

Special Called Meeting  
May 23, 2023

Members Present: Mayor Buddy Duke, members Terry McClain, Walter Cowart and Jody Greene.  
Members Greg Paige and Celestine Hayes were not in attendance.

Others Present: City Manager Mark Barber, City Clerk Rhonda Rowe, Electric Supt. Jeff Baker, Mike Leverett with Energy Economics Consulting and a member of the press.

Invocation was given by Councilman McClain.

Pledge of Allegiance

Electrical Service Pricing (Blockstream): City Manager Mark Barber advised the council that Mike Leverett with Energy Economics Consulting is here to discuss Blockstream and to help us understand pricing and some restructured pricing. Right now we are in our 3<sup>rd</sup> amendment and need to discuss amendment #4. Mike Leverett began by clarifying that we are here to talk about amendment #4; however, this is actually the only 3<sup>rd</sup> amendment that concerns pricing. He began by stating that he walked into this mid-way and was not part of the original formation of the project. He worked with John Hewitt, who has done the rate work here for years; John has retired and he took over John's clients. He's been working with the City of Adel and others for about 4 years. When this opportunity was brought to the City of Adel the expectation was that when they got completely built out, they would be at 275MW and running at a very high load factor, which is a huge load. The City of Adel's peak demand is roughly about 30MW so you are talking about someone who is 10 fold bigger than your entire system. John Hewitt got six other municipals to join with Adel to serve the load. Everyone has 1/7<sup>th</sup> so that when it got really big, it wouldn't overwhelm one system. In order to do that, they have to build a substation. They have not filed for that yet, but long term, they claim that is their plan. Where they are located, there is enough capacity to serve up to 40 MW. They did reach that around July 2022. The original pricing deal had a table with the NYMEX (New York Mercantile Exchange) price. That particular price was set when they signed the contract. As you go through and prices change you would index it to that table. That worked pretty well but the problem was you set the price at the beginning of the month based on what cleared and if something happened during the month, it wouldn't be reflective of the real cost. That actually happened in 2022; however, we had already changed the pricing so we weren't affected. In 2022 at the beginning of the month the NYMEX would close and "x" would be the price. Every month it would end up being higher, and continued getting higher and higher. Thankfully we had already changed the pricing, but that is a way we could have gotten "burned" if you will. It could also go the other way. As these guys kept getting bigger, we wanted to reduce the risk and make sure the pricing reflected the best we could what our costs were. Mike Leverett developed the amendment 3 rate which went into effect October 2021. It done away with that table and began billing based on a published price by a company called Platts. Platts has pricing known as the "Platts Into-Southern Power Price", which is a daily price. It was designed to be a proxy for the actual cost. It wasn't exact but it is about a 96% correlation based on historical data. The problem with that structure was Blockstream didn't have any clarity as to what the pricing was going to be. They received a bill at the end of the month and in 2022 prices were going up and up. It was a function of natural gas prices that went from about \$3.00 to

\$7.00 and \$8.00 by the end of the year. They would get a bill for the past month and it would be a lot higher than they expected and then the next month it would be even higher. They were having trouble maintaining what their cost was going to be and they could not get clarity as to what the price was until the end of the month. In Sept of 2022 they ended up shutting down their load except for a few fans and moving their computers to Texas. The reason being is that Texas has a model where they can tell what their prices are going to be every hour before the hour so they can determine when they want to run, etc. They want to come back up but they need to have some type of price clarity so they don't get hit with these extreme prices and know what's going on. In Sept 2022 they basically shut down and we started working on this amendment #4. It is very, very similar to amendment #3 with two changes. We changed the demand charge (right now there is one demand \$5 charge which is designed to recover their power supply capacity we have to procure on their behalf and the transmission. He has broken that out into 2 capacity components instead of one to reflect the power supply and the transmission. Prices have been going up so it's now \$6.25 combination, which is reflective of the prices we're seeing. There is a clause that includes if the prices continue, we reserve the right to adjust them accordingly. The second change, and the major change, is we propose going away from the Into-So Co published price which they don't see until the end of the month and MEAG has set up a data portal where they can go out and see the actual cost the city will incur and then charge them. There is a mark-up and an add-on on top of that. Blockstream can see the prices and then respond. For example, if prices are \$20 they will run. If they jumped to \$2000 they want to know that price and shut down. They don't want to see that bill at the end of the month and say "if we had known that we wouldn't have been running". That's the main difference between the new rate under amendment 4 and the current rate being billed under amendment 3. It reflects the actual cost you incur and bills them for that actual cost. It actually takes more risk off the cities because now you are billing them exactly. Yes, amendment #3 had that 96% correlation but there is no guarantee there might be some months where that might get out of whack. This way we have further reduced the risk to the cities, it's a lower risk rate and the mark ups are still the same that we have in the current contract. We designed a rate that takes away a lot of the volatility and risk off of the cities. The other thing about the amendment 4 is that, and it goes back to something in amendment #3, which had some unintended consequences. When he was designing the rate in amendment #3, he was trying to be sure he looked after the city's interest and done too good of a job with that because he didn't expect them to shut down. Within the rate, we had something called a load factor requirement that they had to purchase so many kilowatt hours based on their past highest demand over the past 12 months. Between the north Adel site, the south Adel site and the site in Fitzgerald they got up to 60 MW, which is 60,000 kW down to 150-200 kW. They were not consuming 60,000 kW every hour but we were billing them as if they were because that is what was in the contract. We ended up billing them for tons of power that the cities never had to buy. In trying to come up with something that's reasonable and fair, we came up with a proposal to remove the load factor requirement and bill them for what they actually used and the fact that the \$5 demand charge is designed to cover power supply and transmission. The proposal is to bill them for Sept '22 through Dec '22 at a fraction of that to reflect the fact that we did not have any transmission costs incurred. There was that component in the \$5 charge that we did not incur and that is what we have done with amendment 4 is separate those two components. There is still ample margin built in for all the cities even with the proposed rate. It's very fair but still very generous to the cities with the rate amendment we are proposing. Starting January 1, 2023, we would back bill them under the new amendment 4 rate, so we're kind of starting with a new slate on January 1<sup>st</sup>. One of the main reasons we're doing that is we worked with MEAG to

not have to procure capacity for Blockstream for 2023, so we have not bought any capacity for Blockstream for 2023 with the understanding that if they come on-line we would go out and procure that capacity. You have to procure capacity on an annual basis so we can do a clean reset. On the actual rate itself, there is a monthly base charge, it's the same on both amendment 3 and 4; there's a feeder charge, it's the same. The only real changes are the energy and demand charges he talked about. That is the history and why we are here. If we bill under current rates of amendment 3, its just punitive to the tune of millions of dollars. Again, because we are charging them as if they're using 60,000 kW every hour when they're really using 200. Mark Barber asked him to touch on the use of the term "penalty". Mike stated that he's not sure how that term was used in the past but he thinks it had to do with the load factor requirement. Again, the amount of the energy these guys actually used was 150,000-200,000 kW per month. Under the load factor requirement, we would bill them for 40,000,000 kW. So they used 200,000 and we bill them for 40,000,000. That's where the disconnect is. I designed it to protect the city but never contemplated this would happen. It was not a penalty, just a requirement he put in to protect the city, like I said just done too good of a job because its not even close to what your costs were. I think don't think penalty is an accurate description at all, he would call it punitive. Mayor Duke asked to confirm the amount consumed. Mike stated they consumed 150,000-200,000 each month. That is what we paid MEAG for. Under the load factor requirement, we would turn around and bill them as if they had used 40,000,000. The load factor was 92%. It was also based on their peak demand so it was as if they were still using that when obviously they were not. Amendment 4 is designed to change the rate structure so they get a transparent pricing, so they see the price beforehand so they can make decisions, otherwise, they're using energy without having all the information and also to address the unintended consequences of charging them for 40,000,000 kW when they've only used 200,000 kW. Will also do a reset as of January 1, 2023. Mark Barber confirmed that the margins are still where they need to be? Mike advised yes, and as they start running, the margins will be back to being healthy. Mayor Duke asked if this would be designed to work for other similar energy users across the board? He advised, yes, it should work for other crypto users as well. Councilman McClain asked when this would take effect if it's approved? Currently, 5 of the 7 cities have already approved it. The 6<sup>th</sup> city has a separate utility board which has already approved it so it's just waiting to go before the council for their approval. Adel would be the final city. It will take effect as soon as everything is approved and then he will back bill them to be sure everything is up-to-date with Amendment 4 and get everything caught up and go forward. It will be retroactive to January 1, 2023. Councilman McClain asked about the amount billed before that, will it be changed or stay the same? He was advised under the amendment it would be changed to a more reasonable amount. Councilman Cowart asked if they are still operating in Texas now? As per Mr. Leverett, it is his understanding that yes, they are. He asked if the Texas outfit guarantees the pricing? He stated we're not guaranteeing the pricing under amendment 4, we're just showing this is what our prices are and this is what you are going to pay plus the mark-up. That's a similar structure to what they have out there but in Texas they have what is called an RTO ISO market so they'll see the prices every hour which is a very similar concept to what we're proposing here. Mayor Duke asked if there have been any hurdles with the other cities? They are paying for their 1/7<sup>th</sup> of the costs incurred so they have that expense. Adel is billing/collecting the revenue and then distributing their 1/7<sup>th</sup> to them. Mayor Duke then clarified with city staff that there has not been delays with billings to Blockstream as there has been with residents. He was advised that was correct; since they are billed an estimated amount for the future month and then a true-up on the past month, it has to be prepared through customized billing; that billing is emailed to us and then has been forwarded on to Blockstream.

Mayor Duke then asked if they were behind, caught up, or true-up? Mr. Leverett advised we would have to do a true-up; he would have to go back and see what they've been billed and true-it up as per the amendment. He knows they will owe but just doesn't know the magnitude. It certainly isn't a huge amount. Mayor Duke asked if it gets passed, what would be the timeline in getting everything back in line? Mike advised he will get the bills out ASAP at that point so he would say mid-June. Someone can then express the urgency to get that paid and then we can move forward from there. Last he heard they were wanting to start back June 1<sup>st</sup> but he hasn't heard an update on where that stands. Mark Barber noted this meeting tonight is not about them starting back up but is only about pricing in the event they do. Mayor Duke questioned if the mark-up or the margin stays the same? Mr. Leverett stated yes, the mark-up on the energy stays the same, but not the margin. If they use more, we make more. The dollars per MWh, cents per kwh mark-up is the same on both amendments. We do have a nice mark-up. Mayor Duke stated he just wanted everyone to understand they are not getting a lower price because they're pricing is based on a mark-up of what the city is purchasing it for. The mark-up is the same in amendment 4 as what is in amendment 3. Councilman Greene stated the main thing this will do is charge them for what they use, not charging them for what they never used to start with. Mr. Leverett stated that is correct, we want to true-up to what they actually used without this load factor requirement. Going forward, the load factor requirement is not in the new rate. There were some times around Christmas Eve when prices got really, really high. They probably would have shut down if they had not already. Councilman McClain stated he doesn't understand why they would have agreed to a load factor like they were having to pay for? Mr. Leverett stated he didn't know how much analysis they done. It was in 2021 and at that time the blockchain industry was doing very well and prices were cheap; the prices of power and gas were in the 3 cents range and by the fall they had gotten to 10, 12 and 14 cents. They probably never saw this coming that they would shut down. Mr. McClain confirmed as to whether they had agreed to it like it was set up? Mr. Leverett replied that he couldn't say they agreed to it; we changed the rate, got the amendment done and told them what the rate would be. There was no formal approval by them. We did send it to them and they did comment to us. We basically informed them of what we were doing. Mr. McClain asked if what he was hearing is that they feel the amount they were sent was not fair and they were overbilled? Mr. Leverett stated they feel like paying for 40,000,000 kW hours when they used 200,000 is excessive. Mayor Duke stated the bottom line is they just didn't use it. Mr. Leverett added it would be like you said you were going to buy 1,000,000 gallons of gas but only used 100, but we still charged for 1,000,000. Mayor Duke stated it was not a loss to the city because it didn't cost us anything because the energy itself was never sold. When you have a \$4M monthly bill and put 8% sales tax on that with 4% going back to the county, it has been tremendous at the end of the day. Of course, the city received its portion of the margin. He asked if Mr. Leverett had any thoughts of the future of the bitcoin industry. Mr. Leverett said he certainly doesn't understand bitcoin but it's the price of electricity and what these cryptocurrencies are worth. As he understands it, there's an algorithm that they're running and the algorithm takes electricity to run, so in order to mine or create these cryptocurrencies they have to use electricity. If the price of the cryptocurrency stays high they can justify paying the electricity cost. If it goes down, they have to ask if its worth the cost of mining. Mayor Duke asked if there were any other questions and stated that if the members think of any other questions they can let Mr. Barber know and he could pass that on to Mr. Leverett. Mayor Duke apologized that the other members could not be here. Mark Barber asked Mr. Leverett if the other cities that had passed it going back with the structure we talked about tonight? When Mr. Barber brings it to our council at the next meeting, will it be for the new structure and going

back to revisit to capture the other months? Mr. Leverett stated the other cities approved the Amendment #4 just as it was sent to them. They approved the retro billing and going forward. They accepted is as presented.

There was no further discussion and the meeting was adjourned.

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Rhonda P. Rowe, City Clerk

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Luther L. Duke III, Mayor

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