

Sonoma Mountain Village

Promoting sustainable community living

Advertisements talking about green community villages and sustainable construction keep popping out from every magazine, newspaper, hoarding and television, but giving form to the idea depends on the executioner. Brad Baker of Coddling Enterprises is one such man who has gone out of his way to ensure he delivers what the promotional material of Sonoma Mountain Village promises

By Geof Syphers










Five years ago, Brad Baker set out to build a sustainable community in Northern California. As CEO of Coddling Enterprises, his vision was to take an abandoned Agilent technology campus and turn it into a small solar-powered village, complete with jobs, grocery, daycare, parks, shops, a theater and hotel. The village, called Sonoma Mountain Village, would provide 1,892 homes, 4,400 jobs and be designed so that all basic services were within a five-minute walk of every home and business. But there were a few challenges.

A special study detailing the environmental impacts of the project found that the greenhouse gas emissions from cars and the tractors and trucks for construction would be significant, and no reliable supplier of biodiesel was available. Mr Baker didn't want this to get in the way of his project, and co-founded Community Fuels, a biodiesel production facility that is now the largest supplier in California. Community Fuels is believed to have the capability of producing fuel from a wide range of feedstock, including chicken skin, grape seeds and more traditional sources like soy.



Tidal Resource



-  Zero Carbon
-  Zero Waste
-  Sustainable Transport
-  Local & Sustainable Materials
-  Local & Sustainable Food
-  Sustainable Water
-  Natural Habitats & Wildlife
-  Culture & Heritage
-  Equity & Fair Trade
-  Health & Happiness

The next challenge was that not a single local building supplier had a truly sustainable solution for reducing environmental impacts from foundations and framing. Each option on the market had a significant problem. Stick framing with wood used an acre-and-a-half of mature forest and made homes that were so heavy that foundations with high amounts of cement were required, increasing global greenhouse gas emissions due to the energy-intensive process required to make cement. Concrete



construction was worse still. Steel framing was a bit better, but still had problems with proper insulation, use of higher-energy virgin metal, and significant waste.

Not to be deterred, in 2007 Mr Baker launched another company, Coddling Steel Frame Solutions, to build and operate a 50,000 square feet factory right on the site of Sonoma Mountain Village. This factory uses the recycled steel from cars to build lightweight panelised building sections in a zero carbon, zero waste process. The method allows for high levels of energy efficiency due to thick exterior insulation and a tight fit. The process and the company became so successful that Genesis Worldwide now offers a turnkey factory set-up to developers all around the world.



BioRegional, the managing organisation behind One Planet Communities, a global initiative to endorse and support the world's greenest neighbourhoods. Greg Searle, Director of BioRegional North America, sought out Mr Baker and his team to explore whether the Sonoma Mountain Village project could take the extra step from deep green to truly sustainable.

The Sonoma Mountain Village is officially the first Planet Community in North America. The construction of homes will begin by the end of this year or 2010.

The latest challenge was that the kind of high-paying green jobs Mr Baker was looking to attract to Sonoma Mountain Village were hard to find. Local employers were either green or they paid well, but generally not both. To improve the quality of life in the region and meet his social sustainability goals, Mr Baker launched a non-profit small business incubator focussed entirely on sustainable resource technologies. The 30,000-square feet facility is now home to 26 start-up companies doing work in energy efficiency, solar power, green marketing, and other related fields. The average salary is nearly double the national average.

The model of addressing barriers to sustainability with new companies fits well with

BioRegional's One Planet Communities programme has a tough standard to meet. For a start, the programme requires that no fossil fuel be used to produce energy for buildings. The requirements for sustainable food, water, materials, and employment all require performance at the world's highest standards. The bottom line is that a developer must be able to prove that residents can easily adopt a lifestyle with a one-planet ecological footprint.

After a year and half of discussions and planning for true sustainability, Sonoma Mountain Village became the first official One Planet Community in North America. Today, the project is building the commercial core. Mr Baker expects to start home construction late in 2009 or early 2010, but already the plan is taking shape. 🌍