

Scheme for the lighting of external facades, cupolas and bell towers of churches in Gozo

Guidelines For Applicants

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PART 1 – GENERAL INFORMATION ABOUT THE SCHEME

1.1 Scope and Parameters

The Ministry for Gozo is launching a scheme to assist Local Parish Churches in Gozo in installing new lighting or upgrading existing lighting on external facades, cupolas and/or bell towers of the parish church.

While EcoGozo recognizes the need to illuminate facades, cupolas and/or bell towers of parish churches, it advocates that any required lighting be used wisely. To minimize the harmful effects of light pollution, this scheme will ensure and enforce that lighting is:

- only on when needed;
- where it is reasonably possible, lighting is to be fully shielded (pointing downward).
- the colour temperatures shall not exceed 3000K to reduce the amount of scatter by aerosols in the atmosphere;
- the lighting proposal shall be designed to highlight specific features of the building rather than flooding the entire building;
- the lighting used shall be very subtle and sensitive to the surroundings;
- the lighting proposal shall preferably consist of a larger number of strategically located, low power luminaires, rather than a few high-power ones. In this manner, the luminaires can be directed towards particular features of the building, rather than floodlighting, thereby minimising light spillage, light trespass, and light pollution;
- the façade should preferably be illuminated from nearby buildings or lighting columns using narrow beam luminaires fitted with anti- glare shields or baffles;
- the lighting proposal should include a control system to allow manual and automatic switching and dimming of each individual luminaire separately. This will allow for control of various pre-programmed lighting scenes in order to minimize energy consumption and light pollution;
- the lighting proposal shall generally conform to the requirements of the ERA Guidelines for the Reduction of Light Pollution in the Maltese Islands.

These will be the guiding principles behind this scheme. The Scheme shall be administered by the EcoGozo Directorate, which office shall be solely responsible for administering the scheme. Project proposals, to be presented by Parish Churches, shall be evaluated by a Selection Committee set up by the Ministry for Gozo. The Parish Church (management) will assume the sole responsibility for the

installation of the new lighting or the upgrading of existing lighting on external facades from inception till project completion.

1.2 Applications

This scheme is intended to finance projects which shall be implemented during late of year 2021 and 2022.

Applications must be submitted online via <https://mgozcms.gov.mt/en/Pages/eForms/Scheme-for-the-lighting-of-external-facades-of-churches-in-Gozo.aspx> by **noon of Friday, 1st October 2021**. Late submissions shall not be considered.

Applicants shall ensure that they provide all necessary information by filling in ALL sections of the application form and submitting all the related supporting documentation as identified in the same application form.

PART 2 – ELIGIBILITY AND ASSESSMENT CRITERIA

2.1 Eligibility Criteria

The Scheme is open to all Parish Churches in Gozo.

The Ministry for Gozo reserves the right to refuse any application and to take legal action to recover any amount granted with interest and other costs incurred, in case of:

- incorrect information being stated by the applicant in the project proposal or any reporting;
- any conditions of the scheme not being met;
- issues related to double funding or overfunding of the project; or
- other reasons where the 'bona fide' intention of the applicant is manifestly missing.

To ensure a meaningful assistance to as many different local parishes in Gozo as possible and to help facilitate the successful implementation of the Scheme, the following eligibility criteria shall apply:

- Parish Churches can submit **one** application/project proposal;

- A complete application form is submitted with all the required documentation within the deadlines for submitting applications;
- Only external lighting proposals will be accepted;
- Only lighting proposals that respect the local plan for the dark sky will be eligible – refer to Annex 1;
- Only proposals with 30% of light fixtures that are deemed as acceptable as per illustration in Annex 2 will be accepted;
- Parish churches that have a pending Planning Authority enforcement case cannot be considered for eligibility under this scheme;
- Proposal submitted must be through a reputable engineering firm;
- Proposals that are related to single or multiple phases of a project will also be considered;
- Applications shall relate to project proposals that are still at inception phase. *(NB: This criterion excludes from participation in the Scheme all those lighting projects which are already underway, that is, where implementation has already started).*

2.2 Assessment Criteria

Applications received will be assessed by a Selection committee appointed by the Ministry for Gozo. The Selection committee reserves the right to seek further clarifications when not completely satisfied with the information being submitted. The Selection Committee retains the right to accept or reject any or all applications. The number of projects accepted for funding will be determined according to funds available and strictly according to the ranking order. The decision taken by the Ministry for Gozo in this process shall be final.

Further to the project eligibility parameters already identified in Section 2.1 above, the Selection Committee shall use the following criteria as a basis for the selection of the projects to be implemented during a particular year:

- Quality of proposal;
- Energy efficiency considerations in the proposal;

- Site/project visibility and location (the closer it is to the dark sky delineations the less marks the proposal will gather);
- LED Lighting considerations in the proposal as per Annex 3.

Each of the four (4) general assessment criteria above carry 25% weighting and a project shall be funded through this scheme if it is eligible and obtains 50% or more when assessed according to the assessment criteria.

2.3 Eligible Items for funding

Items included in the bill of quantities that will be submitted with the application will be considered for funding if the items are directly related to the new lighting system or the upgrading of the lighting system.

Project Management fees and any other professional fees incurred in the design and implementation of proposals submitted are not eligible items for funding under the scheme.

PART 3 – CONDITIONS

In submitting an application, the management of the Parish Church shall be committing itself to:

- obtaining all relevant necessary permits;
- maintaining the proposed lighting in a fully functional state for a period of five years following project completion.

PART 4 – PAYMENT OF GRANT

The co-financing rate is as follows: 95% Ministry for Gozo; 5% Parish Church. The maximum grant that a Parish Church can benefit from is set at € 250,000.00 excluding VAT. The number of beneficiaries that can benefit from this scheme depends on the number of successful applicants that obtained 50% or more in the assessment exercise and on the absorption of the allocated funds.

The project shall be implemented by the Parish according to the method statements and bill of quantities of the awarded contractor following a call for

tenders. The contract implementation in its entirety will be the sole responsibility of the Parish. The Beneficiary will be receiving the financial amount equivalent to the certified invoices, corresponding interim certificates, corresponding bill of quantities with take-offs together with any photographic evidence when these are presented to the Ministry. Any other relevant documentation may be requested from time to time.

PART 5 – AUDIT AND CONTROL

Beneficiaries should note that public funded projects are subject to audits by various national bodies. Funds must be contracted in a transparent and competitive manner. In this regard Beneficiaries must be guided by the principles of non-discrimination, equality of treatment, transparency, mutual recognition, proportionality, open competition, sound financial management and good governance. The main responsibility for ensuring proper and sound financial management lies with the Parish Church. Beneficiaries should note that their projects will be subject to documentary and on site checks. These checks will be undertaken by the relevant authorities. For this reason beneficiaries must ensure that they comply with the record keeping and inspection requirements set out in the following paragraphs and in all relative legislation:

- Beneficiaries must ensure that sound financial management and the Public Procurement Regulations of the Government of Malta are followed throughout the execution of the project.
- Beneficiaries must keep documents relating to specific expenditure incurred, declared and payments made under the assistance and required for a sufficient audit trail including documents constituting proof of actual delivery of works/goods/services co-financed through the scheme. In particular, record should be kept of the original of any quotations, invoices and fiscal receipts. Records must be kept for at least 5 years following payment of the grant. These records must be made available to the Ministry for Gozo if requested at any time during this 5-year period.

- The Ministry for Gozo may perform on-site inspections for a period of 5 years following project completion to ensure that the lighting system is being maintained in a fully functional state.
- If requested, beneficiaries shall at all times provide such additional information and co-operation as the Ministry may request for the purposes of monitoring the effectiveness of the grant scheme. The Ministry will be entitled to use any information forming part of this scheme, amongst other things, for the purposes of publishing and reporting.

PART 6 – PUBLICITY

The Ministry for Gozo retains the right to use any material and organise events connected with the projects benefiting from this scheme, and to publish information it may deem necessary. It shall also be the responsibility of the Parish Church to acknowledge the Ministry for Gozo as the funding source of the project.

ANNEX 1: GCLP_POLICY MAP 13_8


GOZO & COMINO LOCAL PLAN



L-AWTORITA' TA' MALTA DWAR L-AMBJENT U L-IPPJANAR
MALTA ENVIRONMENT & PLANNING AUTHORITY

Map 13.8 DARK SKY HERITAGE

Key

-  Roads
-  Coast
-  Built-up Areas
-  Contours
-  Dark Sky Heritage Areas GZ-DARK-1

Remarks :

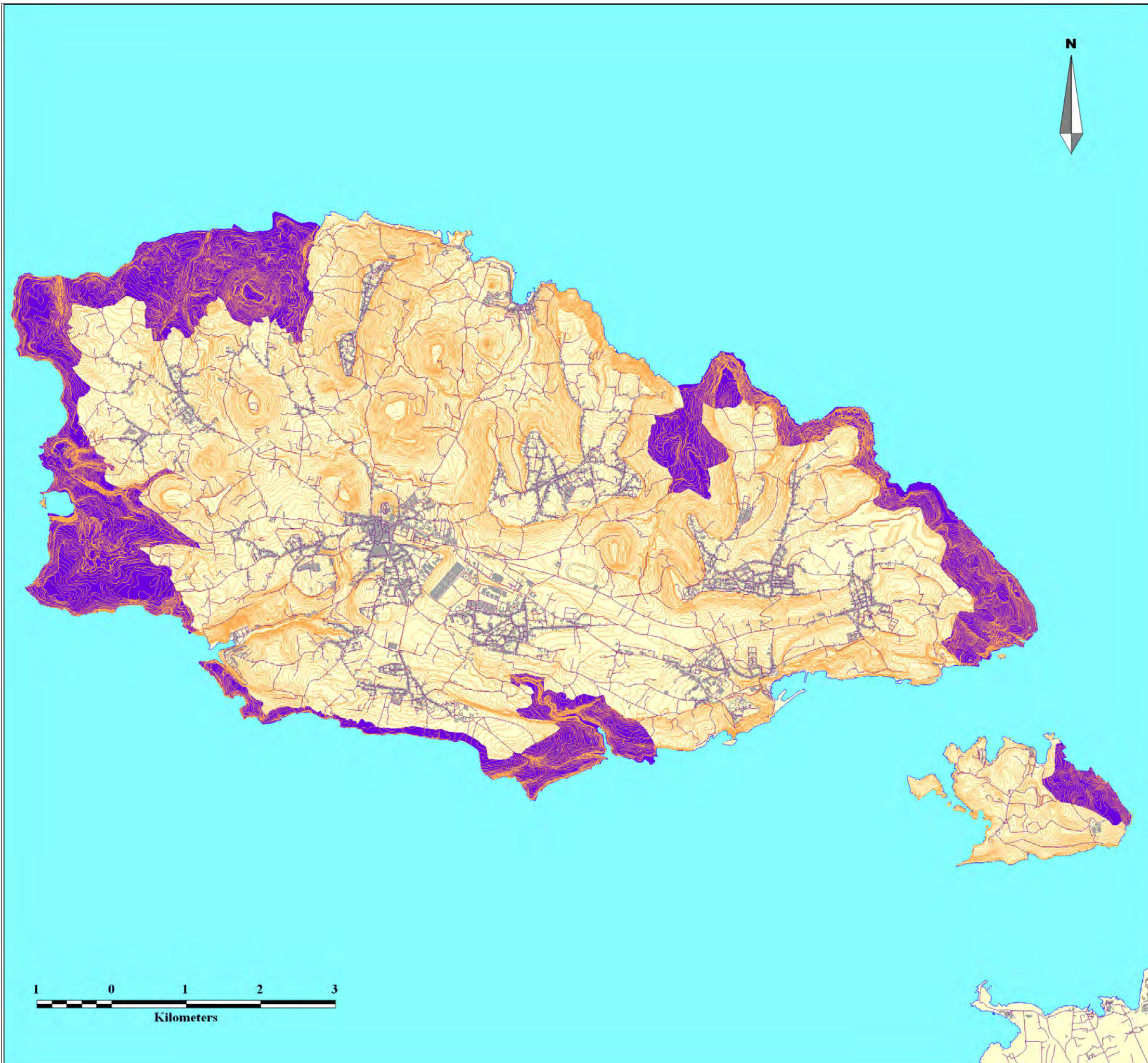
Important :

1. Indicative only. Not to be used for measurement or direct interpretation.
2. Maps to be used in conjunction with Policy Document
3. Built-up Areas based on 1988 Maps

Base Maps - 1988 Survey Sheets Copyright MEPA

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Policy Maps\July 2006\13_8-1.wor

JULY 2006



ANNEX 2: EXAMPLES OF ACCEPTABLE/UNACCEPTABLE LIGHTING FIXTURES

The below provides an easy visual guide to understand the differences between unacceptable, unshielded light fixtures and those fully shielded fixtures that minimize skyglow, glare and light trespass.



Figure 1 – Picture reproduced from <https://www.darksky.org/our-work/lighting/lighting-for-citizens/lighting-basics/>

ANNEX 3: LED LIGHTING CONSIDERATIONS

New technical capabilities often come with unanticipated challenges. Most white LED lighting has significant levels of potentially harmful blue light. The International Dark-Sky Association published a report in 2010 detailing the known and suspected hazards of blue-rich white light sources. In the years since, scientific evidence has coalesced around its conclusions. Blue-rich white light sources are known to increase glare and compromise human vision, especially in the aging eye. These lights create potential road safety problems for motorists and pedestrians alike. In natural settings, blue light at night has been shown to adversely affect wildlife behavior and reproduction. This particularly true in cities, which are often stopover points for migratory species such as birds.

Concerns about blue light reach far beyond biology. Outdoor lighting with strong blue content is likely to worsen skyglow because it has a significantly larger geographic reach than lighting consisting of less blue. According to the 2016 "[New World Atlas of Artificial Night Sky Brightness](#)" street lighting and outdoor lighting retrofits using 4000-kelvin white LED lamps could result in a factor of 2.5 increase in light pollution. Given that the rate of increase of lighting as seen from Earth orbit is about 2 percent per year, it is all the more important to address this problem.

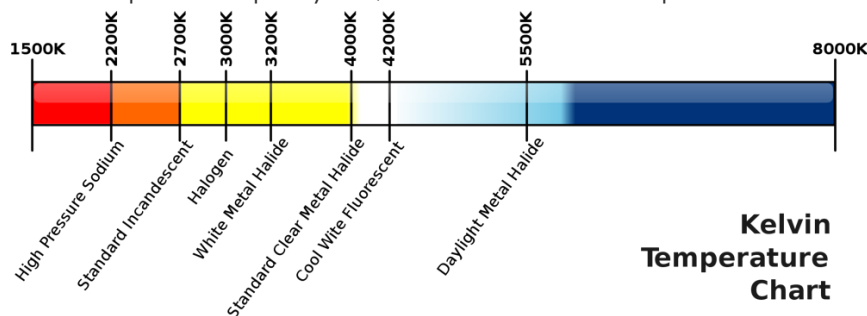


Figure 1

The promise of cheaper outdoor lighting based on electricity and maintenance savings from LED conversion should be weighed against other factors, such as the blue light content of white LEDs. Blue-rich white LEDs are among the most efficient light sources in terms of the conversion of electricity to light, and therefore have the lowest electricity cost to produce a given amount of light compared to "warmer," less efficient white LED lamps. At the same time, we should make every effort to diminish or eliminate blue light emission and exposure after dark.

Product Selection Considerations

Choosing LED products for outdoor lighting applications involves a series of considerations and tradeoffs. These include:

- **Luminous Efficiency**(Watts-to-lumens): How much light is produced per input Watt of electricity? More importantly, how many lumens from the light source are meeting the task ("Fixture Lumens" vs. "Lamp Lumens")

- **Lumen Output:** How much light is produced relative to the amount required for a particular task? When replacing existing fixtures, it is important to use the only level of illumination needed, and not to adopt unneeded increases in brightness.
- **Correlated Color Temperature (CCT):** Does the light have a “warm” or “cool” quality?
- **Color Rendering Index (CRI):** How accurately does the light render colors to the human eye? A high CRI is not needed for all situations. The need for good color rendition should be considered relative to the lighting application in question.
- **Adaptive Control Integration:** Does the lighting make use of adaptive controls such as dimmers, timers, and/or motion sensors? These controls are the wave of the future in outdoor lighting and achieve additional energy savings, improve light source efficacy and increase visual task performance. It is important to build in the ability to make use of adaptive controls during the adoption of designs for new lighting installations, even if they will not immediately be implemented.
- **Heat Mitigation:** Is the lamp housing designed to adequately dissipate heat? Because LED efficiency decreases with rising operating temperature, controlling heat emitted by LED lamps is critical in warm climates.
- **Lumen Depreciation:** How robust is the lamp against efficacy loss over time? Manufacturers typically quote “L70,” the expected use time until a bulb reaches 70% of its initial light output.