ITEM #:	**27**
DATE:	**09-09-25**
DEPT:	**ELEC**

COUNCIL ACTION FORM

SUBJECT: **ELECTRIC ENERGY UPGRADE PROGRAM AND USDA RURAL ENERGY SAVINGS PROGRAM (RESP)**

BACKGROUND:

In November 2024, the City of Ames submitted a letter of intent to apply for the Rural Energy Savings Program (RESP) administered through the United States Department of Agriculture (USDA). The City's proposal is to use the RESP funds to operate an on-bill financing program to implement home energy retrofits, which would ultimately reduce energy use in the community.

Through this program, the City would serve as a pass-through entity, using RESP dollars to operate a revolving fund for the program. Funds would be drawn down from the USDA as projects occur, and the City would utilize these to pay contractors directly for individual projects. The City would then recoup investments over the customer repayment period of 10-15 years for each project. At the end of the 20-year RESP loan term, the City would remit all funds back to USDA.

On May 2, 2025, USDA responded, inviting the City of Ames to submit a full RESP loan application for an amount up to $15 million. If the City is awarded these funds, the amount provided will need to be repaid within 20 years, but the City would be charged no interest.

As part of the next steps in the application process, USDA requires that the City adopt a resolution establishing the energy upgrade program. The goals of the program are to increase access to energy efficiency retrofits, reduce peak demand, improve home health and comfort, and stimulate economic development by hiring local contractors, while addressing the significant barrier many homeowners face with investing in energy efficiency and renewable energy improvements.

It should be noted that the programs discussed are only a vailable to City of Ames residents who are also electric customers of the City’s utilities. It may be feasible to open the programs up to non-electric customers at a later time; however, the project funding repayment charges would need to be tied to the customer’s monthly water bill.

The program aligns with the following City plans and goals:

- City Council Goal: We value environmental sustainability. Pursue initiatives that use new and emerging technologies or processes to assist in meeting the Climate Action Plan.

- Climate Action Plan
  - Big Move #1: Renewable Energy Generation
  - Low-carbon action 1.4: Solar PV on roofs
  - Big Move #2: Building Retrofits
  - Low-carbon action 2.3: High efficiency hot water in retrofit of homes

- Low-carbon action 2.5: Retrofits of homes
- Low-carbon action 2.6: Retrofits of nonresidential buildings
- Low-carbon action 2.7: High-efficiency hot water in retrofits of non-residential buildings
- Low-carbon action 2.8: Heat pumps in non-residential retrofits
- Low-carbon action 2.9: Heat pumps in residential retrofits

On-Bill Energy Efficiency Financing Model

In the on-bill financing model, the utility offers upfront low or no-interest investment for energy upgrades, which may be too substantial in cost for a homeowner to consider implementing on their own. The costs of the upgrades are repaid through the customer's monthly utility bill. The City's role in this model is to finance energy-efficient projects that customers choose to implement.

Through the program, customers experience much lower up-front costs to upgrade their homes with energy-efficient equipment and avoid paying high interest rates through traditional financing (e.g., bank loans). In the U.S., three out of four residential HVAC projects are financed, often resulting in thousands of dollars in interest payments charged over the life of an HVAC loan.

The alternative, an on-bill financing program model, enables savings while supporting the adoption of efficient, electric equipment. While this would be the first program of its kind in Iowa, this on-bill model has been successfully implemented in communities in other states. There are approximately 100 similar programs in the country.

A 2022 study collected performance data on 24 similar programs in 10 states, including mostly electric cooperatives, with some investor-owned utilities and municipal utilities. Utilities ranged in size from 7,000 to over 1 million customers, and program inception dates ranged from 2002 to 2021. Cumulatively, there was over $50 million invested in almost 6,000 projects, with write-off (uncollectable) rates ranging from <0.1% to 0.22%.

Energy Upgrade Program: SmartSave

The program being proposed for Ames, under the name SmartSave, is designed to make installing upgrades straightforward and economical for Ames Electric customers. **If the RESP loan application is successful, the City would partner with a third-party program operator to administer the program and handle most day-to-day activities.** The program operator would be selected through a competitive RFP process, with estimated annual program operator costs of $96,000. The program operator would also work collaboratively with staff to complete program design and start contractor engagement.

Contractors will be trained in the program and provided educational materials to share with customers. Active participation by local contractors will be essential to a successful program. The City would not assume responsibility for or issue any guarantees or warranties regarding the performance of any contractor.

The SmartSave program would contain three tracks: 1) HVAC Replacement, 2) Clean Energy, and 3) Whole-home Retrofits. The initial focus will be on track 1: HVAC Replacement. The

other two tracks would start in year two.

Track 1: HVAC Replacement would offer options for customers whose HVAC systems are nearing or have reached the end of their useful life. A streamlined process involving the program operator's mobile application will enable contractors to quickly gather basic information and present the customer with proposed investment and repayment terms. If the customer chooses to participate, the City investment would cover the majority of the system through the program, and the customer would pay a significantly reduced up-front cost to the contractor. Similarly, Track 2: Clean Energy would enable customers to install solar with significantly reduced up-front cost.

Under Track 3: Whole-home Retrofits, customers would start by signing up for a free energy audit, where a qualified auditor gathers comprehensive data about the property. The program operator then uses this data to model potential energy efficiency upgrades and predict savings. This complex energy and financial modeling incorporates historical utility usage, climate data, and information about the property such as heating sources, age, and air tightness. The model identifies projects that qualify for financing, if any, and communicates this to the customer in an offer.

The offer could include qualifying upgrades such as heat pump, water heater, EV charger, insulation, or solar panels, and also include preliminary investment and repayment terms. The customer then selects which upgrades to move forward with and chooses a contractor. Customers would be free to choose any licensed contractor who has been trained in the SmartSave program to perform the work.

All potential upgrades eligible for RESP funding are included in Attachment 4. Table 1 lists the energy efficiency upgrades that staff intends to include in the program.

Table 1. Eligible Upgrades and Estimated Participation, Cost, Incentives, and Useful Life.

Track	Eligible Upgrades	Average Project Cost	Target Number of Projects per Year	Target % of Total Investment	Expected Useful Life (years)
HVAC Replacement	All-electric and dual-fuel heat pumps.	$12,000	80	50%	18
Clean Energy	Solar, electrical panel upgrades if necessary, battery storage.	$17,000	15	15%	20
Whole-Home Retrofit	HVAC, electric water heaters, EV charging, weatherization, solar, battery storage.	$18,050*	40	35%	10-25

*The average project cost for whole-home retrofit projects was determined by using a weighted average for adoption of the eligible upgrades. The maximum amount financed for a residential project is $30,000. Weatherization could include improved insulation, weather stripping, window and door upgrades, and any other building envelope improvements.

Repayment terms would be limited to 15 years or 80% of the upgrade's useful life, whichever is less. Customers must agree to maintain upgrades per the manufacturer's instructions. The on-bill charge would stay with the property in the event of a customer move-out or sale. Notice of the repayment arrangement would be filed with the Recorder, with the anticipation that a lien search would notify incoming property owners. On-bill charges are attached to the meter and remain until the City's costs are fully recovered.

Feasibility Study

On May 13, 2025, the City Council authorized staff to work with the Iowa Economic Development Authority and the Energy Efficiency Institute on a feasibility study. This project is being worked on in parallel to the RESP application. The study has answered key outstanding questions and concerns about the financing model, including program design, value to the utility, and detailed program financials.

The feasibility study is being funded by the Iowa Economic Development Authority. Preliminary results indicate that the program will be economically feasible if it is structured as outlined. The study will continue through the end of September 2025.

The request to establish the program and authorize staff to apply for the RESP loan is before Council now because the USDA's deadline to apply for the loan is September 10, 2025 (extended from the original deadline in July). **It should be noted that the Council resolution establishing the program and authorizing staff to apply for the USDA loan does NOT obligate the City to receive the loan funds and implement the program. If the City's loan application is successful, staff will return to seek Council's authorization on a loan agreement.**

RESP Loan

If the loan application is successful, the RESP loan terms would be for up to $15 million repaid over 20 years at 0% interest. USDA may choose to fund the application at a lower amount, or not at all. **Even if awarded the full amount, loan funds are drawn down as they are used, and the City would maintain full control over the scale of the program and the amount of funds borrowed.** Program year 1 would be treated as a pilot year, and the program will not exceed $500,000 investment in the pilot year. More details on program financials can be found in Attachment 5. Financial Forecast.

Additionally, USDA requires RESP loans to be secured with collateral, ensuring they are repaid in the event of a default. **Staff proposes to use electric utility fund balance as collateral.** Electric Services maintains approximately $50,000,000 in reserve funds. Due to the revolving nature of the loan and repayment, USDA borrowing likely would not exceed $10,000,000 at any one time. The City and USDA would agree on a process involving a joint account where the City would maintain a balance no less than the outstanding loan amount. USDA would hold priority over those funds in the event of a default by the City. As previously mentioned, staff estimates the default rate, or write-off rate, for customer financing would be less than 0.5%.

The City would charge a low, fixed fee on its investment offered to customers. USDA allows RESP programs to charge up to a 5% fee. All fee revenue would be used to cover the program operator cost. Staff estimates the City will need to charge a program fee of 0.25% to

cover program costs. The City's financial commitment to administer the program would include operations, loan loss reserve, program marketing, and staff time.

- **Program Start-Up** – Start-up costs will be incurred before program launch. This includes establishing the contractor network and designing program documents and processes, outreach and marketing, and legal expenses. These one-time costs are estimated to be $50,000, also to be paid for by Electric utility funds.
- **Operations** – Program operational costs are estimated to be approximately $96,000 per year. These include energy audits, program operator software use, administrative costs, and quality assurance. Electric utility funds would pay for $75,000 of these costs, and fees charged to participating customers would pay for the remaining $21,000 each year.
- **Loss Reserve** – Write-offs, or uncollectables, have been estimated based on data from numerous existing similar programs and the current Ames utilities write-off rate. It is estimated that the program could result in $75,000, or 0.5%, in write-offs over 20 years, and could be covered by existing Electric utility funds or by increasing the program fee, if write-offs occur.
- **Staff Time** – The Electric Services, City Manager's Office, Communications and Outreach, and Customer Service teams would need to invest staff time to administer the program in partnership with the program operator. Robust oversight of the program is needed for quality assurance. Customer Service would manually apply and remove bill charges to individual accounts at the start and end of each customer's financing term.

Program costs are estimated in Table 2. Costs are dependent on the number of projects completed, and were modeled based on full expenditure of $15 million in capital over 10 years. If fewer projects are completed and capital investment is less, program costs would also decrease. Staff estimates direct costs to the City of $125,000 in year one, and $75,000 each in years 2 through 10.

Table 2. Uses and Sources of Funds

Use of Funds	Source of Funds	Amount
Feasibility Study	Iowa Economic Development Authority Grant	$37,500
Program Start-Up (marketing, legal fees, program design)	City of Ames Electric Utility Fund	$50,000
Operations (Program Operator) $96,000/year	City of Ames Electric Utility Fund	$75,000/year
	USDA RESP Loan (program fee)	$21,000/year
Working Capital	USDA RESP Loan	$15,000,000
Loss Reserve	City of Ames Electric Utility Fund	Write-offs (est. $75,000)

The full contents of the RESP loan application are attached in Attachments 1-8, including several legal documents that have been reviewed and approved by the Legal Department.

ALTERNATIVES:

1. Approve establishing an energy upgrade program and authorizing staff to submit a federal loan application for the USDA Rural Energy Savings Program in the amount up to $15,000,000.

2. Do not establish an energy upgrade program or authorize staff to submit a federal loan application.

3. Refer back to staff.

CITY MANAGER'S RECOMMENDED ACTION:

The proposed energy upgrade program would make significant progress towards Climate Action Plan goals and result in cost savings for utility customers. The program would also increase access to energy efficiency by removing the barrier of high up-front costs and borrowing costs. Energy efficiency retrofits also benefit the utility through peak demand reductions.

The program and federal loan application present risks, including write-offs, equipment maintenance issues, and resident turnover. The program should start with a pilot phase and scale slowly and methodically as the City and utility customers become more familiar with the model. Staff believes repayment through the utility bill minimizes the risk of write-offs, as other similar programs have experienced.

The next steps in exploring this energy upgrade program is for Council to establish an energy upgrade program and authorizing staff to submit a federal loan application for the USDA Rural Energy Savings Program in the amount up to $15,000,000. If awarded, staff will return for Council approval of an agreement with USDA. If not awarded, staff will reevaluate the program. Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, as described above.

ATTACHMENT(S):

1. Cover Letter.pdf
2. Board Resolution.pdf
4. Multi-tier Environmental Agreement.pdf
5. Financial Forecast.pdf
6. & 7. City of Ames RESP Loan Application.pdf
8. Legal Documents (combined).pdf