



# 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 feasibility 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

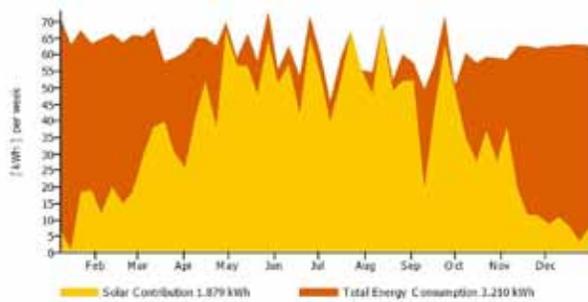
### BENEFITS

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

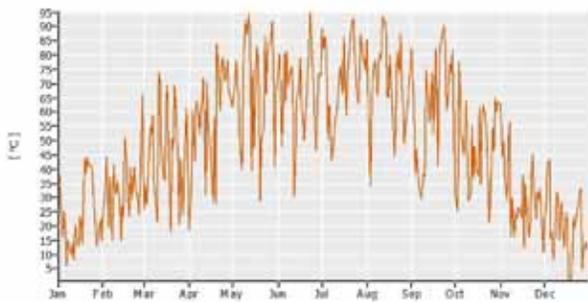
# ENERGY

## Modeling Reports

Solar Energy Consumption as Percentage of Total Consumption



Daily Maximum Collector Temperature

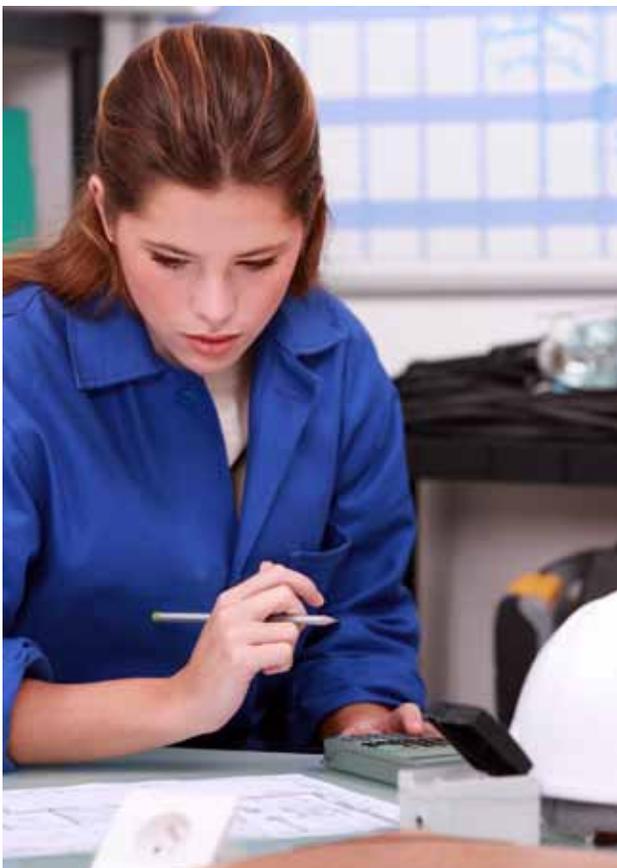


Using the latest solar thermal model software (TSOL), our team of engineers can provide you with a detailed annual energy model of your new solar thermal system using historical climate data to calculate anticipated collector output and system performance.

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.

### 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 consultations are available (rate varies depending on location).

# GET STARTED WITH ENGINEERING SERVICES

Put Our Team Of Solar Engineers To Work For You Today

## Engineering Services Fees

**\$500**

Engineering Services  
Startup Fee

**50%**

Of Fees Applied To The  
Purchase Of Your System



## OUR ENGINEERING SERVICES PROCESS

Our Team & Process Make Getting Solar Easier Than Ever



Ready To Get Stareted? Call **1.877.786.6299**



## PE STAMPED Mechanical Layouts

Complete solar system mechanical layouts cover the entire solar system from the solar collectors on the roof, through all of the piping and into your existing boiler. All of the key components of the solar thermal system will be laid out in the Mechanical Layout.



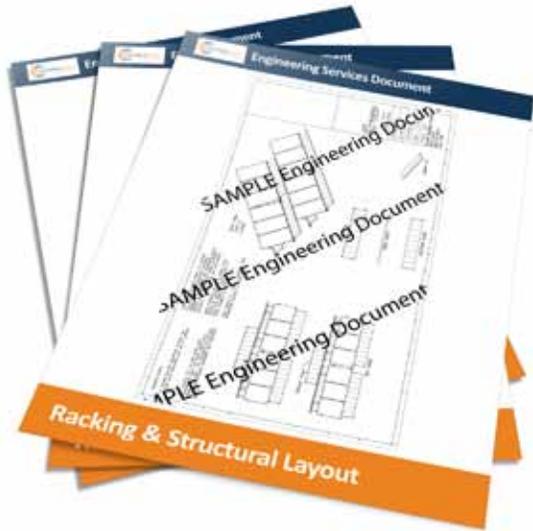
## PE STAMPED Electrical & Wiring Diagrams

A detailed view and instruction for all of the wiring and electrical components needed to make your solar thermal system function properly. Your installers will use this to ensure that all of the electrical work on your solar thermal system is up to code and inline with the engineer's expectations.



## PE STAMPED Construction Detail Drawings

Detailed drawings and instructions for the key components in your solar thermal system. Typically, this will include the pump station, storage tank and other key components where piping and electrical connections are critical.



## PE STAMPED

### Racking & Structural Layouts

Detailed views of the mounting hardware and orientation for your solar collectors and solar collector arrays. This will typically include a detailed view of individual collector mounting as well as full roof layouts of your solar collector arrays as they will be laid out on the roof.



## TSOL

### Energy Modeling Reports

Detailed TSOL energy models that illustrate the energy production that our engineers anticipate from your solar thermal system and as well anticipated financial savings based on your current energy usage and costs.

# 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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