

COUNCIL ACTION FORM

SUBJECT: **BUILDING ENERGY AUDIT REPORT**

BACKGROUND:

A key strategy established in the community-wide Climate Action Plan, accepted by City Council in June 2023, is to integrate energy efficiency and renewable energy into municipal buildings. These strategies not only reduce carbon emissions but also result in long-term energy cost savings.

In November 2024, an RFP was issued involving energy auditing services at 15 City-owned buildings. An evaluation team reviewed 10 proposals and conducted interviews. In January 2025, City Council awarded the contract to Resource Consulting Engineers, LLC (RCE), of Ames, Iowa, in an amount not to exceed \$102,600. The Electric Administration building was later added to the original scope through a change order of \$1,000.

The scope of work included the following services for 16 City-owned buildings.

- Data gathering and analysis of building plans, utility bill data, and interviews with staff.
- On-site facility inspections.
- Detailed energy analyses.
- Developing specific and impactful recommendations for energy efficiency measures (EEMs), including capital improvement measures and changes to operations and maintenance.

RCE's approach to the project involved three methods: energy modeling, benchmarking, and manual calculations. A detailed energy model was generated for larger or more complex buildings to allow for more customized results (e.g., City Hall). Benchmarking was performed for smaller or more typical building types (e.g., Electric Administration), which allows for useful information to be projected about energy use without the more involved and detailed energy model. Finally, manual calculations were completed for facilities that might be difficult to fully model and where appropriate benchmarking data was not available (e.g., Ames/ISU Ice Arena).

Generally, recommended improvements include installation of new HVAC systems, lighting, water heating, windows, and roof insulation. Each EEM provides detailed information regarding capital costs and savings, including energy, emissions, cost, and simple payback.

EEMs include fuel switching from natural gas to electricity where possible, to align with CAP goals. Recommendations for implementation are included in the report, and for many EEMs, it is recommended that implementation occur at the end of the useful life of the existing equipment. Some EEMs are bundled together, where it makes logistical sense to complete multiple projects at one building simultaneously.

The report also contains a solar feasibility assessment for five City buildings, and an electric

vehicle charging assessment for 15 buildings. The results of the solar assessment indicate that most City buildings would not be suitable for solar, primarily due to roof age. The Fitch Family Indoor Aquatic Center, Schainker Plaza, and the new site of the Ames Animal Shelter may be suitable candidates for solar. Results from the electric vehicle charging assessment indicates adequate electric service size and demand capacity to accommodate expanded charging at most City facilities.

This report will help prioritize projects and inform decisions related to facility planning and investments to continue moving the City towards achieving the Climate Action Plan goals.

Resource Consulting Engineers, LLC (RCE) will be presenting an overview of the Energy Audit Report.

ALTERNATIVES:

1. Accept the attached City of Ames Energy Audit Report.
2. Refer this document to City staff for further information.

CITY MANAGER'S RECOMMENDED ACTION:

It should be emphasized that the Energy Audit Report is not expected to be adopted as a formal policy document or plan. Instead, it provides information for the City to consider as it works towards energy efficiency improvements of City buildings. Furthermore, the report recommends that many of the energy efficiency upgrades be considered for implementation at the end of the useful life of the existing equipment.

Accepting this report does not adopt it as a formal policy document or plan. Therefore, it is the recommendation of the City Manager that the City Council approve Alternative No. 1 and accept the attached Building Energy Audit report.

ATTACHMENT(S):

[2025-1015 City of Ames Energy Audit Report.pdf](#)