



# Future Ready Homes!

Residential New Construction Program

Cedar Falls Utilities (CFU) offers a residential new construction program designed to encourage homeowners and home builders to construct new homes that are highly efficient, healthy, comfortable, and well prepared for the life of the building.

✓ Lower Utility Bills

✓ Increased Comfort

√ \$3,000 incentive \$5,000 incentive!!!

## Eligibility

- Residential new construction that will receive all energy and communication utilities from CFU.
- The building must pass all required inspections.
- All criteria on the Prescriptive Checklist or HERS Checklist must be met. Only one of the two checklist options may be used (no mixing lists).

## **Recommended steps:**

- 1. Preliminary meeting between homeowner, builder, and applicable subcontractors to discuss listed rebate criteria.
- 2. Choose a checklist to follow: 1) <u>Prescriptive</u> or 2) <u>HERS</u>.
  - ALL checklist requirements must be met.
  - If opting for HERS, find and hire a certified HERS rating professional.
- 3. After the building has passed final occupancy inspection by the Cedar Falls Building Inspections Department, submit the completed application form and all required documentation to <u>energyservices@cfunet.net</u>.
- 4. Upon receipt of a completed application, CFU will reach out to schedule a rebate inspection.
- 5. The incentive will be awarded to the home builder.

## IMPORTANT

There are significant similarities between the CFU Future Ready Home rebate criteria and other available programs such as <u>Energy Star</u> and the <u>Department of Energy Zero Energy Ready Home</u> program. CFU encourages homeowners, builders, and applicable subcontractors to explore achieving all available designations and incentives possible.



# Future Ready Home (Residential New Construction) 2023 Rebate Application

## **Prescriptive Checklist**

COMPONENT	REQUIREMENTS				
HVAC SYSTEM DESIGN & SIZING	Completed <u>ACCA HVAC Plan Review Form</u> and supporting documents.	ACCA Approved Software			
HEATING EQUIPMENT	<ul> <li>□ NG Furnace: ≥ 95% AFUE, ASHP: ≥ 8.1 HSPF2,</li> <li>GSHP: ≥ 16 EER &amp; ≥ 3.5 COP</li> </ul>	AHRI Ref. No.: Serial No.:			
COOLING EQUIPMENT	□ <b>A/C</b> : ≥16 SEER2 <b>ASHP</b> : ≥ 15.2 SEER2 & ≥ 10 EER2, <b>GSHP</b> : ≥ 16 EER & ≥ 3.5 COP	AHRI Ref. No.: Serial No.:			
WI-FI ENABLED SMART THERMOSTAT	□ Wi-Fi connectivity capabilities.	Make: Model:			
AIR HANDLER FILTER SIZE	□ Filter: ≥ 5" in thickness				
SUPPLY & RETURN PLENUM	□ No 90° angles on supply/return plenums.	Rounded/flared transitions, 45° elbows, or duct turning vanes w/ viewport.			
WATER HEATING	Energy Star certified water heater	AHRI Ref. No.: Serial No.:			
LIGHTING	□ 100% LED				
BUILDING AIR LEAKAGE	$\Box \le 2.5 \text{ ACH50 or} \le 0.20 \text{ CFM50/SF}$				
CONSTRUCTION, FENESTRATION, & THERMAL ENVELOPE ( <u>RESCHECK</u> )	REScheck document completed with result ≥5% better than code maximum.	REScheck can be completed at <u>https://www.energycodes.gov/rescheck</u> <u>Wall assembly suggestions to achieve</u> <u>compliance:</u> • 2X6 ccsf, ocsf, BIBS • 2X4 ccsf, ocsf, + R-3 c.i. • 2X4 BIBS + R-5 c.i. • SIPs or ICF • Insulated sheathing (ZIP System Insulated R-Sheathing®, etc.)			
INTERNET CONNECTIVITY READY	<ul> <li>A) Conduit from exterior electric meter location present and is minimum of ¾" inside diameter.</li> <li>B) At least one CAT-6A ethernet connection from bathroom/storage/closet.</li> </ul>	to interior electric service panel location n electrical panel to all rooms; excluding			
EV CHARGING READY	□ Panel capacity with GFCI breaker, conduit, & wiring for at least one 240V, ≥ 30A outlet or junction box in garage.				



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## **HERS Checklist**



Working with a RESNET certified HERS rater during the preliminary, planning phase and utilizing pre-construction modeling can assist in ensuring the new home will achieve the desired <u>HERS score</u>.

COMPONENT	REQUIREMENTS				
HERS DOCUMENTATION PROVIDED TO CFU BY RESNET CERTIFIED HERS RATER	☐ HERS score ≤ 44				
HVAC SYSTEM DESIGN & SIZING	Completed <u>ACCA HVAC Plan Review</u> <u>Form</u> and supporting documents.	ACCA Approved Software			
WI-FI ENABLED SMART THERMOSTAT	☐ Wi-Fi connectivity capabilities.	Make: Model:			
AIR HANDLER FILTER SIZE	$\Box$ Filter: $\geq$ 5" in thickness				
SUPPLY & RETURN PLENUM	No 90° angles on supply/return plenums.	Rounded/flared transitions, 45° elbows, or duct turning vanes w/ viewport.			
INTERNET CONNECTIVITY READY	<ul> <li>A) Conduit from exterior electric meter</li> <li>location present and is minimum of ¾" inside</li> <li>B) At least one CAT-6A ethernet connected</li> <li>excluding bathroom/storage/closet.</li> </ul>	location to interior electric service panel de diameter. tion from electrical panel to all rooms;			
CONSTRUCTION, FENESTRATION, & THERMAL ENVELOPE ( <u>RESCHECK</u> )	☐ Building components must meet <u>2021</u> <u>IECC table R402.1.3 prescriptive</u> <u>minimum requirements</u> .	Verified via physical inspection, photos, and HERS modeling software inputs.			
EV CHARGING READY	<ul> <li>□ Panel capacity with GFCI breaker,</li> <li>conduit, &amp; wiring for at least one 240V, ≥</li> <li>30A outlet or junction box in garage.</li> </ul>				



## Future Ready Home (Residential New Construction) 2023 Rebate Application

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New Home Address:	Date of Final Inspection (CFU):

Rebate	Check	Delivery:	
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CFU will award the incentive to the home builder.

Issue rebate check to (Name): \_\_\_\_\_

Mailing Address: \_\_\_\_\_

□ I agree to <u>Terms and Conditions</u> (last page)

Builder Name: \_\_\_\_\_\_

Builder Signature: \_\_\_\_\_

### **General Terms and Conditions**



- 1.1 The applicant agrees that the stated energy efficiency measure(s) is (are) installed and in operation at the address listed in the application, and that the information contained in this application is accurate and complete.
- 1.2 I have read and agree to the Terms & Conditions of this application (General and Specific).
- 1.3 I agree to indemnify, defend, hold harmless and release Cedar Falls Utilities (CFU) from any claims, damages, liabilities, costs and expenses (including reasonable attorneys' fees) arising from or relating to the removal, disposal, installation or operation of any equipment or related materials in connection with the programs described in this application, including any incidental, special or consequential damages.

#### 1.4 Cedar Falls Utilities:

- 1.4.1 does not endorse any provider, manufacturer, product, labor or system design by offering this program;
- 1.4.2 is not responsible for any tax liability arising from customer's receipt of a rebate payment;
- 1.4.3 is not responsible for negotiating contractor pricing or expediting contractor work;
- 1.4.4 does not expressly or implicitly warrant the performance of installed equipment or contractor's quality of work (contact your contractor or vendor for warranty information);
- 1.4.5 is not responsible for the proper disposal/recycling of any waste generated by this project;
- 1.4.6 is not liable for any incidental or consequential damages caused by the installation of the equipment or for any damage caused by malfunction of the installed equipment;
- 1.4.7 does not guarantee that a specific level of energy or cost savings will result from the implementation of energy efficiency measures or the use of products funded under this program;
- 1.4.8 may modify or end any cash rebate program at any time without notice. Incentives are available on a first-come, first-served basis. Neither preapproval of a project, nor any other action by CFU, entitles applicant to a rebate payment until and unless this application is approved by CFU. Submitting a completed application does not guarantee receipt of a rebate from CFU.

#### 2 Project Eligibility:

- 2.1 Projects may only apply for rebate programs available during the calendar year that the project was completed.
- 2.2 Applicant must be a CFU customer for the primary energy source (electricity or natural gas) saved by the product for which a rebate is being applied for.
- 2.3 Projects must comply with all applicable federal, state, and local codes, standards, and regulatory requirements.
- 2.4 To evaluate your application, CFU will use the rules listed on the application form that was posted at www.cfu.net on the day CFU receives your application.
- 2.5 All equipment must be new; used or rebuilt equipment is not eligible.
- 2.6 Existing equipment must be removed and may not be resold.

#### 3 CFU Rebate Processing and Application Deadline:

- 3.1 An application must be submitted by January 31 of the year following the calendar year the project was completed.
- 3.2 Allow two to eight weeks for application review and funding of approved rebates.
- 3.3 Incomplete applications may be delayed or rejected.
- 3.4 CFU reserves the rights to:
- 3.4.1 award rebates in the form of utility bill credits or directly mailed checks;
- 3.4.2 verify invoices and proof of payments with financial institutions;
- 3.4.3 notify you of rebate status via text message or email;
- 3.4.4 require invoices that separately itemize the cost for each equipment type.
- 3.5 In no event will rebate awarded exceed 60% of the total project cost. Total project cost is the total of equipment and labor costs necessary to complete installation. Other limits may apply.

#### 4 Inspection:

4.1 Rebates that require inspections must pass required inspections before a rebate will be issued. Specific requirements and instructions are listed on rebate applications.

#### 5 Verification & Publicity:

- 5.1 CFU reserves the right to inspect and verify the installation or conduct additional tests; ask you to complete a customer survey; and/or meter the specified equipment or process, at no cost to the customer, in order to determine the actual energy saved for up to 12 months after the installation.
- 5.2 CFU may publicize your participation in this program unless you request otherwise in writing.
- 5.3 Rebate application information may be shared with state agencies or departments.





Contractor's Signature

## Residential Plans Examiner Review Form For HVAC System Design (Loads, Equipment, Ducts)

Form RPER 2.0

## County, Town, Municipality, Jurisdiction - Header Information

Contractor	Applicable Attachments
	OEM performance data (heating, cooling, blower): Yes No
Mechanical License #	Duct distribution sketch Yes Volume No IRC Table R301.2 (climatic & geographic design criteria) Yes No
Building Plan #	
Home Address (Street or Lot #, Block, Subdivision	n)
HVAC LOAD CALCULATION	(IRC M1401.3)
Manual J Design Criteria and Loads	
Location	Summer Design Conditions Manual J Loads
Elevationft	Outdoor Cooling Temp°F Total Heat LossBtu
Altitude Correction Factor ACF	Indoor Cooling Temp°F
Latitude° N	Cooling Temp Diff°F Sensible Heat GainBtu
Winter Design Conditions	Indoor Summer Design RH% Latent Heat GainBtu
Outdoor Winter Temp °5	Concident wet Buib Temp F Total Heat GainBtu
Indoor Winter Temp °F	
Heating Temp Diff °F	
The	heat loss / gain was calculated in accordance with ACCA Manual J? 🗌 Y 🔲 N
HVAC EQUIPMENT SELECTION	(IRC M1401.3)
Heating Equipment	Cooling Equipment
Furnace Boiler Electric H	leat Air Conditioner Heat Pump
Single Stage Multi-Stage Modulatin	g Air-to-Air Geothermal Open Loop Geothermal Closed Loop
	Single Speed 🗌 Multi-Stage 🗌 Variable Speed
Model	Model
Output Btu Sizing Value	Btu Sensible Btu Sizing Value Btu
Supplemental Btu Size Limit	% Latent Btu Size Limit %
Heat Load: Capacity	% Total Btu Load: Capacity %
Size Factor is within Manual S Size Limit?	Y 🗌 N Size Factor is within Manual S Size Limit? 🗌 Y 🗌 N
HVAC DUCT DISTRIBUTION DESIGN	(IRC M1601.1)
Design Airflow Cfm	Longest Supply Duct Ft Duct Materials Used
External Static Pressure (ESP)	Longest Return Duct Ft Trunk Duct: Duct Board Sheet metal
Component Pressure Loss (CPL)	Total Effective Length (TEL) Ft Flex Lined Sheet metal Other
Available Static Pressure (ASP)	Friction Rate IWC Branch Duct: Duct Board Sheet metal
ESP – CPL = ASP	(ASP x 100) / TEL = Friction Rate
	Ducts are sized per Manual D?
I declare the load calculation, equipment sele	ction, and duct system design were rigorously performed based on the building
plan listed above and understand the claims m	nade on these forms may be subject to review and verification.
	Date
Contractor's Printed Name	



#### Project

**REScheck Sample** 

Energy Code:	2012 IECC				
Location:	Cedar Falls, Iowa				
Construction Type:	Single-family				
Project Type:	New Construction	า			
Orientation:	Bldg. faces 180 d	eg. from North			
Conditioned Floor Area:	2,025 ft2				
Glazing Area	7%				
Climate Zone:	6 (7406 HDD)				
Permit Date:	2024-01-01T06:00:00.000Z				
Permit Number:	12-3456-NEWB				
All Electric	true				
Is Renewable	false				
Solar Ready:	false				
Has Charger	true				
Has Battery:	false				
Has Heat Pump:	false				
Electric Ready:	false				
Responsive Water Heating:	false				
Construction Site:	Owne	er/Agent:	Des		
1234 A Street	John	Doe	Ba		
Cedar Falls, IA 50613	Own	er	XC		
	1234 Code	A Street	12		
	Ceda 319-	266-1761	31		

Designer/Contractor: Bart Simpson X Construction Co 1234 B Street Cedar Falls, IA 50613 319-266-1761 energyservices@cfunet.net

### Compliance: Passes using UA trade-off

Compliance: 22.9% Better Than Code

Maximum UA: 266 Your UA: 205

The % Better or Worse Than Code Index reflects how close to compliance the house is based on code trade-off rules. It DOES NOT provide an estimate of energy use or cost relative to a minimum-code home.

Slab-on-grade tradeoffs are no longer considered in the UA or performance compliance path in REScheck. Each slab-on-grade assembly in the specified climate zone must meet the minimum energy code insulation R-value and depth requirements.

energyservices@cfunet.net

# Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Prop. U-Factor	Req. U-Factor	Prop. UA	Req. UA
Ceiling: Raised or Energy Truss	2,000	15.0	45.0	0.016	0.026	32	52
N Wall: Wood Frame, 24" o.c. Orientation: Unspecified	405	23.0	5.0	0.040	0.048	14	17
Sliding Patio Door: Glass Door (over 50% glazing) Orientation: Unspecified	40			0.280	0.320	11	13
Sliding Window: Vinyl Frame Orientation: Unspecified	5			0.300	0.320	2	2
E Wall: Wood Frame, 24" o.c. Orientation: Unspecified	405	23.0	5.0	0.040	0.048	15	18

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Prop. U-Factor	Req. U-Factor	Prop. UA	Req. UA
Garage Entry Door: Solid Door (under 50% glazing) Orientation: Unspecified	21			0.120	0.320	3	7
S Wall: Wood Frame, 24" o.c. Orientation: Unspecified	405	23.0	5.0	0.040	0.048	13	16
Front Door: Solid Door (under 50% glazing) Orientation: Unspecified	21			0.220	0.320	5	7
Picture Window: Vinyl Frame Orientation: Unspecified	25			0.300	0.320	8	8
Picture Window Copy: Vinyl Frame Orientation: Unspecified	25			0.300	0.320	8	8
W Wall: Wood Frame, 24" o.c. Orientation: Unspecified	405	23.0	5.0	0.040	0.048	15	18
Casement Window: Vinyl Frame Orientation: Unspecified	10			0.210	0.320	2	3
Casement Window Copy: Vinyl Frame Orientation: Unspecified	10			0.210	0.320	2	3
Rimjoists/Boxsills: Other Orientation: Unspecified	180			0.040	0.048	7	9
N Basement Wall: Insulated Concrete Forms Orientation: Unspecified Wall height: 9.0' Depth below grade: 8.0' Insulation depth: 9.0'	405		22.0	0.038	0.050	15	20
Egress Window: Vinyl Frame Orientation: Unspecified	8			0.500	0.320	4	3
E Basement Wall: Insulated Concrete Forms Orientation: Unspecified Wall height: 9.0' Depth below grade: 8.0' Insulation depth: 9.0'	405		22.0	0.038	0.050	15	20
Sliding Bsmt Window: Vinyl Frame Orientation: Unspecified	3			0.500	0.320	2	1
S Basement Wall: Insulated Concrete Forms Orientation: Unspecified Wall height: 9.0' Depth below grade: 8.0' Insulation depth: 9.0'	405		22.0	0.038	0.050	15	20
W Basement Wall: Insulated Concrete Forms Orientation: Unspecified Wall height: 9.0' Depth below grade: 8.0' Insulation depth: 9.0'	405		22.0	0.038	0.050	15	20
Sliding Bsmt Window Copy: Vinyl Frame Orientation: Unspecified	3			0.500	0.320	2	1

*Compliance Statement:* The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2012 IECC requirements in RES*check* Version : REScheck-Web and to comply with the mandatory requirements listed in the RES*check* Inspection Checklist.

Bart Simpson, General Contractor	Bart Simpson	1-1-2024
Name - Title	Signature	Date