



Square Kilometre Array (SKA) SA

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Jade Feinberg
AMDA Developments
25 Adderley Street
Cape Town
8000

Date: 23rd May 2017

Dear Jade,

RE: DEVELOPMENT OF AMDA CHARLIE PV ENERGY FACILITY NEAR STRAUSSHEIM, NORTHERN CAPE PROVINCE

This letter is in response to the provision, by yourself, of an Emission Test Report on the potential impact of the proposed AMDA CHARLIE photovoltaic energy facility in the Northern Cape Province, near Strausheim. This report was conducted in response to a request by SKA South Africa, which had previously conducted a high level impact assessment report, in which the proposed facility was identified as being a medium to high risk on the SKA.

SKA South Africa can provide the following response:

- i. We have considered the report as provided, and can conclude the following:
 - a. The report considers an already built PV facility, located near Kathu in the Northern Cape Province, to be representative of the proposed facility. Radio frequency measurements were undertaken at this facility to obtain representative measurement information;
 - b. The report identifies a number of measured radio signals, and identifies these as being consistent with radio signals transmitted by existing telecommunication services in the vicinity, and not originating from the facility itself;
 - c. Remaining radio signals are identified as being consistent with radio interference generated by the facility;
 - d. The report assesses the measurements, and proposes that, assuming the proposed facility adopts the exact same design as that measured, between 3dB and 17dB of additional mitigation will be required. This additional mitigation is technical achievable through the implementation of off the shelf technical measures;

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📍 3rd Floor, The Park, Park Road,
Pinelands 7405, South Africa
☎ +27 (0)21 506 7300
📠 +27 (0)21 506 7375

📍 17 Baker Street, Rosebank
Johannesburg, South Africa
☎ +27 (0)11 442 2434
📠 +27 (0)11 442 2454

📍 Karoo Support Base
📠 P.O. Box 69
Carnarvon, 8925
☎ +27 (0) 21 506 7300



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- ii. SKA South Africa supports the conclusions of the report, and believes that the required additional mitigation should be easily achievable following the implementation of specific technical mitigation measures. However, the requirement and specification of these technical measures must be identified in the design process of the facility, and must not be delayed for implementation post-construction. It must also be noted that the required mitigation as identified in the report is relevant for a single facility. Should multiple facilities be considered, or a larger single facility, then additional attenuation will be required;
- iii. SKA South Africa requires that an appropriate EMC Control Plan is developed and approved by SKA South Africa, prior to construction of the proposed facility, which will identify prior and during the design process specific technology risks and mitigation measures to be implemented, as well as acceptance and verification processes consistent with good engineering practice. All EMC Control Plans must consider any cumulative impact result from more than one facility being constructed;
- iv. We are confident that an EMC Control Plan will reduce the risk sufficiently such that the proposed facility poses a low risk of impact to the SKA. However, should multiple facilities be built at the same location, the facility would pose a medium risk of impact to the SKA and the relevant EMC Control Plan must take this into account;

This technical advice is provided by the South African SKA Project Office on the basis of the protection requirements of the SKA in South Africa, and does not constitute legal approval of the renewable energy projects in terms of the Astronomy Geographic Advantage Act, the Management Authority, and its regulations or declarations.

Regards,

Dr. Adrian Tiplady
General Manager: Strategy and Business Systems
SKA South Africa
Tel: 011 442 2434

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atiplady@ska.ac.za

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