

Environmental Impact Assessment

Schedule III

(Screening according to S.L. 549.46)

ERA Reference no.: EA/00018/18
PA Reference no.: PA/03090/17
Project Title: To erect solar greenhouses, underground reservoir and substation
Location: Ta' Lelluxa, Triq Mġarr, Għajnsielem, Gozo
Screening date: April 2018

1 Description of Proposal

1.1 Outline of project/development

PA/03090/17 is a development permit application to assemble three solar greenhouses as well as the construction of a reservoir and an electricity substation at Ta' Lelluxa, Triq l-Imġarr in the limits of Għajnsielem, Gozo (Figure 1, 2 and 3). The existing site is currently being used as agricultural land to grow animal fodder. The proposed site covers a total area of 32,077m², but only circa 30% of it (i.e.: 9,860 m²) will be used for development, the remaining land will retain its open space (Figure 4). The proposed project will involve:

- the construction of three solar greenhouses that will be used both for agricultural purposes and to generate renewable energy through the installation of photovoltaic panels;
- the construction of a reservoir with a volume of circa 420m³ which will be used to collect runoff water and then used onsite for irrigation and cleaning of the facilities;
- the construction of a substation in order to connect the photovoltaic plant with the electricity distribution network;
- the planting of around 125 trees and shrubs consisting of *Olea europea* (Olive), *Prunus dulcis* (Almond) and *Ceratonia siliqua* (Carob); and
- the restoration of rubble wall, which encircles the site.



Figure 1: Aerial photo of site, 2016 (Source: PA Geoserver).



Figure 2: Aerial photo of site (zoomed), 2016 (Source: PA Geoserver).



Figure 3: Street view of the site (Source: Google maps, October 2016).

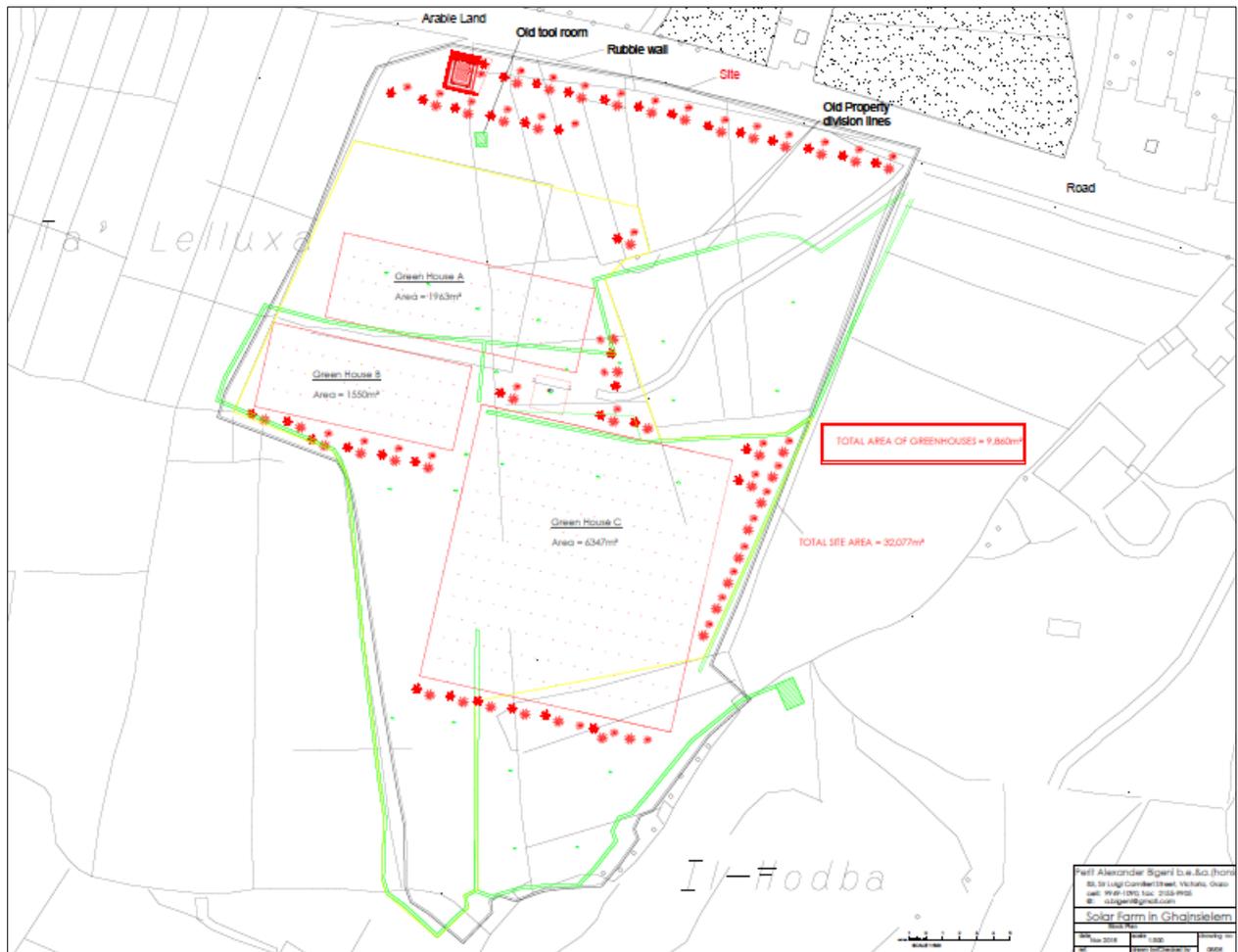


Figure 4: Block plan (Source: PDS pg 27)

1.2 Site description and related considerations

The proposed site is located at Ta' Lelluxa, Triq l-Imġarr in the limits of Ghajnsielem, Gozo. The site is divided into five (5) different fields by low-lying rubble walls most of which are in poor conditions and is currently being used as agricultural area to grow animal fodder. The site is situated in an Outside Development Zone (ODZ) and lies within the 'Land of Agricultural Value (GZ-AGRI-1) as per Map 11.2 in the Gozo and Comino Local Plan (GCLP), 2006. In addition, part of the site falls within the boundary area for Archaeology (GZ-ARCO-1 & 2) and the Aquifer Protection Zone (GZ-UTIL-7) as per Map 14.2E of the GCLP, 2006).

In addition, the site is located:

- Adjacent to the Triq l-Imġarr, which is one of Gozo's busiest roads located north of the site;
- Circa 400m west from the nearest Urban Conservation Area (UCA);
- 250m east of Category 1 Outside Development Zone Settlement (GZ-RLST-1) (Map 4.2.10, GCLP, 2006);
- Circa 425m east of the heliport Bird Sanctuary (Ta' Lambert (Heliport) – MALT_067) (Protection of Birds and Wild Rabbit Regulations – S.L.435.04);
- Just outside the 300m buffer line of the Groundwater Safeguard Zone as identified by MRA under the Water Policy Framework Regulations (S.L. 549.100);
- Circa 486m east of the Gozo Heliport Pad; and
- Circa 150m north of the 'Intensive Agriculture Zone' (GZ-AGRI-2) (Map14.2A, GCLP, 2006).

1.3 Site history

The site has no previous planning applications.

2 EIA-relevant history

2.1 Relevant EIA/screening criteria (citations refer to EIA Regulations, 2017 (S.L. 549.46), except where otherwise specified)

Originally, ERA informed the developer that the proposal fell under Schedule IA, Category I, Section 1.1.1(ii): *The construction of a building or installation with ground cover of more than 10,000m²* of the then Environmental Impact Assessment Regulations, 2007 (S.L. 549.46). In this regard, a Project Description Statement (PDS) was requested.

The PDS was submitted on the 21st March 2018, thus the proposal was re-screened in line with the revised EIA Regulations, 2017 (S.L. 549.46). It was determined that the proposal falls under Schedule I, Category II, Section 1.0.2.1: *Development with a site area of 2ha or more.*

2.2 Documents used for screening:

1. ERA Screening reply, dated on 23rd May 2017 and,
2. PDS, received on the 21st March 2018 via email.

3 Screening Matrix Checklist

The following screening checklist is based on information in the Project Description Statement provided by the developer in accordance with Schedule II of the EIA Regulations (S.L. 549.46) and the European Commission Guidance on Screening (2017).

Question Number:	Questions to be Considered	Types and characteristics of identified potential impacts Briefly describe	Is this likely to result in a significant effect? Briefly justify	Document Reference
1	Will construction, operation, decommissioning or demolition works of the Project involve actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc)?	Yes. The proposed site is currently an open field, which is used for the cultivation of animal fodder. Circa 30% of this land (9, 850m ²) will be used for the erection of three solar greenhouses, the construction of substation and underground water reservoir. In this respect, there will be a partial change in land use from an existing agriculture land to a solar greenhouses farm.	Yes <input type="checkbox"/> No x Unclear <input type="checkbox"/> Although The proposed site is relatively flat agricultural land and circa 30% will be used for the proposed solar greenhouses. In addition, the solar greenhouses will still be used for both agricultural production and the generation of renewable energy, and the flat topography is amenable to such use without the requirement for high-impact site-engineering works. In this instance, the proposal is not expected to have any significant impacts on the environment in relation to topography, land use and water bodies.	PDS pg 9, 23
2	Will construction or operation of the Project use natural resources such as land, water, materials or energy, especially any resources which are non-renewable or in short supply?	Yes. At construction phase, the proposal will make use of materials such as concrete for anchorage points, steel, aluminium and glass for the greenhouse structural features and fuel for the machinery. At operational phase, the project will require water for irrigation, cleaning and energy. The proposed project is expected to use a total maximum consumption of around 109,000 KWh per annum.	Yes <input type="checkbox"/> No x Unclear <input type="checkbox"/> Given the nature of the project, no significant impacts are being envisaged. In addition, the proposal will contribute towards Malta's commitments to increase its renewable energy capacity.	PDS, pg 21, 41, 59

Question Number:	Questions to be Considered	Types and characteristics of identified potential impacts Briefly describe	Is this likely to result in a significant effect? Briefly justify	Document Reference
3	Will the Project involve the use, storage, transport, handling or production of substances or materials, which could be harmful to human health to the environment or raise concerns about actual or perceived risks to human health?	<p>Yes.</p> <p>During construction phase, dust will be generated from the construction and movement of vehicles on soil surface.</p> <p>During operational phase, dust can be generated from agricultural activity mainly during soil management operations.</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/></p> <hr/> <p>Given that, the proposed site is already agricultural land; no significant impacts are being foreseen. In addition, the PDS proposes two mitigation measures such as spraying the internal road with water to reduce dust during construction phase and rotovate the soil on windless days.</p>	PDS pg 58, 61
4	Will the Project produce solid wastes during construction, operation or decommissioning?	<p>Yes.</p> <p>During construction phase, waste is expected to be generated from the packaging of pv panels. Whereas during the operational phase waste is expected to be generated mainly from agricultural waste.</p> <p>The proposal will generate Waste of Electric and Electronic Equipment (WEEE) when the project infrastructure is decommissioned within 35 years.</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/></p> <hr/> <p>The amount of waste likely to be generated during construction phase and operational phase are not considered to be significant as long as waste is managed in accordance with the Waste Management Regulations (S.L. 549.63).</p>	PDS pg 39, 40, 42
5	Will the project release pollutants or any hazardous, toxic or noxious substances to air or lead to exceeding Ambient Air Quality standards in Directives 2008/50/EC and 2004/107/EC?	<p>Yes.</p> <p>Both during construction phase and operational phase, dust and fuel emissions are expected to be generated. Operational traffic is expected to be low.</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/></p> <hr/> <p>Given the nature of the project, no significant impacts are being foreseen and any potential impact can be mitigated through the proper implementation of the Environmental Management Construction Site Regulations (S.L. 552.09).</p>	PDS pg 35, 59, 62

Question Number:	Questions to be Considered	Types and characteristics of identified potential impacts Briefly describe	Is this likely to result in a significant effect? Briefly justify	Document Reference
			The proposal is not expected to generate a substantial amount of additional traffic during operation and thus it will not exceed the Ambient Air Quality standards. In addition, the project will be contributing towards the improvement of atmospheric quality by generating green energy.	
6	Will the Project cause noise and vibration or the releasing of light, heat, energy or electromagnetic radiation?	<p>Yes.</p> <p>During construction phase, vehicles and construction machinery will generate noise. Whereas vibrations can be generated from the excavations works.</p> <p>During operational phase, noise will be generated from agricultural activities.</p>	<p>Yes <input type="checkbox"/> No x Unclear <input type="checkbox"/></p> <hr/> <p>Given the nature of both the project and the site, no significant impact is being foreseen as in terms of noise and vibrations.</p>	PDS pg 57, 59, 60
7	Will the Project lead to risks of contamination of land or water from releases of pollutants onto the ground or into surface waters, groundwater, coastal waters or the sea?	<p>The site lies immediately outside the 300m buffer line of the Groundwater Safeguard Zone as identified by MRA under the Water Policy Framework Regulations (S.L. 549.100).</p> <p>No pollutants are envisaged to be used or stored on site. During the site clearance and construction phase, accidental spillages from construction vehicles and other machinery may occur.</p>	<p>Yes <input type="checkbox"/> No x Unclear <input type="checkbox"/></p> <hr/> <p>No significant impacts are being envisaged.</p>	/
8	Will there be any risk of accidents during construction or operation of the Project, which could affect human health or the environment?	No increase in the risk of accidents is envisaged, other than occupational risks typically associated with construction activities and day-to-day operations.	<p>Yes <input type="checkbox"/> No x Unclear <input type="checkbox"/></p> <hr/> <p>No significant impacts are being envisaged.</p>	/

Question Number:	Questions to be Considered	Types and characteristics of identified potential impacts Briefly describe	Is this likely to result in a significant effect? Briefly justify	Document Reference
9	Will the Project result in environmentally related social changes for example, in demography, traditional lifestyles, employment?	No. The proposed development is not expected to lead to demographic or social changes.	Yes <input type="checkbox"/> No x Unclear <input type="checkbox"/> No significant impacts are envisaged.	/
10	Are there any such factors, which should be considered such as the consequential development, which could lead to environmental impacts or the potential for cumulative impacts with other existing or planned activities in the locality?	No other consequential developments are being envisaged, as long as there are sufficiently robust safeguards in the permit to preclude the proposed development from being considered as an in-principle commitment for conversion to a different use or for the introduction of other structures that are less reversible in practice (e.g. permanent foundations or flooring).	Yes <input type="checkbox"/> No x Unclear <input type="checkbox"/> No significant impacts are envisaged, subject to the concern mentioned in the previous column.	/
11	Is the project located within or close to any areas, which are protected under international, EU or national or local legislation for their ecological, landscape, cultural or other value, which could be affected by the Project?	Yes. The site is Outside Development Zone (ODZ) and is located circa 425m east of the heliport "Bird Sanctuary" (Ta' Lambert (Heliport) – MALT_067) (Protection of Birds and Wild Rabbit Regulations – S.L.435.04). The site also lies immediately outside the 300m buffer line of the Groundwater Safeguard Zone as identified by MRA under the Water Policy Framework Regulations (S.L. 549.100).	Yes <input type="checkbox"/> No x Unclear <input type="checkbox"/> The proposal is not expected to have a significant environmental impact, noting that the "Bird Sanctuary" in question is only nominally an environmental constraint and its purpose is related to heliport safety rather than actual environmental protection. Also, no significant environmental impacts are envisaged on the Groundwater Safeguard Zone.	PA's Geoportal
12	Are there any areas on or around the location, which are important or sensitive for reasons of their ecology, e.g. marshlands, wetlands, watercourses or other	No such areas are present.	Yes <input type="checkbox"/> No x Unclear <input type="checkbox"/> No significant impacts are being envisaged.	/

Question Number:	Questions to be Considered	Types and characteristics of identified potential impacts Briefly describe	Is this likely to result in a significant effect? Briefly justify	Document Reference
	water bodies, the coastal zone, mountains, forests or woodlands, which could be affected by the Project?			
13	Are there any areas on or around the location which are used by protected, important or sensitive species of fauna or flora e.g. for breeding, nesting, foraging, resting, overwintering, migration, which could be affected by the Project?	Reply to Question 11 refers.	Yes <input type="checkbox"/> No x Unclear <input type="checkbox"/> Reply to Question 11 refers.	PA's Geoportal
14	Are there any inland, coastal, marine or underground waters (or features of the marine environment on or around the location, which could be affected by the Project?	The site lies immediately outside the 300m buffer line of the Groundwater Safeguard Zone as identified by MRA under the Water Policy Framework Regulations (S.L. 549.100).	Yes <input type="checkbox"/> No x Unclear <input type="checkbox"/> No significant impacts are being envisaged	PA's Geoportal
15	Are there any areas or features of high landscape or scenic value on or around the location, which could be effected by the Project?	Yes. The site is adjacent to the Mġarr road, which is one of Gozo's busiest roads connecting the harbour to the town of Victoria. In addition, there are open views towards the South.	Yes <input type="checkbox"/> No x Unclear <input type="checkbox"/> The proposed solar greenhouses will be erected circa 55m away from the road and the project proposes the plantation of around 125 trees in order to minimise the visual impact. Hence, no significant impacts are being envisaged.	/
16	Are there any routes or facilities on or around the location, which are used by the public for access to recreation, or other	Yes. The site is adjacent to the Mġarr road, which is one of Gozo's busiest roads connecting the harbour to the town of Victoria.	Yes <input type="checkbox"/> No x Unclear <input type="checkbox"/> No significant impacts are being foreseen given the nature of the project.	PDS pg 12

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	facilities, which could be affected by the Project?			
17	Are there any transport routes on or around the location which are susceptible to congestion or which cause environmental problems, which could be affected by the Project?	Reply to question 16 refers	Yes <input type="checkbox"/> No x Unclear <input type="checkbox"/> Reply to question 16 refers	PDS pg 12
18	Is the Project in a location where it is likely to be highly visible to many people?	Yes. The site is adjacent to the Mġarr road, which is one of Gozo's busiest roads connecting the harbour to the town of Victoria.	Yes <input type="checkbox"/> No x Unclear <input type="checkbox"/> The proposed solar greenhouses will be erected circa 55m away from the road and the project proposes the plantation of around 125 trees in order to minimise the visual impact. Hence, no significant impacts are being envisaged.	PDS pg 23. PA's Geoportal, Block Plan
19	Are there any areas or features of historic or cultural importance on or around the location that could be affected by the Project?	Yes. The site is located around 425m east from the Grade 1, Torri ta' Santa Cilja and circa 430m east from the Grade 1, Kappella ta' Santa Cilja both scheduled under the G.N. 360 of 1996.	Yes <input type="checkbox"/> No x Unclear <input type="checkbox"/> No significant impacts are envisaged.	PDS pg 16
20	Is the Project located in a previously undeveloped area where there will be loss of greenfield/ODZ land?	Yes. The site is situated in an Outside Development Zone (ODZ) and is within the 'Land of Agricultural Value (GZ-AGRI-1) as per Map	Yes <input type="checkbox"/> No x Unclear <input type="checkbox"/> No significant impacts are envisaged given the nature and scale of the project.	GCLP, PDS pg 17

Question Number:	Questions to be Considered	Types and characteristics of identified potential impacts Briefly describe	Is this likely to result in a significant effect? Briefly justify	Document Reference
		11.2 in the Gozo and Comino Local Plan (GCLP), 2006. It is currently used as agricultural land to grow animal fodder.		
21	Are there existing land uses on or around the location e.g. homes, gardens, other private property, industry, commerce, recreation, public open space, community facilities, agriculture, forestry, tourism, mining or quarrying which could be affected by the project?	Yes. The site is located circa 57m from the building scheme and 93m away from Għajnsielem village. Other agricultural fields are located to the west of the site.	Yes <input type="checkbox"/> No x Unclear <input type="checkbox"/> No significant impacts are envisaged given the nature and scale of the project.	PDS pg 13
22	Are there any plans for future land uses within or around the location, which could be affected by the Project?	No such plans for future land uses are known of in the surrounding of the site of the proposal.	Yes <input type="checkbox"/> No x Unclear <input type="checkbox"/> No significant impacts are envisaged.	/
23	Are there any areas on or around the location which are densely populated or built-up, that could be affected by the project?	Yes. The site is located circa 57m from the building scheme and 93m away from Għajnsielem village.	Yes <input type="checkbox"/> No x Unclear <input type="checkbox"/> No significant impacts are envisaged given the nature and scale of the project.	PDS pg 13
24	Are there any areas on or around the location, which are occupied by sensitive land, uses e.g. hospitals, schools, places of worship, community facilities which could be affected by the project?	No such sensitive land uses are known of on or around the site of proposal.	Yes <input type="checkbox"/> No x Unclear <input type="checkbox"/> No significant impacts are envisaged given the nature and scale of the project.	/

Question Number:	Questions to be Considered	Types and characteristics of identified potential impacts Briefly describe	Is this likely to result in a significant effect? Briefly justify	Document Reference
25	Are there any areas within or around the location which contain important, high quality or scarce resources e.g. groundwater, surface waters, forestry, agriculture, fisheries, tourism, minerals, which could be affected by the project?	Yes. The surrounding area is occupied by agricultural land.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No significant impacts are envisaged given the nature of the project.	PDS pg 17
26	Are there any areas within or around the location, which are already subject to pollution, or environmental damage e.g. where existing legal environmental standards are exceeded that could be affected by the project?	No such areas are known within or around the site.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No significant impacts are envisaged.	/
27	Is the project location susceptible to earthquakes, or subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions e.g. temperature inversions, fogs, severe winds, which could cause the project to present environmental problems?	No. The likelihood of such extreme events in the area can be considered to be minimal.	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Unclear <input type="checkbox"/> No significant impacts are envisaged given the nature and scale of the project.	/

4 Screening Conclusion and recommended way forward

4.1 EIA screening conclusion

The above detailed EIA screening concludes that impacts of the development are unlikely to be significant to the point of warranting an EIA report, as long as various mitigation measures are duly incorporated into the mainstream development consent mechanism and mitigated by means of conditions and specifications (e.g. approved documents) in the development permit.

In this regard, the proposal does not require the submission of an EIA Report in accordance with Regulation 15(3b) of the EIA Regulations 2017 (S.L.549.46).

4.2 Submission of further information

From the block plan submitted on E-Apps doc PA 003090/17/40g and the description of site (PDS p 13), it shows that the site has several low-lying rubble walls most of which are in a bad state. The project is proposing to erect three solar greenhouses, parts of which will overlay some of the rubble walls. The PDS (p 23) only mentions the restoration of the rubble wall that is encircling the site. In this regard, ERA is recommending the resubmission of plans, which includes the repositioning of the three solar greenhouses so as to minimise the impact on rubble walls.

4.3 Conditions

4.3.1 Undeveloped land

Any undeveloped [or un-built] land on site shall be retained as such in perpetuity. Neither this development permit nor any details that are shown, omitted or unclearly indicated in the approved plans/documents shall be construed as in any way implying any entitlement or in-principle commitment for additional future development, even if ancillary to the approved development or required in connection with its operation. No future extensions or development or required commitments will be permitted to the land covered by this development permit.

4.3.2 Removal after cessation of use

If at any point the development hereby permitted ceases to operate or is no longer being used for the approved use, it shall be demolished/dismantled and removed from the site, at the expense of the applicant. The site shall be completely restored to its pristine state to the satisfaction of the Environment and Resources Authority.

4.3.3 Use

The development hereby approved shall be used exclusively to assemble three solar greenhouses as well as the construction of a reservoir and an electricity substation purposes and for agricultural purposes only. No form of other uses such as habitation, retail, commercial and industrial are permitted on site.

4.3.4 No hardstanding/foundation

There shall be no concrete platforms or any other permanent foundations or hardstandings.

4.3.5 Reservoir

The reservoir shall be constructed completely underground and it shall be covered by a layer of soil of thickness 0.5m and thereafter retained as such in perpetuity.

4.3.6 Reservoir use

The reservoir hereby approved shall solely be used for the storage of water for the purposes of irrigation of agricultural land and the washing and cleaning of both photovoltaic panels and other areas of the facility and its use shall be retained as such in perpetuity. No other use is permitted.

4.4 Screening Disclaimer

The above screening results, the ensuing conclusions and recommendations are without prejudice to any required changes or updates should the development proposal be eventually modified or should the information/assumptions provided turn out to be incorrect. Any deviations of the proposal from this submission would need to be re-assessed and the merits of this screening would need to be re-opened.