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PUBLIC SERVICE  
COMMISSION

January 22, 2015

Mr. Jeff Derouen  
Executive Director  
Kentucky Public Service Commission  
P.O. Box 615  
211 Sower Boulevard  
Frankfort, KY 40602

Re: PSC Case No. 2014-00359

Dear Mr. Derouen:

Please find enclosed for filing with the Commission in the above-referenced case a fully executed copy of the Proposal and Purchase Order by and between East Kentucky Power Cooperative, Inc. and System's Building Research Alliance pursuant to ordering paragraph 2 in the Order dated January 6, 2015.

Very truly yours,

A handwritten signature in blue ink, appearing to read 'Patrick C. Woods', is written over a faint, larger version of the signature.

Patrick C. Woods

Enclosures

4775 Lexington Rd. 40391  
P.O. Box 707, Winchester,  
Kentucky 40392-0707

Tel. (859) 744-4812  
Fax: (859) 744-6008  
[www.ekpc.coop](http://www.ekpc.coop)

A Touchstone Energy Cooperative The logo for Touchstone Energy Cooperative, featuring a stylized sun or starburst design.



# Purchase Order

Dispatch via E-Mail

## EAST KY POWER COOPERATIVE

PO Box 707  
Winchester KY 40392-0707  
United States

**Vendor:** 0000021582  
SYSTEMS BUILDING RESEARCH ALLIANCE  
EMANUEL LEVY  
1776 BROADWAY SUITE 2205  
NEW YORK NY 10019

<b>Purchase Order</b> EKPC-0000083669	<b>Date</b> 01/16/2015	<b>Revision</b> 1	<b>Page</b> 1
<b>Payment Terms</b> 60 Days Net	<b>Freight Terms</b> F.O.B. Dest, Freight PPD/Add		
<b>Buyer</b> Rob Ritchey	<b>Phone</b> 859/745-9759	<b>Currency</b> USD	

**Ship To:** WINCHESTER  
4775 Lexington Road  
Winchester KY 40391  
United States

**Bill To:** PO Box 707  
Winchester KY 40392-0707  
United States

Line-Sch	Item/Description	Mfg ID	Quantity UOM	PO Price	Extended Amt	Due Date
1- 1	Facilitation of Energy Star Manufactured Home Program		765,800.00 DOL	1.0000	765,800.00	12/31/2015
<b>Schedule Total</b>					<u>765,800.00</u>	
<b>Item Total</b>					<u>765,800.00</u>	

This is a NOT to EXCEED PO for \$765,800. All quantities are NOT guaranteed and only listed as an estimate. EKPC will not be responsible for total quantities not executed.

Price is a not to exceed amount of \$765,800 based on following:

- 1) Estimated 400 homes X \$1,750 rebate each home = \$700,000
  - 2) Estimated service fee not to exceed \$65,800 (Program Start-up \$5,800 Time and Materials-Not to Exceed + Program Facilitation of \$60,000 (\$150 per home X 400)
- Reference e-mail quote dated July 1, 2014 from Emanuel Levy.

This PO and program will start immediately.

EKPC contact will be Stephanie Cornett at 859-765-9288 or stephanie.cornett@ekpc.coop. All scope of work requests and approval of invoices will be per Stephanie Cornett or her designate.

RECEIVING HOURS ARE FROM 7:30 AM TO 3:30 PM, MONDAY THRU FRIDAY.

Total PO Amount 765,800.00

**East Kentucky Power Cooperative Standard Terms shall apply unless parties have executed mutually agreed upon terms.**

All shipments, shipping papers, invoices, and correspondence must be identified with our Purchase Order Number including associated Line Item Number. Overshipments will not be accepted unless authorized by Buyer prior to shipment.

**Authorized Signature**

**Category Sourcing Manager**

*Robert E. Ritchey*

## **ENERGY STAR Manufactured Housing Program East Kentucky Power Cooperative, Inc.**

### **Background**

The Systems Building Research Alliance (SBRA) is a national non-profit organization founded in 1995. SBRA was established by a consortium of electric utilities in the Southeast and the major companies of the factory building industry with the express goal of developing and implementing solutions for improving energy performance of new and existing factory built homes. Among SBRA's current responsibilities are providing national oversight for the ENERGY STAR factory built homes program in support of the U.S. Environmental Protection Agency (EPA). To foster innovative thinking and advances in building practice, SBRA is the nexus for bringing together representatives of the factory building industry with public agencies, non-profits and other organizations.

SBRA is uniquely positioned to provide professional services related to operation of the ENERGY STAR Manufactured Housing Program by integrating existing ENERGY STAR-related assets for the benefit of the project. These include the following:

- SBRA is responsible to U.S. EPA for quality control oversight of ENERGY STAR factory built homes. SBRA authored the ENERGY STAR compliance protocol for factory built homes and oversees a network of third-party quality inspectors known as ENERGY STAR Certifiers that work with the plants.
- SBRA has long-standing established relationships with the factory building stakeholders in EKPC's service territory.
- SBRA tracks every ENERGY STAR manufactured home produced in the U.S. through a proprietary web-based database known as the ENERGY STAR *Information Manager*.
- For the past seven years, SBRA has been responsible for facilitating, overseeing and implementing programs that promote—generally with the aid of financial incentives—the construction and sale of ENERGY STAR factory built homes. SBRA has administered ENERGY STAR housing rebate programs in cooperation with utilities and state agencies in several areas across the nation, including California, Nevada, North Carolina and in the Tennessee Valley Authority's seven-state service area in the Southeast.

With this varied experience, SBRA has honed the approach to creating an environment conducive to changing building practices, specifically moving the industry toward making ENERGY STAR an integral part of new construction practice.

### **Objective**

The ENERGY STAR Manufactured Housing Program is intended to grow the market for ENERGY STAR homes in East Kentucky Power Cooperative's (EKPC) service area by providing manufactured home producers with an incentive to promote and facilitate the completion of new ENERGY STAR certified manufactured homes.

### **Measure Description**

The Program will pay incentives in the form of rebates for electrically heated manufactured homes that qualify for the ENERGY STAR label as defined by the U.S. EPA. ENERGY STAR compliance requires the use

of a combination of envelope and equipment measures that in combination result in performance that is significantly more energy efficient than comparable homes built to the federal HUD code<sup>1</sup>.

An ENERGY STAR certified manufactured home is equipped with the following features:

- Thermal envelope improvements
  - increased envelope insulation
  - improved duct insulation
  - tight ducts construction
  - high efficiency windows (requirements for U-value, area and solar heat gain coefficient)
  - tight envelope construction
- High efficiency equipment/control strategies
  - high efficiency heat pumps in place of typically installed electric resistance furnaces and air conditioning equipment
  - high efficiency domestic water heater
  - programmable thermostat

## Quality Assurance

Under a policy effective November 1, 2005, the U.S. EPA made plant certification, third-party plant Certifier oversight and field performance verification for ENERGY STAR manufactured homes the responsibility of SBRA as the national Quality Assurance Provider (QAP). To assure quality at every step in the ENERGY STAR process, SBRA has established a process that both leverages the quality control measures already in place for manufactured homes (the plant DAPIA and IPIA process discussed below) and has created a separate network of third-party agents called ENERGY STAR Certifiers that function in a similar capacity as Home Energy Rating System (HERS) raters and providers. This four-tiered quality control system—DAPIAs, IPIAs, Certifiers and SBRA—taken together assure that ENERGY STAR manufactured homes consistently perform to expectation and, if and when exceptions arise, they are addressed quickly and the method of their resolution is used to improve the overall QC process.

There are several overlapping and reinforcing procedures identified below that assure that the manufacturer that builds ENERGY STAR homes is meeting or exceeding the requirements of the program.

- **DAPIA approvals of the ENERGY STAR package:** Under the HUD standards that regulate manufactured homes, every design must be approved by a third-party agent called the Design Approval Primary Inspection Agency (DAPIA). Manufacturers develop ENERGY STAR compliant packages that are incorporated into the DAPIA package and are thus covered under the umbrella of HUD enforcement. Therefore, failure to build the home as specified would be a regulatory breach. Conformance of the design to the ENERGY STAR requirements is verified by the ENERGY STAR Certifiers.
- **IPIA approval during construction:** The HUD standards also require an in-plant inspection of all homes by another third party called an IPIA (In-Plant Plan Inspection Agency). The IPIA is responsible for verifying that the manufacturer is building the home in accordance with the DAPIA-approved plans. For ENERGY STAR homes, the IPIA checks during the production process that the home is built with the required insulation, equipment, windows, controls and other features found on the approved plans.
- **ENERGY STAR Certifiers:** Separate and apart from the above process that leverages the existing inspection agencies, every manufacturer must have a third-party ENERGY STAR Certifier. The

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<sup>1</sup> 24 CFR Part 3280, *Manufactured Home Construction and Safety Standards*, U.S. Department of Housing and Urban Development.



Certifiers are responsible to SBRA as the ENERGY STAR QAP. SBRA requires that these agents have skills equivalent to HERS raters and must be familiar with factory building practices. The actions of the manufactured home Plant Certifiers are governed by procedures stipulated by SBRA. The Certifiers provide a unique function and are on the front lines of assuring conformance to ENERGY STAR requirements. The role of the Certifier includes the following:

- Oversee the plant ENERGY STAR qualification process.
  - Train plant production staff in ENERGY STAR techniques.
  - Review and if acceptable, approve plant processes and the plant’s ENERGY STAR-related documentation, including ENERGY STAR qualified home designs, ENERGY STAR Site Installation Checklist, Quality Control Manual and the Manufacturer’s Site Installation Manual.
  - After initial plant certification, conduct ongoing quality control inspection and testing of a representative sample of completed homes.
  - Participate in and contribute to periodic meetings of Certifiers conducted by SBRA regarding program quality control and oversight.
- **SBRA Oversight:** As the national QAP, SBRA oversees the work of the Certifiers and routinely reviews quality control methods and approaches with the Certifiers.

### Market Characteristics at a Glance

- Total new manufactured home shipments for Kentucky<sup>2</sup> ..... 2,214
- Estimated number of homes placed in EKPC’s service area ..... 1,000
- Estimated percent of homes in Kentucky with electric resistance heat.....80%
- Total potential market (number of new homes annually)..... 800
- Target number of program rebate homes (annually) ..... 400

### Rebate Amount

An incentive of **\$1,750** would be paid to the home manufacturer for each new ENERGY STAR certified home that is retail sold to a customer of EKPC and equipped with a heat pump. Providing the incentive directly to the manufacturer (as opposed to the customer or retailer) is, in effect, a wholesale purchase since it covers the factory-installed measure costs before markups. This leverages the program investment and, compared with a customer incentive, nearly doubles the energy savings per rebate dollar. Payment of the incentive to the home manufacturer would be subject to demonstrated completion of the following items:

- Construction in the plant of the home with features that meet or exceed the provisions of the ENERGY STAR New Homes program for manufactured homes along with all required documentation.
- Affixing the U.S. EPA ENERGY STAR (blue) and SBRA Quality Assurance (gray) labels to the home (see Figure 1), signifying that the home is built in accordance with the program quality control procedures.



Figure 1. Labels for ENERGY STAR Manufactured Homes

<sup>2</sup> Based on 2013 market data.

- Recording information about the home in the ENERGY STAR **Information Manager**, SBRA's proprietary web-based compliance tracking software.
- Installation of the home at the building site and completion of the ENERGY STAR **Site Installation Checklist**. As part of this process, verifying the installation of the heat pump as required under the program.
- Signing the Site Installation Checklist and the Quality Assurance label by an authorized agent of the manufacturer.
- Archiving documentation detailing the items above for inspection by SBRA and the plant's ENERGY STAR Certifier. (The Certifier will further verify compliance with these requirements by testing in the field a representative sample of homes built by the manufacturer.)

## Scope of Work

Implementation of the ENERGY STAR Manufactured Housing Program would consist of two main efforts: initial development, coordination and outreach activities to launch the program in EKPC's service area, and ongoing facilitation activities required to review and approve homes for the rebate.

### Task 1. Program Start-Up

This task includes the following start-up activities needed to launch the program:

- Develop a **Zip Code Look Up Tool** to be used by plants and SBRA to verify that a home is located in EKPC's service area;
- Modify SBRA's databases for compliance tracking and monthly reporting to EKPC;
- Coordinate with EKPC to establish a process for verifying homes that are located on the border or "cusp" of EKPC's service area;
- Conduct outreach to plants and educate key plant personnel on EKPC program procedures and requirements; and,
- Execute a Memorandum of Understanding (MOU) with each plant stipulating the terms and conditions of participating in the Program.

### Task 2. Program Facilitation, Rebate Management and Ongoing Support

Program facilitation activities include the following:

- **General program administration, management and oversight:** Create management systems, day-to-day program administration, contract administration, overall coordination and general liaison with EKPC Program Manager to review program status and resolve issues.
- **Verify home eligibility:** Identify potential program homes in the "pipeline" and follow-up with plants to encourage submission of rebate documentation; coordinate with EKPC to verify customer account or home address for "cusp" homes.
- **Compliance tracking and verification:** Review data provided by the home manufacturer via **Information Manager** and review the completed **Site Installation Checklist** to track and verify compliance of submitted homes and heating/cooling equipment with program requirements; follow up with manufacturer on any missing information or documentation.
- **Monthly invoicing and reporting:** Compile data and provide monthly report to EKPC on ENERGY STAR home production and completions, and progress toward meeting program goals. The data listed below will be provided in MS Excel format along with the invoice each month. The completed **Site Installation Checklist** for each home also will be uploaded in EKPC's Energy Efficiency Collaborative Platform (EECP), EKPC's DSM program tracking system.

**HOME**

Home Serial No.  
 Manufacture Date  
 Installation Checklist Date  
 Home Sq Ft

**HOME MANUFACTURER**

Corporate Parent Company  
 Plant Company Name  
 Plant City  
 Plant State

**PROGRAM TRACKING**

SBRA Invoice No.  
 Date Received  
 Date Approved  
 Notes

**HOMEOWNER**

Homeowner Name  
 Home Street Address  
 Home City  
 Home State  
 Home ZIP  
 Home Phone (*if provided*)  
 Utility ID (*provided by EKPC*)

**HOME RETAILER**

Retailer Company Name  
 Retailer Street Address  
 Retailer City  
 Retailer State  
 Retailer ZIP  
 Retailer Contact Person  
 Retailer Phone (*if provided*)

**EQUIPMENT**

Furnace kW  
A-coil Manufacturer/Brand  
A-coil Model Mo.  
Condenser Manufacturer  
Condenser Model Mo.  
Size (cooling tons)  
Ratings: HSPF, SEER, EER

- **Process incentive disbursements:** SBRA will work with EKPC to provide information required for each home in the EECF system. Information may be provided monthly for automated uploads in the EECF system or may be entered by SBRA. The EECF will generate monthly payments to SBRA based on the number of ESMHs completed on the EKPC system. Rebates will be paid by SBRA to the manufactured home plants.
- **Quality control:** SBRA will provide independent review, quality control and technical support to manufactured housing plants. Through existing protocols, SBRA's network of ENERGY STAR Certifiers will inspect in the field a sample of homes for compliance with the ENERGY STAR provisions.

**Cost Proposal**

The program cost estimate is based on **400 homes** qualifying for the rebate. The total cost of the program for the first 18 months would be **\$765,800** and is divided in two parts as follows:

- **Rebates:** A **\$1750** rebate shall be provided to manufactured home producers for each electrically heated ENERGY STAR home sold to an EKPC customer and equipped with a heat pump. The projected number of homes to be covered under the program is 400, for a total rebate budget of **\$700,000**.
- **Service Fee:** For services to conduct Task 1 Program Start-up activities and Task 2 Program Facilitation, Rebate Management and Ongoing Support as described above. Total payments for these tasks shall not exceed **\$65,800** and is divided in two parts as follows:

TASK	PAYMENT STRUCTURE	COST
1. Program Start-Up	Time & Materials, Not-to-Exceed	\$5,800
2. Program Facilitation, Rebate Management and Ongoing Support	Fixed-Unit-Price, Performance-based	\$150 per home, \$60,000 total

**Key Contacts**

Systems Building Research Alliance  
 1776 Broadway, Suite 2205  
 New York, NY 10019  
 www.research-alliance.org

Emanuel Levy  
 Executive Director  
 elevy@research-alliance.org  
 212-496-0900 ext. 140

Gwynne Koch  
 Contracts & Accounting  
 gkoch@research-alliance.org  
 212-496-0900 ext. 120

**Authorized By**

  
 Name: Emanuel Levy

Executive Director  
 Title

July 1, 2014  
 Date