

To Whom It May Concern



Dep. Solar and Systems Engineering

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## Re: BMW Group manufacturing plant, Rosslyn, South Africa: solar-CHP hybrid energy plant

The University of Kassel is coordinating the German-Austrian joint Research and Development project “**SolarAutomotive**”. Within this project, production processes throughout the whole value chain of automotive production is detailed analysed to assess the possibilities for energy efficiency and the utilization of solar heat. Therefore, multitude energy audits have been conducted within global production sites of German and Austrian companies. In the framework of SolarAutomotive, the Department of Solar and Systems Engineering is cooperating with South African energy companies *Blackdot Energy* and *Holms and Friends*. This collaboration specifically focused on the VW plant in Uitenhage and the BMW plant in Rosslyn, South Africa.

Since the inception of the South African projects in January 2018, we can confirm that both *Blackdot Energy* and *Holms and Friends* have demonstrated an in depth understanding of analysing the problem and finding potential solution specifically with reference to the experience in solar-CHP hybrid energy plants in industrial processes. Their work is essential and pioneering in driving a new energy strategy, which demonstrates clear energy-, cost-, and environmental benefits. Both, Wally Weber and Henning Holm are extremely passionate as well as professional, striving for innovation and world class design and their passion and contribution towards renewable energy and perseverance to expand the solar thermal market is to say the least, impressive and inspiring. They therefore are, without hesitation, highly recommended as an energy partner.

With specific reference to the BMW Rosslyn plant, we rate the analysis, argument, and calculations within the final report “**Energy design proposal for solar co-generation hybrid system**” to be sound. The first assessment within SolarAutomotive clearly demonstrated that the BMW manufacturing plant in Rosslyn can hugely benefit from an enhanced energy strategy and a solar-CHP co-/tri-generation project. Indications are that BMW will achieve their target payback period and Internal Rate of Return (IRR) by implementing the project.

To validate these pre-findings, it is highly recommended to perform a case study with a higher degree of detail. Within this case study, the project team will be able to develop a detailed technical concept based on onsite boundary conditions and include a resilient economic evaluation, which is the basis for a profound decision for or against such an investment. Therefore, we recommend that BMW acknowledges the report and its findings, enables and financially supports the execution of a detailed feasibility study, which is necessary to identify the specific project and their parameters under which a viable project can be implemented.

Given this commitment, the Department of Solar and Systems Engineering of University of Kassel and its South African partners will search for a co-financing source for the feasibility study and commit to support this analysis with in depth technical expertise and experience to ensure an optimum solution.

We see forward to your positive response and future cooperation.

Yours faithfully,

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