



AGENDA ITEM SUMMARY

District Impacted

- ☐ 1 = Wolosin
- ☐ 2 = Woolard
- ☐ 3 = Scott
- ☐ 4 = Boddie
- ☐ 5 = Macaluso
- ☒ All

Agenda Date

March 14, 2023

Requested Action

APPROVE RESOLUTION 2023-20; AUTHORIZING THE CITY MANAGER TO CONTRACT WITH HDR, INC. FOR DESIGN AND CONSTRUCTION PROFESSIONAL SERVICES FOR THE PROPOSED EASTERN NATURAL GAS MAIN PIPELINE LOOP IN AN AMOUNT NOT TO EXCEED \$437,000.00.

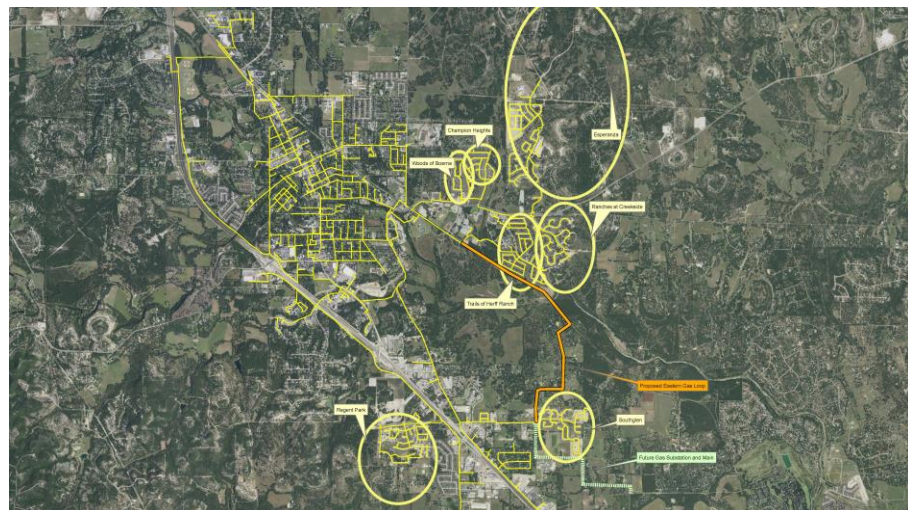
Contact Person

Michael Mann, PE – Utilities Director

Background Information

Over the past few years, several residential developments have installed natural gas infrastructure (along with some commercial). Together, the natural gas demand has grown substantially – especially during unusual weather situations.

Our two existing natural gas substations are on the south end of the system. However, some of our larger gas system expansions have occurred in the SH-46 east area and customer growth in that area is expected to continue.



In the extreme winter storm in February of 2021 (Uri), the incoming pressure from our gas supplier was low due to power outages and compressor station failures across Texas. Rolling electric power outages to control electric peaks in our natural gas distribution area compounded the low gas pressure problem as power returned and most HVAC systems came on simultaneously to heat cold homes/businesses. We were able

to meet unusually high customer demand during that time by requesting conservation.

In December of 2022, we had another extremely cold weather event for a couple of days in a row. The air temperature dropped very suddenly as the cold front approached, and even more (due to increased customer count) systems struggled to heat buildings. Again, the distribution pressure in the system dropped, and there was extremely low pressure at the furthest extent of the system (south end of Ranches at Creekside). This time, however, we were able to increase incoming pressure from our supplier because the transmission system was still operating at near normal.

The air temperature during the ice storm last week was not nearly as low as last December. However, we once again experienced unusually high gas demand following power restoration in the PEC electric service territory. Pressures at the south end Ranches at Creekside (the most remote part of the system) were again unacceptably low. We were able to restore normal gas system operations by temporarily increasing distribution pressure to meet the high demands (but stay below our regulatory maximum pressure) and by requesting customer conservation (lowering thermostats).

In the very near term, we would expect that the gas pressure problems in remote areas of Ranches at Creekside will be remedied as the development progresses to a point that the second feed into that area (from the end of Herff Ranch Blvd.) is installed. This should be in place by Spring of this year.



However, it is only a matter of time until continued utility load growth in that area will grow to a point that more supply is needed routinely.

	<p>Because some of our customers have already experienced problems during unusual circumstances in the past, we feel it is prudent to move forward immediately with a project that has been in our capital improvements plan for next year or the year after. This project will bring another large diameter distribution feed from the south end of the system into the east end.</p> <p>This project is anticipated to cost around \$3M to design and construct. Attached is a proposed professional service contract from HDR, Inc. for design and construction services on that pipeline. The negotiated contract scope and the resultant price is \$407,386.86. Staff requests that the Council authorize this expenditure plus an additional five percent for potential contract scope increases if necessary.</p> <p>As an aside, we anticipate that another natural gas substation and feed into the system will also be required in seven to 10 years as peak system load growth is expected to continue. The utilities capital improvements plan includes this project. Funding for that work will be designated when necessary.</p>
Item Justification	<div> <div> <input checked="" type="checkbox"/> Legal/Regulatory Obligation <input type="checkbox"/> Reduce Costs <input type="checkbox"/> Increase Revenue <input type="checkbox"/> Mitigate Risk <input type="checkbox"/> Master Plan Recommendation </div> <div> <input checked="" type="checkbox"/> Infrastructure Investment <input type="checkbox"/> Customer Pull <input checked="" type="checkbox"/> Service Enhancement <input type="checkbox"/> Process Efficiency <input type="checkbox"/> Other: _____ _____ </div> </div>
Financial Considerations	<p>There is not adequate funding in the natural gas operating fund or capital reserve fund to cover this work. However, staff is proposing that the electric utility capital reserves pay for the work and the gas utility will repay that "loan" with interest over time.</p>
Citizen Input/Board Review	<p>N/A</p>
Legal Review	<p>The City Attorney's office has reviewed the proposed professional services contract.</p>
Alternative Options	<p>If we choose to move forward with providing gas supply from another direction, costs and logistic difficulties would likely increase.</p>
Supporting Documents	<p>Attached maps.</p>

