



## **REQUEST FOR PROPOSALS**

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**Grants for Constructing or Remodeling  
Net Zero Energy Homes in WPPI Energy Member Utility Service Areas**

# REQUEST FOR PROPOSALS

## Grants for Constructing New or Remodeling Existing Homes into Net Zero Energy Homes in Member Utility Service Areas

### Introduction

WPPI Energy (WPPI) is a regional power company serving 51 customer-owned utilities. Through WPPI, these public power utilities share resources and own generation facilities to provide reliable, affordable electricity to 195,000 homes and businesses in Wisconsin, Upper Michigan and Iowa.

As part of our overall efforts to encourage public and community support for renewable energy, energy conservation, and energy efficiency, WPPI is soliciting competitive proposals for grants to help fund the completion of up to three net zero energy homes within our member electric utilities' service areas. WPPI has dubbed this initiative **GreenMax Home** and will use this term as a synonym for net zero energy home throughout this RFP.

A **GreenMax Home** is a home that has the potential to produce as much energy as it uses in a year. To the greatest extent possible, the energy consumption (heating, cooling and electrical) of the home will be provided by renewable energy sources.

Grants will be awarded to cover part of the incremental cost of designing and completing a **GreenMax Home** over the cost of constructing or remodeling a conventional Upper Midwest house. Incremental costs will include the design elements and technologies directly related to reducing energy use or producing energy through renewable resources. Since homeowners will see direct benefits from living in a **GreenMax Home**, they will be expected to pay a portion of the incremental cost to make the home reach net zero.

The home designs and occupant lifestyles required to achieve net zero energy use must be replicable and appropriate for a mass market, community-based setting.

Proposals must be for homes to be completed and occupied by December 31, 2010.

## **General Eligibility and Requirements**

Proposed homes must be built in a WPPI member utility service area. A list of WPPI member utilities can be found at the end of this document.

Proposals will be accepted from prospective homeowners, builders, architects and school groups. However, “spec homes” are not eligible due to the need to evaluate the expected occupants’ interest before a grant is awarded.

Homes may have an electrical battery back-up system, but will be required to be connected to the local electric distribution system.

Successful grant applicants and their consultant must work with a WPPI consultant/quality control expert to ensure proper installation of selected technologies and use of building techniques. The WPPI consultant will be provided at no cost to the applicants. The WPPI consultant will inspect the home during and after construction and will verify that the home meets specifications as stated in the applicant’s proposal.

It is strongly preferred that construction be completed by a licensed contractor. Any work not completed by a licensed contractor must be inspected and certified by the WPPI consultant as meeting the quality of craftsmanship that would be required from a licensed contractor.

The homeowners must allow monitoring of the home’s energy use and production for one year after moving in.

Applicants are encouraged to seek additional funding from local, state and federal sources. WPPI grants will be awarded towards the incremental cost of building a GreenMax home after all other funding sources are considered.

Applicants do not need to submit building plans and/or an electronic building file (i.e. REM/Rate™ file) with their proposal. However, these items will be requested for proposals that make the final round of consideration and will be required before a proposal is approved for funding.

Home construction must commence by September 1, 2010.

## **Informational Call**

A conference call will be held on January 7, 2010 to answer applicant questions regarding the RFP. To reserve a spot for the call contact Kay Schaub at [kschaub@wppienergy.org](mailto:kschaub@wppienergy.org).

The **GreenMax Home RFP** is posted at [www.greenmaxhome.com](http://www.greenmaxhome.com).

Grantees will be awarded the agreed upon funds at the following project phases.

1. Completion of necessary contracts/builders agreements
2. Completion of construction and following the WPPI verification and performance testing process.
3. The one-year anniversary of occupancy of the home and when energy use of occupants can be verified as meeting specifications in the grantees contract. In addition, grantees must also have complied with specific public relations agreements as specified in contract by serving as positive spokespersons for the **GreenMax Home**. For example, homeowners may be asked to make the home available for tours a minimum of six times the first year, with tours scheduled a minimum of 10 days in advance. The terms regarding promotion of the home will be negotiated with successful applicants and included in a final contract.

## Proposal Requirements

The questions are separated into two sections. Section 1 questions must be completed for all proposals. Section 2 questions are not required for the February 26, 2010 deadline.

However, proposals will be scored competitively using the system on page 7. Therefore, proposals including the information in Section 2 will have a better opportunity to score well. Proposals making the final round of consideration will be required to complete Section 2 questions.

Applicants must provide the following information and responses where applicable. When responding to numbered questions and statements, please be sure to indicate the corresponding number associated with each response.

### Section 1-Mandatory

Name of Applicant(s)	Name of Builder/GC	Lending Institution
Mailing Address	Contact Name	Contact Name
City, State, Zip	Mailing Address	Mailing Address
Day Phone	City, State, Zip	City, State, Zip
Evening Phone	Day Phone	Day Phone
Email Address	Email Address	Email Address

1. What WPPI member territory would the proposed home be located in?
2. Expected number of occupants of the proposed home.
3. Square footage of the proposed home, both finished and unfinished.
4. Do you expect the proposed home to be your primary residence for a complete year after moving into the home?
5. What date do you plan to commence construction/remodel of the proposed home?
6. What date do you expect the proposed home to be completed?
7. What date do you plan on moving into the home?
8. Successful applicants will have energy use limits in order to achieve a net zero energy home. Previous energy usage is typically a strong indication of a household's willingness and knowledge of the effort needed to achieve net zero energy use. **If available**, please attach copies of your last two years of energy bills. These should include all electric, natural gas, propane, or fuel oil bills as applicable. If currently unavailable they will be required before final contract is agreed upon.
9. Indicate number of occupants of your current home if question 8 is completed at this time.
10. Indicate square footage of your current home, both finished and unfinished
11. Explain why building or remodeling a home to achieve net zero energy use is important to you.
12. Describe the lifestyle choices you currently practice to reduce your energy use.

13. Describe any additional or different lifestyle choices you anticipate practicing in a **GreenMax Home**.
14. Describe any steps you have taken to ensure financing is available to build your proposed home.
15. What is your credit score? You do not need to submit documentation with your proposal. Documentation will be requested before a proposal is approved for funding.
16. WPPI is launching many highly visible projects to encourage public and community support for renewable energy, energy conservation, and energy efficiency. Raising awareness of technologies, building practices and lifestyle opportunities is a crucial component of these efforts. Successful applicants must agree to serve as positive spokespersons for the **GreenMax Home**. Please indicate your willingness to speak to others, including the media, about your home and your lifestyle.

### Section 2-Optional

Applicants will need the assistance of a Wisconsin ENERGY STAR<sup>®</sup> Home (WESH) Consultant or a comparable building science professional to complete Section 2. The fees for consultant services are the responsibility of the applicant. A list of Wisconsin ENERGY STAR Consultants who may offer these services can be found at: <http://www.focusonenergy.com>. Click on *Residential Programs: Building a New Home: Find a Consultant*.

17. Do you have a site selected or a lot purchased for the proposed home? If so, what features of the site will be utilized or are conducive to the construction of a **GreenMax Home**?
18. Provide information indicating proof of your builder's desire and ability to complete a **GreenMax Home**. If applicable provide a list of any WESH and/or Green Built certified homes constructed by the builder. Include information regarding any renewable technologies that were incorporated into these or other homes constructed by the builder.
19. With the help of your builder, describe in detail what *design elements* will be used to ensure that a durable, energy-efficient building shell is built for the proposed home.
20. With the help of your builder, describe in detail what *construction practices* will be used to ensure that a durable, energy efficient building shell is built for the proposed home.
21. With the help of your builder, list the mechanical appliance types, with corresponding efficiencies, that will be selected to provide heating, cooling, domestic water heating and ventilation for the proposed home.
22. List any other technologies or design elements, such as passive solar, that will be incorporated in the proposed home to help achieve net zero energy use.
23. What other green building practices – not related to energy use – do you plan to incorporate to reduce the environmental impacts of your proposed home?
24. Indicate what renewable technologies will be selected in order to offset the energy requirements of the proposed home. This may include techniques that are sustainable in nature, such as burning wood for space heating.
25. Indicate any other certifications you hope to achieve in the construction of the proposed home.

26. Estimate and itemize the total budget for the incremental design elements and technologies planned for the proposed home that are above the cost of building a conventional home. These technologies must be directly related to reducing energy use or producing energy through renewable resources.
27. Propose a grant amount. What portion of the estimated budget in #26 do you propose to receive from WPPI in order for you to construct a **GreenMax Home**? You may also consider and propose compensation for your role as a proponent for net zero energy homes in general and as a spokesperson for **GreenMax Homes**. Please include specific calculations and/or justification for how you arrived at your proposed grant amount.
28. Complete computer modeling of your proposed home and submit summary reports with your proposal. It is expected that you will use **REM/Rate**<sup>TM</sup> Home Energy Rating Tool. If another software modeling tool is chosen it must be approved by WPPI Energy as being an acceptable substitute for **REM/Rate**<sup>TM</sup> Home Energy Rating Tool. Summaries must include HERS index, MMBTU/yr for heating and cooling, heating intensity per square foot, and square feet of surface area of the building shell. The complete electronic building file will be required before a proposal is approved for funding.

## Proposal Evaluation Criteria

Proposals for **GreenMax Home** grants will be scored on a 100 point scale. Successful applicants will be those who score the highest based on the following criteria. Number in parentheses indicates corresponding points available for each category.

1. (25) **Design and energy use.** Home design, i.e. square footage, orientation, wall structure, insulation levels, ease with which the home design could be replicated in the mass market. Homes will be evaluated on the HERS index, heating intensity per square of surface area, and annual BTU requirement.
2. (25) **Lifestyle.** Demonstrated and expressed willingness and knowledge of the effort required to achieve and maintain net zero energy use. Previous and current energy use. Willingness to be part of efforts to promote the concept of **GreenMax Homes**.
3. (20) **Experience.** Builder's previous experience and ratings building high efficiency homes, i.e. ENERGY STAR and Green Built.
4. (10) **Grant request.** Total estimated budget for incremental costs and proposed grant funding.
5. (10) **Renewable energy.** Renewable technologies, as well as what percentage of the home's energy use will be offset with energy produced by the home.
6. (10) **Credit worthiness.** Financing/credit score of applicant.

## Proposal Deadline and Delivery Requirements

Proposals must be received by 4:00 p.m. on February 26, 2010.

Proposals may be sent by mail to:

**WPPI Energy  
GreenMax Home  
1425 Corporate Center Dr.  
Sun Prairie, WI 53590**

Proposals may be sent electronically to:

**kschaub@wppienergy.org**

## WPPI Energy Member Utilities

*Proposed homes must be built in locations served by one of the following WPPI Energy member electric utilities.*

Alger Delta Cooperative Electric Association, MI  
Algoma Utilities  
Baraga Electric Utility, MI  
Black River Falls Municipal Utilities  
Boscobel Utilities  
Brodhead Water & Light  
Cedarburg Light & Water Utility  
Columbus Water & Light  
Cuba City Light & Water  
City of Crystal Falls, MI  
Eagle River Light & Water Utility  
Evansville Water & Light  
Florence Utilities  
Gladstone Power & Light, MI  
Hartford Electric  
Hustisford Utilities  
Independence Light & Power, Telecommunications, IA  
Jefferson Utilities  
Juneau Utilities  
Kaukauna Utilities  
L'Anse Electric Utility, MI  
Lake Mills Light & Water  
Lodi Utilities  
Maquoketa Municipal Electric Utility, IA  
Menasha Utilities  
Mount Horeb Utilities

Muscoda Utilities  
Negaunee Electric Department, MI  
New Glarus Light & Water  
New Holstein Utilities  
New London Utilities  
New Richmond Utilities  
City of Norway – Department of Power & Light, MI  
Oconomowoc Utilities  
Oconto Falls Municipal Utilities  
Plymouth Utilities  
Prairie du Sac Utilities  
City of Preston, IA  
Reedsburg Utility Commission  
City Utilities of Richland Center  
River Falls Municipal Utilities  
Slinger Utilities  
Stoughton Utilities  
Sturgeon Bay Utilities  
Sun Prairie Water & Light  
Two Rivers Water & Light  
Waterloo Utilities  
Waunakee Utilities  
Waupun Utilities  
Westby Utilities  
Whitehall Electric Utility