

GOING SOLAR - Please complete the following steps in sequence:

1) Read the Solar FAQ. <http://www.solaraustin.org/is-solar-right-for-you/>

May need to cut back trees. Consider removing unused, or relocating satellite dishes if in prime locations.

2) DETERMINE THE SIZE OF SOLAR ENERGY SYSTEM REQUIRED. Factors to consider include:

- a) **ENERGY EFFICIENCY of Household- This step is highly recommended and required by** Austin Energy customers for homes 10 years or older to ensure the property meets high energy efficiency standards to minimize your energy needs to fully benefit from solar. Oncor has sometimes required this as well. Rebates are often available for this test & on possibly on some of the required improvements.

Weatherization improvements include: Solar Screens on unshaded South and West facing windows; attic insulation; solar attic fans; radiant barrier in attic (stapled product is superior to paint); caulking/sealing windows, plumbing and duct work; weatherstripping around doors, windows and electrical sockets to exterior walls; replacing all light bulbs with CFL's or LED lights; window treatments (thermal curtains, insulated shades, window film); smart thermostats like NEST with remote access technology.

Other improvements replacing fixtures when maintenance is required or optimal with: light covered roofing, light colored exterior paint; highly efficient appliances (HVAC, TV's, Refrigerator(s), Oven/Extractor, Washer/Dryer); insulated garage doors; efficient Low-E windows; Solar Water Heaters.

- b) **Sum your TWELVE MONTH kWh usage HISTORY** from your Electric Utility Statements. You may which to Subtract any estimated savings from Energy Efficiency Improvements made above and Add any anticipated additions like charging an Electric vehicle. It's estimated a typical Austin home during peak electricity usage in the summer uses up to 5 kW of electricity at any given moment. Thus this size would provide a good base sized system. Austin Energy customers should note a small system will still yield large paybacks as solar energy generated is credited at the average rate which effectively lowers

3) Contact at least three Solar Installer for Proposals.

See complete list of solar installers.....

- a) Compare proposals based on: Materials, Price, Design, Overall Professionalism, Customer Feedback (Yelp, neighbors, etc), Warranties on Labor/Materials, financing options and initial outlay, and Comfort with the installer. For ONCOR customers check to see they've calculated the investment return based on excess solar energy buyback programs since many installers use the Austin Energy solar energy model for financial comparisons.

- b) Evaluate the financial return of your installation for free by going to <http://pvwatts.nrel.gov/> .

4) Select Energy Provider/ Company:

It's important to understand your Solar Energy In/Out flows which impact your energy cost/return when selecting your energy provider. This may help determine the size of the solar energy system you desire. (See attached diagrams).

AUSTIN ENERGY service area - This is your utility and energy provider. You are billed for your total electric consumption at the standard residential rates (does not distinguish if power came from your solar panels or the City of Austin). You are then paid for your total solar energy production at the Value of Solar Rate, currently at 12.8 cents. If your solar credit exceeds your electric energy bill usage, the credit will roll over to the next month. At year end this will reset to zero. Thus your generation should be no larger than your estimated yearly usage.

ONCOR service area- This is your service line provider if you don't have Austin Energy. Energy Usage is calculated by a complicated In/Out Energy Flow (see diagram) continuously. The net result is that both your Energy Usage and Excess Solar Energy Generated amounts will be larger than you anticipate as generated energy does not directly offset the usage energy except during daylight hours.

Appliances and plug in vehicles should be run during daylight hours to provide the greatest payback benefit. To get paid for your excess solar energy power generated, it is important to sign up for an electric provider with a Purchase Excess Renewable Energy plan and sign an Interconnection agreement. Oncor provides the in/out energy flows to the provider once the Interconnection agreement is signed and processed.

Compare plans at <http://PowertoChoose.org/en-us/Plan/Offers>. Enroll in the appropriate solar plan. Anticipate the difference between the price charged for Energy and that Paid for Excess Usage in your payback analysis and when determining your total system size.

Note that at this time the best excess solar energy payback for those in the ONCOR service area appears to be Green Mountain Energy, whose plan buys and sells energy to you at the same rate, up to a maximum of 500 kWh of Excess Energy. Beyond 500kWh per month, the buy back rate is reduced by 50 percent. If you have a larger solar energy system or need to generate significant usage at night, TXU or Reliant may provide the better payback; at this time those payback rates are \$0.075 per kWh, and set to the NYMEX natural gas prices, respectively. Note the TXU program is limited to systems sized at 10 kW or less.

It's estimated that during peak electricity usage in the summer, a typical Austin home uses up to 5 kW of electricity at any given moment.

Note ONCOR solar energy rebates are out for 2014. The beginning of December 2014 they will start a wait list for 2015 rebates.

5) Determine your Best Financing Option:

a) Cash or credit card. Use a credit card for your incentive program and pay off promptly for cash purchases.

b) Loan - several options include:

- your Bank or Credit Union. Note Velocity CU has teamed up with Austin Energy with a Solar PV Loan.

For information phone 512-469-7060 or visit the links on the Austin Energy website.

- many Solar Installation companies provide low cost financing.

- Vendors such as TreeHouse Home Improvement store use volume purchasing power with a certified installer for set systems and provide low cost financing (2.99% currently) for the net cost of the system and zero percent interest loans for the Federal Tax rebate portion and no money down options.

c) Lease - some solar companies offer leasing structures. These are flexible and offer no or reduced initial capital outlay. Note the solar savings are reduced due to the third party involvement. Additionally, the ACC/HOA is wary of them due to a possible conflicts which may arise when selling your house.

6) Submit Wells Branch Architectural Control Committee form to 3000 Shoreline or email as specified on the form to the Attention: Wells Branch MUD - ACC Green Improvements Program. To obtain the form:

www.WellsBranchMud.com -> Other Resources -> Architectural Control Committee -> ACC form.

Complete the ACC form and include a copy of the Layout (drawing /photo) and Materials List (both from your solar installer's proposal). Note more restrictive areas of WB may require signatures from immediately surrounding neighbors (stating they've viewed the proposed drawing and have no objection to the installation). If this approval takes more than two weeks contact: (ACC personnel here).

7) Schedule Meter Reprogramming with ONCOR (Installer will Arrange this). Schedule Installation.

8) Installation. System is installed. ONCOR inspects and approves installation. Installer explains the operation and provides documentation.

9) File Agreement for Interconnection and Parallel Operation of Distributed Generation for ONCOR service customers and their chosen Energy Utility in order to obtain payment for the excess solar energy generated. This document should be initiated and completed by ONCOR and your Solar Installer. Phone to accelerate this process. Alert them that the Customer CIS address for many WB residents is Round Rock while the Customer Address is Austin. You must sign and submitted this back to them for processing.

<http://www.oncor.com/EN/Pages/Interconnection-Applications.aspx>.

Notify your chosen energy utility that this Interconnection agreement is in process.

- 10) **Solar Service Installer submits final application form to ONCOR.** If system meets all requirements, ONCOR sends incentive rebate to solar provider.
- 11) **Insurance Company.** Notify your insurance company of your home improvement project. This usually results in a slight increase in your yearly premium. The Tax Appraisal District may submit this detail to your insurance company.
- 12) **File a Property Tax Exemption (Form 50-123)** with the Travis Central Appraisal District, 512-834-9138 for the initial exemption. Subsequent renewals are due yearly. Reminders are usually sent by Travis Central Appraisal District office as well as your Solar energy installer.
- 13) **Review Electric Usage Statements and Solar Edge monitoring equipment** to ensure your system is operating as planned and you are getting credits for your solar energy power generated.
- 14) **File for your 30% Federal Tax Credit for Solar .** If you are unable to use the entire credit in one year, this can be carried forward into future years until 2016 (possibly longer). Use IRS Form 5695. Keep a copy of your solar system design, materials and cost for this return.