

NetSolar shoots for platinum

Construction begins on LEED certified homes

Editor's note: This is part one in a series following the construction of two homes aiming for LEED platinum certification. The homes are being built by NetSolar Construction in the Metro Verde area.

By **Beth Sitzler**
Las Cruces Bulletin

As the first phase of Metro Verde begins to take shape, builders wanting to reach that next level of green construction and energy efficiency are flocking to the area.

One such company is NetSolar Construction, owned by cousins Javier Cabrera and Emmanuel Dominguez.

"These are our model homes," Dominguez said. "We're trying to make homes that are affordable. We want to take advantage of tax credits to put that money back into the homes."

The duo has 10 lots in the first phase of Metro Verde, with construction on two plots – 3602 and 3638 San Clemente – just beginning.

"We got our building permit Thursday (Aug. 9) and broke ground today (Wednesday, Aug. 15)," Cabrera said. "Both lots are ready. The plumber is starting today."

The homes are being constructed so when completed, they will meet not only LEED platinum certification, but also Energy Star 3.0, Indoor Air Quality Certification and Water Smart Sense certification.

Occupying corner lots on the street, the homes will be built at the same time, with 3602 San Clemente starting a week before 3638 San Clemente.

"I think it's going to be easier to build," said Cabrera of their decision to do the two projects simultaneously. "That way, when the plumber is finished with one house, he can just move on the next one. And the same thing with the concrete guy."

Pouring through the latest material on green construction, the company, which uses structural insulated panels (SIPs), plans to incorporate energy-efficient and environmentally friendly products, gadgets and building concepts throughout the homes – beginning with the foundation.



Las Cruces Bulletin photos by Beth Sitzler

NetSolar Construction employees Ruben Gutierrez and Todd Hensley carefully cut an opening for piping in structural insulated panels that will be used to build the home at 3602 San Clemente.

"We have a perimeter slab insulation," Cabrera said. "It has an R-value of 5."

In addition to the slab insulation, a vapor barrier – which is a plastic membrane – will be set in place before the foundation is poured.

"It will help with the air quality," Dominguez said. "You don't have humidity entering the concrete slab."

The SIPs, which are fabricated at the company's warehouse off Weisner Road, measure 6.5 inches wide, giving the walls an R-value of 24. Cabrera said the home at 3602 San Clemente will use 88 panels.

"We recycle our materials," Cabrera said. "The waste from the panels is returned to the factory."

Tankless water heaters with manifold system will be used in each home, as well as water softeners – a standard feature in NetSolar Construction homes, Dominguez said.

"There will be no more than 40 feet between the faucets and the water heaters," said Cabrera, adding that the less space the hot water has to travel, the less will be used.

The faucets and other fixtures, such as showerheads and toilets, will be low flow and dual flush, allowing users to conserve water.

The homes will include photovoltaic systems. Cabrera said they will use 2-kilowatt systems on each house.

"It's a starter kit," he said. "Owners can upgrade and add more panels to later."

Not only utilizing solar panels, the homes feature passive solar designs, taking advantage of their north-south orientation.

"The patio will be shaded in the summer, but sun will be let in the living room in the winter," Dominguez said.

Inside, LED lighting will be used in the common areas while compact fluorescent light bulbs will be used in areas such as the bathroom. Cabrera said solar tubes will also be used instead of skylights.

"They're more energy efficient than skylights and they work the same," he said.

Featuring "a lot of gadgets," the homes will include efficient, Energy Star appliances and high-efficiency HVAC systems as well as a

recycling bin area, Cabrera said.

While both of the homes on San Clemente will include the same green and energy-efficient features, they will showcase different styles.

"We wanted to show our different styles," Cabrera said. "People think sometimes with panels that we can only do square homes."

The home at 3602 San Clemente – which includes 2,526 square feet of conditioned space, and 3,550 square feet total – will feature a contemporary Southwest style, Cabrera said.

"It's going to be three bedrooms and two-and-a-half bathrooms and it will have a flex room," he said.

While 3638 San Clemente will feature a similar layout with three bedrooms, two-and-a-half bathrooms and a flex room, it will be designed in a Spanish colonial style. This home, which has a preliminary HERs rating of 28, will occupy 2,487 square feet of conditioned space and 3,597 square feet total.

The homes will be in the \$265,000 to \$275,000 price range, Cabrera said.

After the houses are plumbed, the concrete slabs will be poured in the coming weeks. The next step, Cabrera said, is to start framing the home and installing the SIPs, which will begin in about two or three weeks.

With work on the homes beginning to pick up steam, the NetSolar duo plan to have them completed within a few months.

"Both houses have to be done by November," said Dominguez said, adding that they have set Oct. 31 as their finish goal.

"(We set this deadline) for financial reasons," Cabrera said. "If we finish before November, we can file a LEED tax credit for this year. If we miss it, we have to wait another year."

The duo said the tax credit will give them back \$9 for every square foot of both houses.

Dominguez said NetSolar Construction doesn't plan to stop at LEED platinum certification – "In the future we want to make net zero homes," he said, explaining that a net zero home produces as much energy as it consumes.

The production team on the projects include Dominguez as construction manager, Cabrera as designer, Miles Dyson of Inspection Connection as the green verifier and Realtors Renee Frank and Kathy Pass as sales consultants/EcoBrokers.

For more information on NetSolar Construction, email hoes@netsolarllc.com or visit www.netsolarllc.com.



NetSolar crews work on the lot at 3638 San Clemente, one of two lots that will feature LEED platinum certified homes.

NetSolar Construction owners Javier Cabrera and Emmanuel Dominguez have begun work on two homes in the Metro Verde area that aim to reach LEED platinum certification.