

CITY COUNCIL
BUSINESS AND COMMUNITY AFFAIRS COMMITTEE MINUTES

October 2, 2014

The City Council Business and Community Affairs Committee of the City of Norman, Cleveland County, State of Oklahoma, met at 5:00 p.m. in the Municipal Building Conference Room located at 201 West Gray on the 2nd day of October, 2014, and notice and agenda of the meeting were posted in the Municipal Building at 201 West Gray and the Norman Public Library at 225 North Webster 48 hours prior to the beginning of the meeting.

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| PRESENT: | Councilmembers Castleberry, Lang, Quinn, and Chairman Heiple |
| ABSENT: | None |
| OTHERS PRESENT: | Mr. Phil Apple, Region Engineering Manager, Oklahoma Gas and Electric Company (OG&E) Mr. James W. Chappel, Community Affairs Manager, Oklahoma Gas and Electric Company (OG&E) Mr. David Ruyle, Distribution Planning Manager, Oklahoma Gas and Electric Company (OG&E) Mr. Richard Smith, Lead Power Quality Engineer, Oklahoma Gas and Electric Company (OG&E) Mr. John Woods, Norman Chamber of Commerce Director |
| STAFF PRESENT: | Mr. Steve Lewis, City Manager Ms. Leah Messner, Assistant City Attorney Ms. Syndi Runyon, Administrative Technician IV |

Item 1, being:

DISCUSSION REGARDING ELECTRICAL SERVICE IN THE DOWNTOWN AREA.

Mr. Steve Lewis, City Manager, said Mr. James Chappel, Community Affairs Manager for Oklahoma Gas and Electric Company (OG&E), has prepared information for the Committee regarding short-term and long-term improvements to the downtown electric grid system. He said in one of the issues discussed at the August 2014, Council Retreat was continued concern about problems with the downtown grid and that impact to local businesses. During the Retreat, Council directed Staff to make this a top priority for Committee discussion. He said some of the issues the downtown area continues to experience are power outages, power surges, loss of productivity to downtown businesses, and impact on equipment such as refrigeration units, cooling units, elevators, technical equipment, and degradation of information technology. He said over the last number of years, OG&E has enumerated different reasons for the outages which vary from storms, downed trees, circuit failures, transformer problems, and the proverbial birds and squirrels. He said representatives from OG&E are here to update the Committee on their plan of action for the downtown area.

Chairman Heiple said he would like to hear about the options available for stopping the surges, outages, equipment loss, birds/squirrels, and business frustration downtown.

Mr. Chappel said OG&E supports economic development and does not want to be a top priority of the Committee. OG&E would like to be a plus to the Committee and not a discussion item. He said Mr. David Ruhle, Distribution Planning Manager for OG&E, will be talking about long-term solutions regarding the downtown substations, which at some point will not be able to carry the load in the foreseen future. He said Mr. Phil Apple, Region Engineering Manager for OG&E, will talk about what OG&E is currently doing, has done, and is getting ready to do in the next few months that will take care of some of the issues plaguing the downtown area.

Mr. Ruhle highlighted long-term plans for the downtown area. He said there are a group of four substations around downtown. The substation on Boyd Street has about 60 megawatts (mgw) of capacity, which can be doubled to 120 mgw; the substation on Stubbeman Avenue was recently upgraded to 60 mgw and can be upgraded to 120 mgw; the Millenium substation on East Rock Creek Road was recently constructed and has 20 mgw and will ultimately grow to 120 mgw; and the Wilkinson substation needs a few modifications in order to upgrade to 120 mgw. He said the substation downtown at Alameda Avenue and Porter Avenue will be taken out in the future because it is small and a new substation would need

3 1/2 to 4 acres of land with a 138,000 volt line attached. OG&E decided many years ago not to try to bring 138,000 volt line downtown because there is not enough room to do that. He said there is not enough land downtown to build a new substation and the amount of right-of-way it would take to bring in a 138,000 volt line would be like trying to build a four lane road where property owners are hesitant to give up right-of-way. Instead, OG&E will build transmission lines around the outside of the downtown area and ultimately feed the downtown area from the four substations. He said this would provide plenty of capacity in the long-term.

Chairman Heiple asked what date the substation might be taken out and Mr. Ruhle said it depends on growth. He said the substation has room for growth and is good for up to 10,000 kilo-volt amp (kva) and is currently using 8,000 kva. He said there are various circuits and feeder lines that come into the downtown area and incrementally, OG&E will begin nipping away at downtown until circuits and feeder lines have been moved from the core area to surrounding substations.

Chairman Heiple said, as far as growth, does that mean the City has to have a certain amount of people, usage, turn lights on all the time, etc.? Mr. Ruhle said he makes sure there is enough capacity and voltage in the neighborhood, which means there are big enough wires to feed downtown from the substations. Mr. Ruhle said OG&E has a plan for long-term growth.

Mr. Lewis asked about the newest substations and Mr. Ruhle said the newest substation is the Millennium and it is in service. Mr. Lewis asked what outlying substations expected to feed downtown are yet to be built and Mr. Ruhle said they are all built and are all expandable.

Mr. Lewis asked if the downtown substation is the source of all the problems and Mr. Chappel said not all of the problems. Councilmember Castleberry asked what the problem is if there is enough capacity in the downtown substation. Chairman Heiple said there is a high level of frustration among businesses because the outages and surges are destroying equipment.

Mr. Apple said OG&E recently installed new technology, a Swietzer Relay System, at the Wilkinson substation that allows OG&E to pinpoint problems. He said primary problems within downtown include squirrels, downed trees, transformers blowing up, unground lines going bad, etc. He said these problems are isolated, but it is frustrating to fix one problem only to have another problem occur. There is no doubt that some of the lines are old and have a fair amount of exposure. OG&E's plans are multi-faceted that include the relay recently installed at the Wilkinson substation, which is already helping. He said OG&E recently installed a teleruptor just north of the Norman substation, which isolates the load on the circuit away from all the risk just north of it. OG&E has ordered nine single re-closers or "trip savers" to help isolate downtown from a lot of its exposure. He said trip savers are basically a three-shot fuse that catches faults quickly. When there is a fault such as a car hitting a pole on the load side of the trip saver the fuse will blow and reclose and no-one in the downtown area would see the problem. Mr. Chappel asked if downtown would see a "blink" with those and Mr. Apple said there should not be a blink if the trip savers are coordinated properly; however, they are so popular they are on backorder. Chairman Heiple asked how much the trip savers cost and Mr. Apple said approximately \$49,000 for nine. Mr. Chappel said the Swietzer Relay System costs \$50,000 and teleruptors are \$50,000.

Mr. Apple said OG&E plans to check everything downtown that consists of checking connections with thermal cameras to make sure there is wildlife protection on all bushings, insulated jumpers on all devices, and proper lightening protection on all circuits. Mr. Chappel said electric wires have to be spread apart enough where a squirrel or bird cannot get between them and in the downtown area, birds build nests, which expand their width and disturb the circuits. He said it is time to aggressively redo some of the wildlife protection precautions. He said it disturbs him to say OG&E has not gotten better at addressing issues downtown because downtown business owners have his cell number and he hears from them when things happen and feels their pain. He felt OG&E has done better on extended outages and asked the Committee if they agreed and Mr. Lewis said, in his opinion, things are not getting better.

Mr. Lewis asked if the downtown substation was one of the worst performing circuits in the Oklahoma City area and Mr. Richard Smith, Lead Power Quality Engineer for OG&E, said OG&E maintains numbers on the frequency and duration of outages on 1,100 different circuits across a 30,000 square mile territory and the Norman downtown circuit has not come close to being the worst performing. He said it has an average performance and Mr. Lewis asked if OG&E is ok with it being average. Mr. Smith said no, OG&E continues to look at what causes the outages, what can be done, but there is a big difference between reliability and interrupted power. He said the system is built to be reliable, but not

uninterruptible. He said the trip savers generate “blinks” so the very thing that will improve the reliability on the one hand is going to cause somebody to have a blink causing clocks to flash and computers to go down. Mr. Lewis said he can document 15 separate outages in the downtown City Hall Complex since 2011. Some of those have been a few minutes and some have been up to four hours. Mr. Chappel said that is not ok and the thing that troubles OG&E about this issue is problems are consistently occurring in a four or five block area and is creating a special problem for OG&E. Mr. Smith said in 2011, squirrels locked out the substation twice in one summer, but that has not happened since. He said on that particular problem, OG&E used additional steel to limit wildlife access. He said the trip savers will reduce the risk factor of squirrels tripping the circuits. He said OG&E has also initiated pro-active underground cable replacement in Norman over the past five years. He said there are programs in place to stay ahead of issues, but recently a private contractor pulled a tree across the line that serves the downtown substation locking out the substation. He said OG&E cannot prevent those types of problems and cannot prevent problems associated with acts of mother nature. That is why the system is 99.9% reliable and that is what it is expected to be on average. Mr. Apple said OG&E has better tools at detecting where faults lie and that helps isolate and prevent future problems.

Mr. Lewis said OG&E has a legal responsibility to rate payers to prepare improvement plans to upgrade sections that continually have issues. He said he would like see OG&E’s improvement plan for downtown and challenged OG&E to put forth a plan in the community and educate the community as well as business leaders as to what OG&E is doing. He said if people do not know what is happening, they conjure up things. Mr. Apple said he did not have a problem with putting something in writing for Mr. Chappel to present to the Committee and will do his best to follow a good timeline on that. Mr. Lewis said he is also interested in the other improvements OG&E have made and said OG&E needs to capitalize on that.

Chairman Heiple said he would like to see a dollar amount on what has been done, what will be done, and target dates in the plan. He said if OG&E was going to commit \$500,000 to this project, then the Chamber of Commerce and businesses could be told they do not have to worry about their power going out or at least be told that OG&E is working diligently towards that goal.

Councilmember Quinn asked what effect taking out the downtown substation will have on the type of outages the downtown area is currently experiencing. He asked if the wiring is newer and more up-to-date on the four surrounding substations than it is downtown. Mr. Apple said nothing will help the downtown issues regarding reliability until the other problems have been solved. Mr. Chappel said installing trip saving devices, insulating, spacing, wildlife protection, etc., needs to be an ongoing project and OG&E needs to step up on resolving issues since this is such a small area that has continual waves of good and bad behavior.

Mr. Lewis said the City has invested \$500,000 on replacing ruined equipment and purchasing generators just to work around this issue. While he appreciates OG&E talking about \$45,000, \$50,000, and \$60,000, the City is talking \$500,000. He said many businesses in the downtown area have had to install separate systems to protect their equipment or just to continue doing business and staying open. Councilmember Castleberry said this is an expenditure for every single business downtown if they are prudent because they have to buy a backup generator whether they have 600 square feet of 10,000 square feet. He said a business cannot prudently operate in downtown Norman without a backup generator and that is not in case of a storm that is just for reliability. He said why would a business want to locate in downtown Norman if they knew the power is not reliable and they would have to buy a backup generator. He said Norman cannot revitalize downtown without infrastructure whether that infrastructure is roads or power and that is what the Committee is trying to work with OG&E to accomplish.

Mr. Chappel said, regarding the downtown substation, OG&E is constrained with land so a new substation cannot be built. He said OG&E is further constrained by alleys and space to operate in so OG&E has to make what they currently have work. He said if OG&E had a clean slate, they would rebuild things differently than they are built today. He said the new structures need ten feet of clearance among other things and there is no way to get that downtown. OG&E has to figure out ways to get the spacing, get the insulation, and get the protection from the pests in other ways. He said OG&E representatives are lobbying to get things done in Norman.

Chairman Heiple asked how much it would cost OG&E to get uninterrupted power downtown and how much would it cost to get really high reliability. Mr. Smith said uninterrupted power is physically impossible on a public utility scale. He said the average customer experiences two hours of interrupted power each year on average and there are fifteen to twenty blinks per year on average. Chairman Heiple said somebody knows what it costs to take care of Norman downtown and Mr. Smith said there are too many uncertainties with weather, accidents, pests, etc., although underground circuits have fewer issues.

Chairman Heiple asked how downtown Norman could acquire the reliability that is afforded to west Norman or I-35 and how much would that cost. Mr. Ruhle said OG&E is making steps and are getting really close to that already, but has not found the magic bullet. Mr. Smith said OG&E is trying to find the root cause of the problems and address those.

Councilmember Castleberry asked if OG&E could put together a timeline of what they plan to do and when they plan on doing that so the Committee can review that. Mr. Apple said yes, that can be done and he will include projections on how much improvement will be seen. Councilmember Lang said he assumes Norman is divided into grids and asked if that information could include a comparison table of all sections of Norman. He asked when a blink becomes a surge. Mr. Smith said if an outage is less than five minutes it is considered momentary, but there are various shades since a blink can be a flicker. He said once a trip saver is tripped, it will wait about five seconds then trip off again then wait ten seconds and reclose, but if the problem is still there it may trip again for twenty seconds. The vast majority of triggers go through one cycle, but it can go three cycles. If the issue is still there the system basically says, "I am off" until somebody comes and finds the problem. Councilmember Lang said downtown is suffering significantly more than other areas of Norman and asked if OG&E has comparison numbers that depicts what is happening in other areas of Norman.

Mayor Rosenthal said an improvement plan would give the Committee a baseline for monitoring improvements because how else will the Committee know things are getting better unless there is an established baseline to compare against a timeline. She agreed with Councilmember Castleberry that the City wants downtown to be thriving and attract new businesses, but the City is losing businesses because their refrigerator blows up or they cannot afford to replace another piece of computer equipment. Councilmember Lang said it would be hard to tell a business downtown that they are the same as I-35 and Robinson. Mayor Rosenthal said it is only through improvement that businesses can be assured to make investment downtown.

Chairman Heiple said he did not want an improvement plan with averages because averages can be hauntingly misleading so he would like actual raw numbers as opposed to "averages." He said the Committee wants a tool to compare where downtown ranks because the Committee does want downtown Norman to be successful and in the absence of having clean power, that cannot be done.

Mr. Lewis felt OG&E would not want this issue coming up during their franchise renewal. Mr. Lewis said the Committee is not here to discuss the whole system for Norman because OG&E has been great in helping out during disasters or getting power when power is needed immediately at the Water Treatment Plant or Water Reclamation Plant. He said most of the Committee's grievances are aimed at downtown. Mr. Ruhle said it seems like there is a black cloud over a small area and there does not seem to be a single root cause. He said looking at every single pole with thermal imaging will be a good start for finding problems and getting those addressed.

Mr. Chappel said to leave the Committee with some assurance that OG&E feels confident that a positive, noticeable impact will be seen in the downtown area soon.

Chairman Heiple asked if the improvement plan can be sent to the City Manager within two weeks and Mr. Apple said yes, he could commit to that. He said the plan will include a timeline, expected results, estimated revenues, and costs invested.

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Mr. Chappel assured the Committee that local businesses are lobbying OG&E corporate offices so it is not like OG&E is unaware of the downtown issues. He wants businesses to know that OG&E is visible and accessible.

Items submitted for the record

1. Memorandum dated September 25, 2014, from Terry Floyd, Development Coordinator, through Steve Lewis, City Manager, to Council Business and Community Affairs Committee
2. Map of Oklahoma Gas and Electric Company (OG&E) substations in Downtown Norman

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Item 2, being:

MISCELLANEOUS PUBLIC COMMENTS.

None

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The meeting adjourned at 5:55 a.m.