

## Globalpress: Alta Devices ramping production of 29% efficient GaAs solar cells

David Manners

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Alta Devices has started ramping up its Sunnyvale plant for producing flexible GaAs-based solar cells which have a 29% efficiency ratio.

Alta has raised \$120m of venture money from VCs including Kleiner, Perkins. It expects to ramp its Sunnyvale line to its full 2MW capacity in 2013.

Asked what would be the value of that level of production, Alta's CEO Chris Norris replies: "The military are willing to pay \$20 per Watt and the UAV (Unmanned Aerial Vehicle) people will pay more." That puts a base value of \$40m on the line's annual output.

Even so, Norris will go to the market for more financing when it comes to building his next plant - a 40MW factory - for which he is considering co-investors. Alta want to get the 40MW facility up and running in 2014 and expect it will be the end of 2015 by the time it is running at full capacity.

Alta's aim, says Norris, is to reduce costs to "a few dollars per Watt".

Alta's current cell has 29% conversion efficiency but a 'double junction' cell coming next year will increase that to 33% and a triple junction cell coming in 2014 will have 37% efficiency, says Norris.

The reason for the startlingly high efficiency ratio is the use of gallium arsenide which, says Norris: "Converts more of the Sun's energy into electricity than any other material."

The snag with GaAs is, of course, that it is expensive. Alta have dealt with this by developing a processing technology which allows them to use a layer of GaAs only one micron thick.

The result is a fully flexible cell which can, says Norris, deliver electricity with material a quarter the size of any other solar cell material.