

# **ENGINEERING SERVICES**

PROFESSIONAL SOLAR THERMAL ENGINEERING



## **DOCUMENTATION**

Engineer approved and PE stamped documentation, diagrams and permit applications for your solar installation

## **CUSTOM DESIGNS**

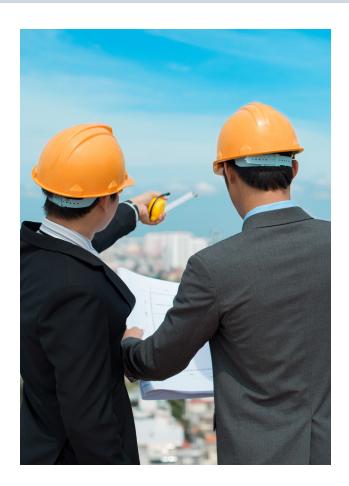
Solar thermal systems for residential, commercial and government designed to your specific needs & budget

## **ENERGY MODELING**

Complete TSOL energy modeling packages and solar thermal feasability studies for solar projects of all sizes

## **PROVEN TRACK RECORD**

SunMaxx has provided engineering and material support for more than 9,500 solar thermal installations worldwide



## COMPLETE

## **Project Management**

Through our partnership with IGS (Intelligent Green Solutions) we are able to offer every customer complete solar installation project management.

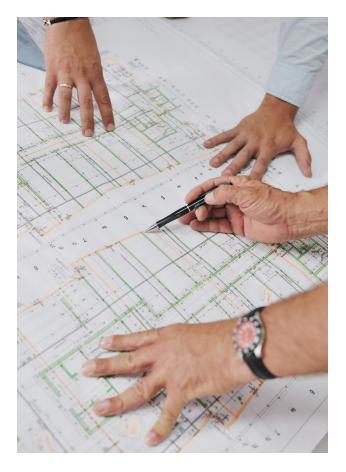
Let IGS (Intelligent Green Solutions) take the lead in your next solar thermal installation. Keep your installation on track, on time and on budget by letting IGS handle the paperwork, applications and all the other details that too often hold up (or kill) a great solar thermal installation.

#### **SERVICES INCLUDE**

- Complete Project Management
- IGS Assumes The Role of Lead Contractor
- NYSERDA (Or Other) Application(s)
- Full System Sizing, Design & Documentation

#### BENEFITS

- Keep your solar installation on track, on time and on budget
- Eliminate the hassle of applications, sizing, contracting and managing
- Proven track record managing solar installations both large and small



## **COMPLETE**

## Solar System Engineering

Using the latest solar thermal model software (TSOL), our team of engineers can provide you with a detailed annual energy model of your new solar thermal system using historical climate data to calculate anticipated collector output and system performance.

A detailed energy model is critical in sizing and designing large commercial and municipal solar thermal systems and is the only accurate option for determining the anticipated financial savings that your system will generate.

#### SERVICES INCLUDE

- Detailed Piping Diagram
- Roof Layout
- Detailed Bill of Materials
- Computer Simulation (System Performance)
- Collector Mounting Detail
- Operations & Maintenance Manual
- Live Phone / Email Support

#### **BENEFITS**

- Ensure that every aspect of your project is engineered professionally
- All necessary documents for budgeting, permit applications, incentive applications and maintenance in one package



# **FEASIBILITY**

## **Studies And Reports**

Determine if solar thermal is feasible for you and your location (without sinking a fortune into engineering firms or solar installers).

### **SERVICES INCLUDE**

- Site Review & Solar Suitability Determination
- Basic Information Packet on Solar Thermal Systems
- Estimated Potential Energy Savings Calculations
- Instructions & Guidance On Moving Forward & Installation Process
- Preliminary System Sizing (With A Rough Quote For Materials)

#### BENEFITS

• Determine if solar is feasible for you before making a large investment



## **DIAGRAMS**

## Piping & Roof Layouts

The SunMaxx engineering team can provide you with professional, detailed piping and electrical line diagrams. These are critical because they allow contractors to ensure that the designed system is installed correctly, and that all required components are installed where they need to be. All documents are PE stamped and ready for submission.

## PIPING DIAGRAMS INCLUDE

- Number of Collectors
- Storage Tank Specifications
- Pumping Requirements
- Piping (Including Pipe Sizes)
- Bill of Materials
- Layout of All Necessary Components For a Complete System

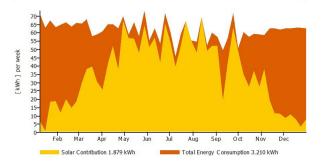
## **ROOF LAYOUTS INCLUDE**

- Number of Collectors & Mounting Details
- Array Dimensions & Spacing

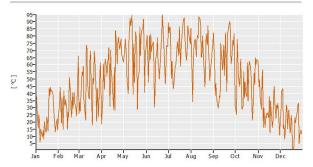
#### BENEFITS

- Ensure installation according to professional engineering design
- Ensure that all system components are installed correctly
- Ensure the system functions according to specifications

#### Solar Energy Consumption as Percentage of Total Consumption



#### **Daily Maximum Collector Temperature**



## **ENERGY**

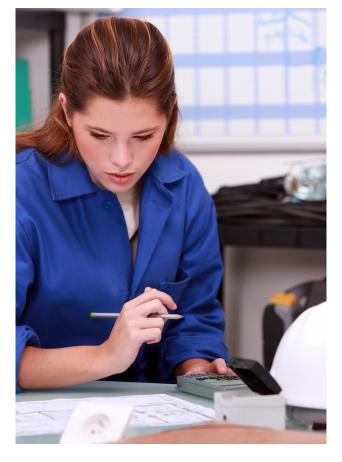
## **Modeling Reports**

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#### **BENEFITS**

- Highly accurate anticipated system performance and energy savings based on independent testing performance figures and historical climate data
- Detailed financial savings breakdowns, rate of return calculations and more to help in the sales process
- Peace of mind from knowing the financial impact of your new SunMaxx solar thermal system before you buy



# **TECHNICAL**Support & Troubleshooting

Our engineering team has the experience to diagnose and identify any issues you may have with the installation, operation and maintenance of your solar thermal system.

Whether during installation, routine maintenance or in case of a malfunction of the system, the SunMaxx engineering team is here and ready to assist you. Our team has years of experience troubleshooting SunMaxx solar thermal systems and creating simple, easy-to-follow solutions to nearly every problem you will run across.

Site visits & live consulations are available (rate varies depending on location).

# **FREQUENTLY**Asked Questions

## **HOW LONG DO ENGINEERING SERVICES USUALLY TAKE?**

The type of services needed will affect the amount of time it takes to complete. However, 1-2 weeks is a fair estimate for most standard engineering services projects.

#### WHO PERFORMS THE ENGINEERING SERVICES?

SunMaxx employs a team of the best in-house solar thermal engineers in the industry. They have years of experience in engineering and solar thermal system design and sizing.

#### WHY WOULD I WANT TO GET ENGINEERING SERVICES?

Engineering Services from SunMaxx is the best way to guarantee that you get the solar thermal system that is sized and designed for your specific location and needs. It also allows to carefully select the right individual components to ensure your solar hot water system delivers maximum performance and the highest possible return on investment.



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