



## NorthWestern Energy USB 2003 Residential Solar Electric Demonstration Program

Please return this application with a bid proposal and photos by **April 4, 2003**.

Residential PV Program  
Contact: Ray Schott 1-866-723-8677  
National Center for Appropriate Technology  
P.O. Box 3838  
Butte, MT 59702

Name of Building Owner:	
_____	
Owner Mailing Address:	
_____	
City:	Zip Code:
_____	_____
Telephone number: _____	
Email address (if available): _____	

Is this address the same as the address for the proposed solar installation?  
If no, what is the street address for the proposed installation?

\_\_\_\_\_

1. What is the active NorthWestern Energy electricity account number to which the solar electric system will be installed?  
\_\_\_\_\_
2. How many years has the current owner owned the building?
3. How many years has the current occupant lived in the home?
4. Will the system be mounted on a pole or roof?  
If a pole mount is planned, skip questions 5, 6, and 7.

5. On what story of the house or outbuilding will the array be mounted?
6. What is the roofing material? \_\_\_asphalt shingles \_\_\_wood shingles \_\_\_tiles \_\_\_metal \_\_\_other (if other, please explain)

What is the approximate age of the roofing material that the proposed PV array will be mounted on?

0-5 yrs. \_\_\_ 6-10 yrs. \_\_\_ 11-15 yrs. \_\_\_ 16+ yrs. \_\_\_\_\_

7. Are the roof and rafters in good condition? Yes \_\_\_ If not, please describe the roof's condition.

Describe the construction of the roof including the rafter and sheeting materials, and the rafter spacing.

8. Will the PV array be visible from the streets near your home?  
Yes \_\_\_ No \_\_\_
9. Are there obstacles (buildings, trees, power lines, utility poles, mountains, etc.) not shown in the site photos that could shade the PV array at some time in the future?  
No \_\_\_ Yes \_\_\_ (if yes, please describe)
10. How far is the proposed solar array location to the NorthWestern Energy electric meter?

- Describe the pathway that the wires will follow from the solar array to the main breaker panel. Include all walls and roofs that they must pass through or to which the must be attached.

11. Include photos that show the general location of the proposed installation and a panoramic view to the south. Also include photos of the mounting location. Please label orientation of all photos and indicate the proposed location of the solar array.

12. Please return a bid proposal with this application.

The proposal will include:

- Contractor's name and contact information;
- Proposed design, including capacity, manufacturer's name and model for all components, mounting structure, wiring diagram for the grid intertie;
- Itemized costs including time and material;
- Installation timeline; and
- A sunpath/shading analysis.