

From the Minnesota Department of Commerce, Division of Energy Resources:
<http://mn.gov/commerce/energy/images/Hiring-Renewable-Energy-Installer.pdf>

Questions to ask a Renewable Energy Installer

- What is included in a solar site assessment? How will I know if my site is appropriate?

Our solar professional will visit your site, conduct a visual evaluation and use Pathfinder to determine the optimum capabilities for your location.

- Do you perform an energy use evaluation to help me save energy or do you have suggestions about where to seek this service?

We base our solar PV designs on the average usage records of your household.

For suggestions on how to save energy in other ways in your home, Zinniel Electric are licensed full-service electricians! This means we can evaluate and estimate for other electricity-saving projects in your home! Call today to schedule an estimate for lighting upgrades and retrofits to more efficient models, service panel upgrades, or any other electricity-saving project you have in mind for your home or business.

- Is the installer who will be performing the work NABCEP (North American Board of Certified Energy Practitioners (www.nabcep.org)) certified?

Yes. Zinniel Electric is a NABCEP certified installer since 2011. Tim Zinniel currently holds NABCEP Certification # 032611-351, as well as a Master Electrician license in 3 states: Minnesota, Iowa, and Wisconsin.

- Approximately how much energy will the system produce and what portion of energy use might I expect the system to offset annually? This is also known as the solar fraction. Will the system measure and track energy production? How do I manage loads in order to achieve the predicted solar fraction?

Your Zinniel Electric PV project proposal will include the estimated percentage of your energy usage covered based on the type of PV module, system size, your usage history, and the average sunlight in your area.

Tracking solar production is called “monitoring” and involves special hardware that is built into your Project Proposal. Zinniel Electric will customize your project to suit your needs and to help you achieve your energy-saving goals.

- What is the current monetary value of the energy saved/generated?

This varies by size of system selected. For PV installations <40kW, monetary value is dollar for dollar with net metering.

- Does your bid reflect the total cost of the system? Are structural engineering considerations included? Under what circumstances will I be charged extra for unanticipated costs? What incentives are available to offset the system cost? Who handles the paperwork for incentives?

Zinniel Electric is equipped to handle all the product installation and wiring needs for your PV system. If required by local building codes, Zinniel Electric can facilitate any engineering needs with local engineering firms. Structural considerations like roof replacement, for instance, would require consultation with a specialist in that field.

Zinniel Electric also works with our customers to complete the paperwork and necessary steps to take advantage of the solar rebates and rewards available to you so that you can get the most out of your investment. We are happy to answer your questions and walk you through each step in the process!

- Will you be responsible for obtaining the appropriate permits? (For example, building, plumbing, electrical, zoning, as required by the local jurisdiction.)

Local government organizations have different requirements for building permits. Zinniel Electric will work with you to determine what permits, if any, are needed for your project.

Our PV Project Proposals already include the fee for the required Electrical inspection permits with the State of Minnesota.

- Do you provide a maintenance or service warranty? How do you handle manufacturer warranties? What maintenance is recommended? How long can I expect the system to last?

Although it may vary by manufacturer, most equipment is warranted for 10-15 years, and the solar production is warranted for 20-30 years.

Zinniel Electric maintains a service warranty on our installation for (1) full year after project completion.

New Ulm Utility Customers – New Ulm Public Utility requires an interconnection inspection every 2 years for PV systems tied into their grid. Zinniel Electric is fully equipped to handle this maintenance requirement, but this ongoing service does not fall under our regular service warranty.

- How long have you been in business? How many installations have you done? Do you have references I can contact? Photos of previous installations?

Zinniel Electric has been a full-service electrical contractor in southern Minnesota since 1978, with experience and client references in all types of electrical service! We began working with Solar Electric in 2010, and are happy to provide you with specific references and photos of our past PV projects upon request. Examples are also available on our website: www.zinnielectric.com

• When could the installation begin? From start to finish, including utility or permit approvals, how long might the installation take? (Permitting and incentive application processing vary by location.)

- 1) Schedule a site visit to receive an estimate today! This is the first step.
- 2) From the date you contract our services, Zinniel Electric will work to complete your installation within 2-3 months:
 - a. Ordering and receiving PV material from manufacturer: 4-6 weeks, on average
 - b. Installation by Zinniel Electric: 4-6 weeks to complete the installation.

• For solar electric: Do you work with my electric utility to complete grid interconnection? Are there interconnection costs? (Utility interconnection costs and approval time vary.)

Metering/Interconnection to existing Utility Grid: 2-4 weeks (This “wait time” depends upon your Power provider and the rebate program you are enrolled in.) Zinniel Electric does our utmost to ensure the required paperwork and inspections are in order so this step can be completed in a smooth, timely fashion.

• Will you provide an owner’s manual upon commissioning the system?

Equipment manuals are provided with our installation. Zinniel Electric is happy to walk through any questions or concerns you may have during and after your project is installed.

As stated earlier, we also provide a one (1) year service and maintenance warranty on all of our Solar PV installations.

• If there is a blackout, what options do I have for backup power and how much do they cost?

Battery-backup options are available for most PV installations. Please notify Zinniel Electric up-front if this is your wish as we can provide pricing and options as part of your project proposal.

It is a good idea to speak to more than one contractor before making a final decision. As with any building improvement, it is important that you are comfortable with your contractor. Be sure that each bid specifies system type and size, expected energy production, maintenance requirements, and installed cost.

Disclaimer: The resources listed above are not an endorsement by the Minnesota Department of Commerce. Consumers are advised to perform due diligence in selecting a contractor such as seeking references, verifying licensing, etc.