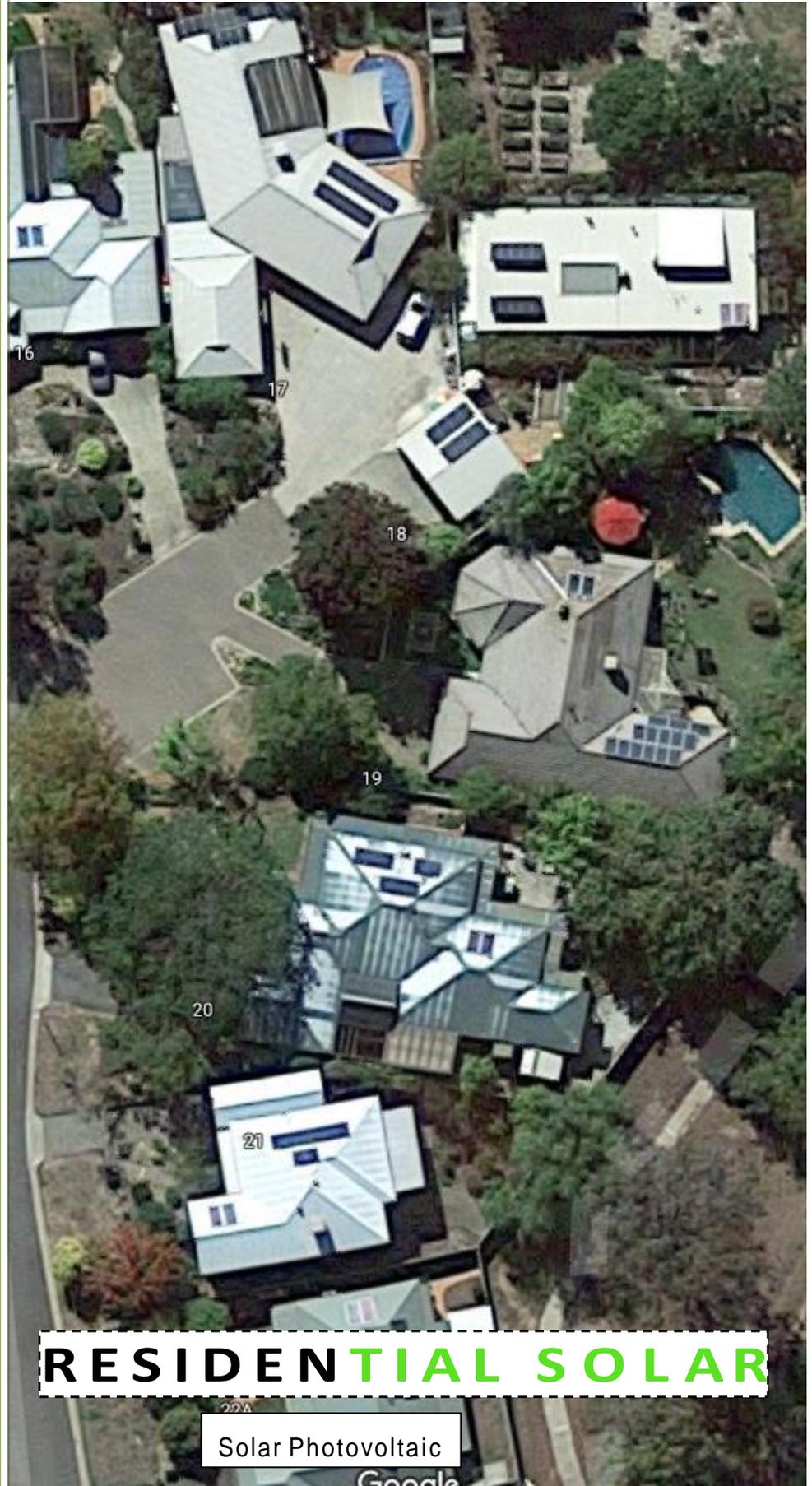


N O R T H E A S T



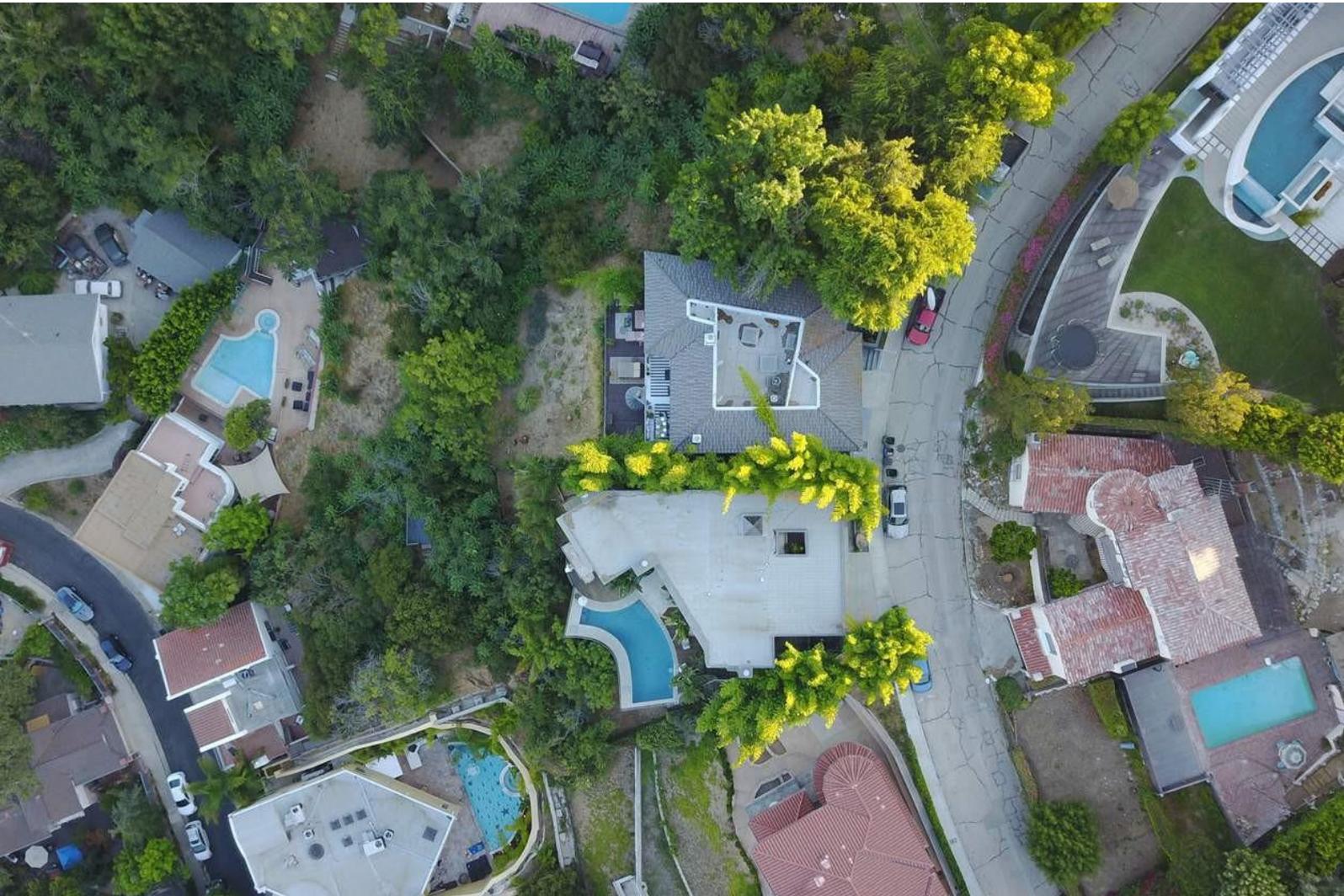
NORTH EAST
HEATING COOLING
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RESIDENTIAL SOLAR

Solar Photovoltaic

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With energy prices skyrocketing as every day passes, it is forcing us to look to renewable energy to help bring household budgets back under control. Unfortunately, that can create fear and confusion to many people as they do not know where to start when looking into solar panels and inverters.

With terms like Solar PV, on grid, off grid, or even inverters there can be a lot to take in, decipher and try to make the best decision for your home. Below we will break it down and walk you through the ins and outs of a solar system.

The best place to start is with how does a solar system work?



SOLAR PHOTOVOLTAIC

Solar Systems are commonly referred to as solar photovoltaic or solar PV. Solar photovoltaic panels are made up silicon cells, wires and glass in essence and requires sunlight radiation to create electricity. When the sunlight hits your solar PV panel it creates an electric field. That electricity that is created flows into a conductive wire and down into your inverter.

Now your inverter is the heart of any system. The reason it is so important is because it takes the direct current (DC) electricity that our solar panels use into alternating current (AC) that our homes run off. Without an inverter we simply cannot use the sunlight to power our homes.

Now there are two types of inverters, string inverters and micro inverters. A string inverter is where all your panels are connected together and wired back to one inverter also known as a string inverter and this is usually found down on ground level.

Your other alternative are micro inverters. Micro inverters are a little bit different in that there is one small inverter for every panel that is on your roof and it is located under the panel up on the roof. Either types of inverters do exactly the same job in converting DC power to AC but go about it in a slightly different way.

There are pros and cons to both types of inverters, but you should contact the friendly team at North East Solar to help guide you through that process.

Without an inverter we simply cannot use the sunlight to power our homes.





Grid Power vs Solar Power

Once the electricity is converted into AC current, the inverter then sends the electricity through to your electrical switchboard to then feed into your home. This help us power the household items we use every day such as our fridges, washing machines, and microwaves.

As long as you haven't undersized yourself with your solar system (always get a professional like North East Solar to help you with this), you should create enough energy on a sunny day to be completely self-sufficient during sunlight hours. But what happens to the excess power I create you may ask? Well that leads us into our next section....

you should create enough energy on a sunny day to be completely self-sufficient during sunlight hours.

Whilst our solar panels are fantastic and produce energy for us during the day (where you are not relying on the grid for power) we know that sunlight doesn't last us all day. During the times when we don't have the benefit of solar power to help us, we rely on the grid or the old poles and wires you see on a day to day basis. This is traditionally where we have received the power to run the electrical appliances in our homes. The grid for the most part is powered by the fossil fuels such as coal but even that is now slowly but surely switching to renewable energy.

When we produce excess solar power during the day it feeds back through your electricity meter and into the grid. You will get paid by your retailer for that energy you are putting back into the grid, however the per kWh rate you get paid may change from retailer to retailer so be sure to ask that question of your electricity provider.



WHY DO YOU NEED SOLAR PV?

As mentioned earlier, energy prices are skyrocketing with every passing day and a solar system on your roof is now becoming a very affordable solution to reducing those bills. On average, the return on installing a solar system is between 4-7 years (depending on where you live) with a cost reduction of potentially approximately 30-40% per year to your bill.

For some people, it may not just be about money. At North East Solar we have people contact us that they want to do their part for the environment and reduce their reliance on fossil fuels. With their solar system the ability to create beautiful clean energy is a major attraction!

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“

**No surprises.
Solar done the right way.**

”

A new approach giving you back control of your energy bills and lets you focus on the important things in life. You!



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