for these additional costs. He shared his concern that if the City cannot cool the water, the unit cannot be run and the City would be taking out 102 megawatts (MW). He asked if there was another funding source for the repairs to the VanSant exhaust plenum that would not delay the Unit 3 cooling water line repairs.

In response to Mr. Blakeman, Mr. Maloney stated that he would revisit the CIP and talk to Mrs. Donna Mitchell, Controller/Treasurer, about other funding sources and the possibility of postponing or moving a less critical project. He indicated that it was mainly a matter of accelerating the repairs, noting that the money would eventually be in a future budget; however, the City was running out of time.

Mr. Blakeman noted that, years ago, the City had scuba divers go through this pipe and it is a huge pipe with a lot of water. He stated that if this pipe leaks, it will flood the field out and shut the unit down.

Mr. Hutchison asked if, in the future, the City would be required to use the VanSant plant more often than not. Responding, Mr. Maloney stated that the way Dover is situated, the CT should be a quick start unit since it gets dispatched first for unusual circumstances. He explained that staff typically knows a day ahead of time when the steam unit will need to run. Mr. Maloney reiterated that the CT is dispatched for emergencies and, although it currently takes an hour to start, it should be a ten-minute start, which he is working on changing. He stated that it is important to be able to get the CT on line in a hurry because it might end up with more run hours than the 100 MW unit and noted that it has to be set up correctly so it does not burn itself out, which is currently happening with the equipment.

Mr. Blakeman noted that although PJM does not call the VanSant Unit on that often, it must be available when called upon. In response, Mr. Maloney stated that the use of the VanSant Unit has increased because the City is able to get 500 dekatherms (Dth) of gas for it, which is more efficient to dispatch because the City does not get enough gas to run the 100 MW unit.

Responding to Mr. Hutchison, Mr. Koenig reiterated that Staff recommended delaying inspection and repairs on the Unit 3 cooling water line and funding the critical repairs needed on the VanSant exhaust plenum, transition piece, and expansion joint in accordance with the completion date of June 1, 2016. He stated that if the Committee endorses Staff's recommendation, Staff would then look at the CIP again, in case the re-prioritization of Unit 3 is necessary, and bring forward any changes that need to be made.

In response to Mr. Hutchison, Mr. Koenig explained that the City's contract with Calpine is for capacity, and does not take effect until the City takes Units 1 and 2 offline.

Mr. Neil moved to recommend delaying the inspection and repairs on the Unit 3 cooling water line and funding the critical repairs needed on the VanSant exhaust plenum, transition piece, and expansion joint in accordance with the completion date of June 1, 2016, as recommended by Staff. The motion was seconded by Mr. Blakeman and unanimously carried.

Review of PJM Capacity Performance Auction

Mrs. Donna Mitchell, Controller/Treasurer, reviewed a presentation entitled "The Energy Authority - Review of PJM Capacity Performance Auction," explaining that PJM had entered into a new capacity performance market and the effect on the City. She noted that this presentation would also be reviewed during the review of financial policies during the Legislative, Finance, and Administration Committee meeting scheduled for later in the evening.

Responding to Mr. Blakeman, Mrs. Mitchell stated that the contract between the City and Calpine would take effect when Units 1 and 2 are removed from the capacity list, which would take place in May 2017 which would be Power Year 2017/2018.

Referring to Page 4, Mrs. Mitchell noted that the PJM Capacity Market Overview was very technical and explained that the City bids its capacity in and also purchases capacity through PJM, so there is a price differential between what goes in and out.

Mrs. Mitchell stated that PJM's new capacity performance product was implemented for Delivery Year (DY) 2018/2019. She noted that there was a partial implementation with partial-market "transition auctions" for DY 2016/2017 and DY 2017/2018, and the City had already been through those transitional auctions.

Mr. Blakeman asked what the likelihood was of the City continuing to maintain a profit margin. In response, Mrs. Mitchell explained that the City would continue to maintain a profit as long as the City does not get penalties. She stated that Staff was redoing the City's five-year forecast to include these new prices and all of these changes.

Referring to Page 6, Mrs. Mitchell reminded members that the City incurred a penalty of $562,994 for generation short-falls during February 2015 peak hours and the North American Energy Services (NAES) performance incentive was decreased by $423,000 as a result of this inability to run.

Mr. Blakeman noted that the Comprehensive Annual Financial Report (CAFR) listed 191 MW of operating capacity and questioned why the City was only using 175 MW. He stated that the CAFR changed in 2007 from 175 to 191. Responding, Mrs. Mitchell indicated that she would look into this matter.

Referring to Page 7, Mrs. Mitchell explained that the way a transitional auction works, if the City does not clear the auction, the old rules still apply. She stated that the City would be subject to the new rules in DY 2018/2019.

Mr. Blakeman, referring to Page 9, asked what a stop-loss limit was and how it would kick-in. In response, Mr. Harry Maloney, Electric Director, explained that PJM does not want to drive people that far into bankruptcy so they put a stop in place and once an entity reaches the limit, PJM will stop penalizing. He stated that it is a dollar cap.

Mrs. Mitchell reviewed the Capacity Revenue at Risk for Dover's 145 MW of Generation (DY 2018/19) on Page 10. She reminded members that in February of 2015 the City had a short-fall of 11.2 megawatts which resulted in a $562,000 penalty; however, under the new rules, the City would have a penalty between $5M and $7.5M for the same short-fall.

Mrs. Mitchell reviewed the list of Pro-Active Mitigation Measures on Page 11 and noted that the Calpine plant had put some restrictions on the gas line and made it more difficult for other generators to get gas. She informed members that the City had received good cooperation from both Eastern Shore and Chesapeake Utilities in getting gas and they will have what the City needs to start the units. Mrs. Mitchell stated that the City was very close to completing the transition of McKee 3 to oil but gas would still be needed to start the burners. She indicated that it might be a little higher cost, since the City might have to pay a premium for that gas but it would be much cheaper than what the City would pay in penalties.

Mr. Hutchison noted that the City was training staff and asked if staff was also reaching out to the City's larger customers to educate them on better ways for operation. Responding, Mrs. Mitchell stated that staff was talking to the City's large customers about their load profiles to determine how the City can help. She indicated that staff was examining many different ideas to determine how these customers and the City can help each other.

In response to Mr. Blakeman's question regarding the possibilities of expanding the Rate Stabilization Reserve account to lower the impact to electric customers, Mrs. Mitchell advised members that currently the reserve is a minimum of 3% and a maximum of 10%, and her recommendation was for a minimum of 10% and a maximum of 20%. She explained that the City usually gets income when generating, and as the City gets favorability and power supply the City puts the money in the Rate Stabilization Reserve. Mrs. Mitchell stated that she would never recommend a rate increase to fund a reserve.

Referring to Page 8, Ms. Stewart asked if the enhanced demand-side participation was from the City of Dover or the entire DPL South Zone. Responding, Mrs. Mitchell advised that the graph indicated when this change in the PJM regulations was implemented, noting her belief that it was the enhanced demand-side participation for the whole PJM grid.

In response to Ms. Stewart, Mrs. Mitchell stated that the City does not currently do anything for demand response. Mr. Maloney confirmed that the City does not do anything directly; however, through the Delaware Municipal Electric Corporation (DMEC) and CPower, the City's customers can participate in the PJM demand response. He indicated that a few of the City's large industrial customers participate in this program. Mr. Maloney explained that these customers will receive a phone call alert that they have a specific amount of time to reduce their load and then they share in the savings.

Mr. Blakeman asked if the City participates in the demand response program through the City's rate structure. Responding, Mr. Maloney stated that the City does not participate and is not involved in any of the money or the transactions. He advised that the customer releases the information and the City gives the information to the contractor, CPower.

Mr. Scott Koenig, City Manager, stated that Staff brought this forward as an informational item and to support some of the recommended changes to the financial policy, which will be discussed during the Legislative, Finance, and Administration Committee meeting scheduled for later in the evening.

He reiterated that the utility was changing and getting more complicated, which was leading the City to a more active and participatory management of the electric system, including the City's energy supply, its larger customers, being able to participate in the energy efficiency programs, how to replace capacity, behind the meter renewables, net metering, etc. Mr. Koenig stated that all of these things are playing a role as the City moves forward and these things equate to and influence either the City's power supply costs or the final electric rate costs to the City's customers.

Mr. Koenig stated that as the PJM grid and the electric utility become more complicated, timing is a big issue. For the City to be able to compete, the City has to be able to bring its units up quickly, know the status of the units, be able to maintain the units, have adequate reserves to pay potential penalties, etc.

Mr. Blakeman moved for adjournment, seconded by Mr. Neil and unanimously carried.

Meeting adjourned at 5:40 p.m.

James L. Hutchison, Sr.
Chairman

JLH/TM/dd
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