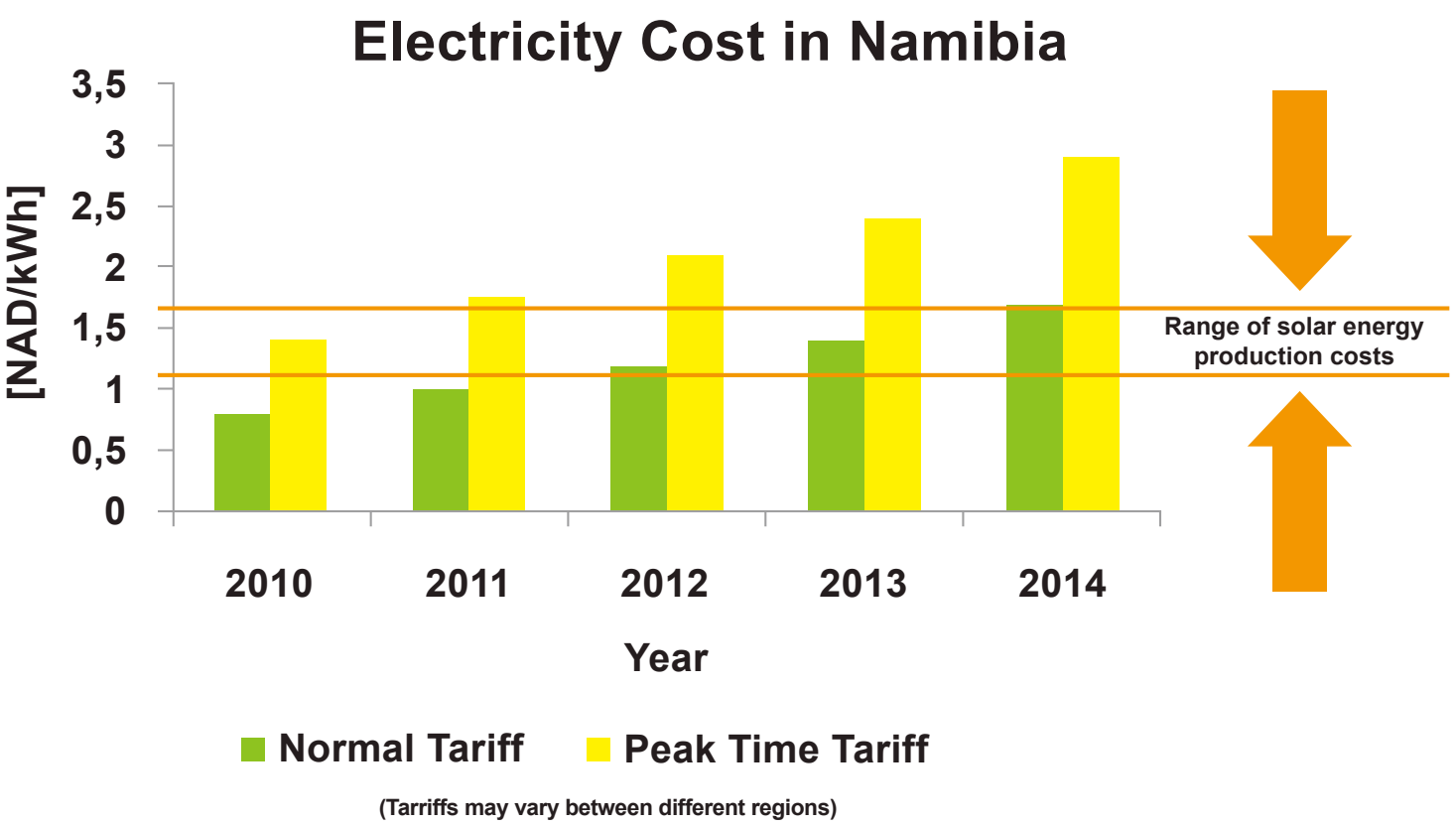
SOLAR POWER: REDUCING YOUR ELECTRICITY COSTS

FRESH ELECTRICITY FOR NAMIBIA



(Tarriffs may vary between different regions)

Recent media reports on electricity issues in Namibia reflect the increasing strain which the production and distribution of power is facing in the future with respect to system maintenance, increasing need and – as a result – increasing cost. This negative tone may be found in all recent reports, so much more a positive counterpoint will be set with this report about a new technology for solar modules available in Namibia for an affordable price.

A survey amongst various providers of electricity in Namibia reveals the following trend on electricity cost up to year 2014: Peak time tariffs will rise up to 3 NAD/kWh, twice as much as today's prices, while normal tariffs will rise to about 1.60 NAD/kWh, an increase of about 60 %. Looking at the same time at today's production costs of solar energy ranging from 1.0 to 1.6 NAD/kWh, depending on the technology installed, it is obvious that peak time tariffs are being matched already this year, while normal tariffs will by matched in 2014. The matching of solar energy cost with conventional energy cost is called „grid parity". Furthermore, solar energy technology is expected to become even cheaper due to technological progress.

A company which will accelerate the implementation of good-priced solar-power plants and hence ease the pressure on electricity cost is HopSol Africa (Pty) Ltd. It was recently founded in Windhoek by HopSol AG in Switzerland, a specialist company for the installation of solar power plants in the sun belt, i.e. countries like Namibia where the sun is shining more intensely than in Europe, for instance, where gird parity is only reached due to governmental subsidies. HopSol Africa(Pty) Ltd started out with the installation of a testfield in the Otjiwarongo area to understand the effects of the Namibian climate (hot-day, but freezing night temperatures, sandstorms with dust deposition, hardly no rain for extended periods) on various manufacturers' solar modules. An outstanding and better performing solar modules, in particular at high temperatures and under low-light conditions is produced by Solar Frontier, a Japanese manufacturer of solar modules, employing a state-of-the art, but different technology.

While over 95 % of solar modules installed today consist of Silicon, a semiconductor well-established in the computer industry, Solar Frontier uses a different semiconductor in their thin-film modules consisting of Copper, Indium and Selenium, short CIS. This new technology not only provides a better performance at high temperature compared to Silicon based-modules, but requires less production steps thereby reducing costs and being environmentally friendly, since it is free of cadmium and lead. The active layer of these modules is only 2-3 millionth of a meter thick, further reducing weight and costs, plus giving it a blackish, noble finish.

HopSol Africa (Pty) Ltd is the sole vendor of Solar Frontier's CIS-based modules in southern Africa. In addition, it acts as a wholesaler for all necessary solar components, like inverters, charge-controllers, batteries, cables, plugs and sensors, provided by renowned companies from all over the world, in particular Germany, Japan and Thailand. First orders for turn-key solar power plants have been placed with HopSol Africa (Pty) Ltd, giving the ordering customer, itself a production company, the chance to reduce day-time electricity costs when peak tariffs apply, and even selling unneeded electricity to third parties when e.g. production is switched off on weekends. Namibian electricity providers must yet implement such schemes, as they are already well established in European countries and the United States.

CIS-based solar modules representing top-notch technology have now arrived in Namibia, spreading a positive signal to electricity consumers and providers with respect to sufficient power supply as well as cost per kWh.

HopSol Africa's testfield with different solar modules in the Otjiwarongo area.