ITEM #:	**37**
DATE:	**11-18-25**
DEPT:	**ELEC**

COUNCIL ACTION FORM

SUBJECT: **JANUARY - JUNE 2026 NATURAL GAS SUPPLY FOR ELECTRIC**

BACKGROUND:

The two boilers at the Power Plant are primarily fired by natural gas. The natural gas, along with refuse-derived fuel (RDF), are combusted to generate electricity. When in operation, Unit #7 typically combusts 8,000 MMBtu of natural gas per day, while Unit #8 typically combusts 12,000 MMBtu of natural gas per day.

On October 15, 2015, Macquarie Energy LLC was awarded a 5-year fixed price contract for the purchase of 12,000 MMBtu/day of natural gas for Electric Services. Subsequently, a 3-year extension was approved, followed by two 1-year extensions, which brought contract period through December 31, 2025. The contract has created efficiency, flexibility, and affordability in the purchase of a valuable commodity, ensuring that the City has reliable service while creating stable generation costs.

With the current contract expiring on December 31, 2025, City staff must secure a price and add additional supply to the existing contract in the next few months. There are several aspects of a natural gas contract extension which need to be explained further. These include the price volatility, impact on electric rates, and impacts to the Resource Recovery utility.

The challenge in arranging a contract extension or soliciting bids for a new gas contract is determining the price at which to commit. In the natural gas market, quoted prices expire within a 24-hour period, which is less time than is necessary to provide notice of a City Council meeting and approve the contract.

When staff negotiated the original contract, the process was handled similarly to the sale of the City's bonds. The Council Action Form did not have prices, nor did it identify the preferred supplier. Bidders faxed their prices to staff hours before the City Council meeting and a summary report was handed out during the Council meeting where a decision was made. Although this approach provides competitive pricing between several suppliers at a single point in time, it may lock the City into a price that would have been much lower if solicited at a different time of the year. **For the remainder of the 2025/26 fiscal year, staff is proposing to repeat the method used in 2023 and 2024, which allowed the Director of Electric Services to obligate the City to purchase natural gas at or below the previously Council-authorized cap.**

The current contract has a fixed price for natural gas set at $3 .57 per MMBtu. At the time of this writing, price estimates for calendar year 2026 show natural gas futures in the $4.29 MMBtu range. The prices are higher than the current contract for a variety of reasons: customer demand, supply constraints, production cost increases, the uncertainty related to the Russia-Ukraine war, weather forecasts, and other factors.

As these prices fluctuate between Council meetings, staff is requesting the authority to commit the City to extensions as short as a month, at fixed prices and fill in small incremental needs with daily spot-priced purchases. The goal is to avoid energy cost

increases to electric customers due to high natural gas prices, but continue to purchase gas to burn refuse derived fuel. At current natural gas contract prices, keeping cost contained is dependent on the length of the contract, market timing, and the amount of gas purchased.

It is important to note that the daily gas allotment, if unused by the Electric utility due to scheduled or unscheduled outages, can be sold back to the market at spot prices. At times when the gas can be sold back and spot prices are high, this can be advantageous to the Electric utility. However, if the spot prices are very low, then the gas must be sold by the Electric utility to the market at a loss.

IMPACT TO ELECTRIC CUSTOMER BILLS:

The natural gas purchased by Electric represents more than 20% of the overall Electric utility budget. These natural gas fuel purchases (and sales, if they occur), along with the cost of purchased power from the market (and sales to the market) are summed monthly on a rolling 12-month basis and are used to develop an Energy Cost Adjustment (ECA). The ECA can be either positive or negative and is an adjustment to the electric rates adopted by the City Council, applied to customers' bills each month. The more the utility pays for natural gas, the higher the cost for electricity becomes.

The approved FY 2025/26 operating budget includes $17,600,000 for the purchase of natural gas, transportation, gas management and related services to operate the Power Plant. The existing gas contract through calendar year 2025 plus yearly transportation costs $10,600,000. This leaves roughly $7,000,000 to cover the remaining natural gas purchases needed from January 2026 to June 2026. If staff is able to procure natural gas for less than $7,000,000 the savings is passed back to the electric customers through the Energy Cost Adjustment. Likewise, if natural gas costs more than $7,000,000, electric customers will pay more on their energy bill.

Also under consideration is the long-term life of Units #7 and #8. The continued burning of today's RDF with high plastic concentration is quickly destroying the boilers. Staff believes that by 2027, Unit #7 will have little life remaining. The City's generation resource plan assumes that Unit #8 will have 10+ years of life remaining after RDF is discontinued. To create a higher level of success, Unit #7 has become the primary unit for burning RDF. It may be possible to return burning RDF in Unit #8 in calendar year 2026 if plastics can be removed from the waste stream used to create RDF. With plans for curbside recycling starting by summer 2026, this may be possible. It is worth noting that burning any RDF in Unit #8 going forward will decrease the life of the boiler and cause increased maintenance costs. **If either unit is prematurely retired due to the deterioration caused by burning RDF, the utility is subject to significant financial penalties for lacking available generating capacity until the replacement capacity can be constructed and brought online.**

IMPACT TO RESOURCE RECOVERY/HAULERS/BOONE COUNTY LANDFILL:

The 12,000 MMBtu of natural gas per day that is currently procured during the non-winter months is sufficient to operate the Power Plant's Unit #8. This larger unit can consume approximately 30,000 tons of RDF per year if RDF is available and the unit is operating continually. Unit #7 consumes up to 8,000 MMBtu/day which would consume approximately

24,000 tons/year of RDF.

Historically, Unit #8 is relied upon to operate during the non-winter months because it is able to dispose of RDF at a faster pace than Unit #7. If Unit #7 is operating, the volume of RDF produced oftentimes outpaces the ability to burn it all, resulting in periods where Resource Recovery is unable to process all of the MSW which would result in additional material being diverted to the Boone County Landfill (BCL). Typically, this diversion is handled by instructing the haulers to transport MSW directly to the Boone County Landfill.

If haulers are diverted, there are a variety of impacts: First, although haulers save $5.50/ton on tipping fee costs at the Boone County Landfill compared to Resource Recovery, they must drive longer distances, resulting in higher labor and fuel costs. Second, the additional material being sent to the Boone County Landfill places additional pressure on the landfill operation (both in terms of using available capacity and the additional staffing the landfill needs to arrange to handle the influx of Story County garbage trucks). Third, recyclable material is not being removed from the solid waste through processing before it is landfilled.

Additionally, hauler diversions result in losses of revenue for the Resource Recovery operation since tipping fees are not being collected, and recyclable materials are not being sold. There is no change in revenue from RDF sales, as Electric pays a flat fee regardless of the tonnage of RDF produced. Although there is less expense for Resource Recovery since it is not processing (less electricity and maintenance expenses), the fixed costs remain for the operation, and therefore the overall impact to the Resource Recovery utility can be significant.

ALTERNATIVES:

There are several alternative strategies that could be pursued to purchase the natural gas, each of which has different advantages and disadvantages. Under Alternatives 1, 2, and 4, the City Council would authorize staff to approve amendments to the contract with Macquarie Energy LLC, Houston, TX, to extend the existing natural gas supply contract for a term of not more than six months in monthly or seasonal increments, for the gas quantities described in each alternative. Alternative 3 is a blend of Alternative 1 and 2 which relies on purchasing both firm and spot priced gas.

If staff is authorized to approve such amendments, staff would then report back to the City Council after each amendment has been agreed to by staff. The report would include staff's estimates of cost impacts to the Electric customers and Resource Recovery Utility. The alternatives are:

ALTERNATIVE # 1: Purchase 8,000 MMBtu/day and divert haulers directly to Boone County Landfill approximately 2 days/week

In this option, enough gas would be purchased to guarantee the continual operation of Unit #7. This would allow approximately 24,000 tons of RDF to be consumed by the Power Plant, at a minimum. **This reduction in RDF throughput is approximately 30 tons per day during the months of April - June. The additional tons not consumed would result in garbage haulers being diverted to the landfill when the tipping floor and/or storage bin become full. These diversions would have the negative impacts to the haulers, Boone County Landfill, and the Resource Recovery operation as described earlier in this report.**

If the 8,000 MMBtu/day could be secured at the anticipated average price of $4.25/MMBtu, the

Electric Fuels budget for natural gas would have approximately $800,000 remaining. This funding could be held in reserve and used in one of two ways:

- To purchase additional gas on the spot market when the pricing is favorable (most likely in summer months), increasing the amount of RDF that could be consumed from time to time. The result would be consumption of some greater amount of RDF and reduce the days haulers need to divert.

- Alternatively, if the long-term contract pricing for natural gas was to drop considerably, the $800,000 could be used to purchase an additional supply of up to 4,000 MMBtu/day for the April-June time period. However, staff does not have confidence that such a dramatic price drop is likely to occur.

This option results in the least potential for electric bill increases, but results in a greater amount of material being sent to the landfill, impacting the haulers, Resource Recovery, and Boone County.

ALTERNATIVE# 2: Purchase gas only on the spot market (no secure gas contract) and divert haulers directly to Boone County Landfill approximately 2 days/weekly

This option would eliminate the use of a secure contract and would require the daily gas needs to be purchased on the spot gas market. **The Electric Utility would be subject to considerable volatility in gas prices, particularly in the winter months when demand for gas is the highest.** It is not possible to project the potential cost to customers for this alternative.

Because of the time required to startup and shutdown the Electric boilers and Resource Recovery operation, it would not likely be feasible to plan for purchasing electricity on the market when electric grid prices are low and burning RDF only when electric grid prices are high. **Therefore, this option exposes the City to extreme volatility with little potential benefit. The only real benefit that can be seen today is that spot gas prices have remained below $3/MMBtu for the vast majority of days since early February 2023. To "cap this risk", staff would set a ceiling price (suggesting $6/MMBtu), where if the spot price was exceeded, gas would not be purchased for that day, and haulers would be diverted.**

If the 8,000 MMBtu/day could be secured on the spot market at an anticipated blended price of $3.25/MMBtu, the Electric Fuels budget for natural gas would have approximately $2,250,000 remaining. This funding could be held in reserve and used in one of two ways:

1. To purchase additional gas on the spot market when the pricing is favorable (most likely in summer months), increasing the amount of RDF that could be consumed from time to time. The result would be consumption of some greater amount of RDF and reduce the days haulers need to divert during those months.

2. Alternatively, if the long-term contract pricing for natural gas was to drop considerably, the $2,250,000 could be used to purchase an additional supply of up to 4,000 MMBtu/day for the April-June time period. However, staff does not have confidence that such a dramatic price drop is likely to occur.

With some increased risk, this option results in the greatest potential for stable electric bills

but results in a greater amount of material being sent to the landfill, impacting the haulers, Resource Recovery, and Boone County when spot gas exceeds $6/MMBtu.

ALTERNATIVE# 3: Blend Alternatives #1 and #2; securing enough firm gas to burn some RDF every day and increase burning when spot gas is more cost effective.

The purchasing strategy under this alternative would be to purchase 6,000 - 8,000 MMBtus on a firm basis in the winter. As spring and summer approach, the amount of firm gas that is purchased would be 4,000 MMBtu. Regardless of the season, if spot market pricing is favorable, additional gas could be purchased to increase the RDF consumption. This approach lowers the amount of firm gas the utility would have to sell in the event of an unplanned outage compared to the amount of firm gas purchased in the expiring contract. Lowering the amount of firm gas purchased minimizes the potential for selling unused gas at a loss during the seasons when spot gas is likely to be least costly.

ALTERNATIVE # 4: Purchase 8,000 MMBtu/day for January through March, and 12,000 MMBtu/day for April through June and divert haulers directly to Boone County Landfill approximately 2 days/week in winter months.

This option allows the seasonal differences in gas prices to be "smoothed out" or blended to arrive at a consistent price per MMBtu. This option could allow RDF to be burned at full capacity for April through June, and at reduced capacity for January through March. This is a similar approach to the expiring contract's structure.

The remaining amount in the natural gas fuels budget would allow for this gas to be purchased for the remainder of FY 2025/26 only if the price is at or below $3.87/MMBtu, which is considerably lower than contract prices available today. It is unlikely that prices will decrease to this level. **At a current price of $4.25/MMBtu, the fuels budget would need to be increased by $700,000 to lock in this quantity of natural gas. These costs would be passed to Ames electric customers through the energy cost adjustment, and in this example would represent a 1.5% increase in electric bills.**

If Council wishes to select this option, the Electric Services Director would request an updated cost, and Council would need to authorize an increase in the adjusted fuels budget (staff would propose authorizing staff to commit up to an additional $1,000,000 of spending without requiring further approval by the City Council).

With insufficient gas to consume all the RDF generated during January-March 2026 under this alternative, there are economic impacts to the Resource Recovery Utility with lost revenue from tipping fees during the winter months.

Since this alternative is the same as was adopted for calendar year 2025, Resource Recovery assumed this same alternative would be adopted for the next fiscal year and budgeted accordingly. If haulers are not allowed to tip their MSW approximately two days per week during the reduced-throughput winter months because of the high price of gas, the Resource Recovery utility would not incur a budget impact in FY 2025/26. However, haulers and the Boone County Landfill will continue to be impacted as a result of drive times to the landfill and increased material quantities disposed of there, respectively.

CITY MANAGER'S RECOMMENDED ACTION:

Over the past several years, the City has benefited from extremely advantageous guaranteed natural gas prices through the expiring long-term contract. Natural gas futures pricing is considerably higher than the expiring terms. Staff is concerned that the window for prices to drop is closing, and prices will again begin rising as winter weather and market uncertainty approach. There does not appear to be a risk-free option available to the City Council since the strategy with the least impact to electric customers, also has the highest impact to Resource Recovery System, and vice versa.

Staff believes the best strategy is Alternative No. 3 , which calls for a blended cost, and secures enough natural gas on contract to burn the majority of the RDF that could be consumed in a typical year. Under this alternative staff will continue to pursue options for reducing the volume of waste received through recycling and other waste diversion programs.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 3, thereby authorizing the Electric Director to approve an amendment to the contract with Macquerie Energy LLC, Houston, TX, to extend the existing natural gas supply contract for a term of not more than 6 months at prices to achieve a total cost of not more than $7,000,000.