Solar Farm FAQs

How will you fund the project?
Ideally, we are seeking partners that will make financial donations. These donations can be in the form of lump sums or even as simple as funding e.g a panel(s) - values at E3000 per panel. We welcome all donations payable via our banking details below or contact us for alternative online payment options we can share with you. Please note that donations made in the UK, USA and South Africa may qualify for a tax benefit subject to the T & Cs of that respective region. Debt Finance is the least preferred option we would like to pursue as we aim to reduce costs. Debt would attract interest that could be counterproductive to our efforts of diverting the monthly electricity cost currently incurred to other school priorities. Should we go this route, the 'savings' will be utilized to service the loan.

Are solar panels worth it? Do solar panels ever wear out? How are solar panels outdoing mainstream power sources?
Yes, solar panels are worth it because they are cost saving and a sustainable way of producing energy without carbon emissions. Solar panels do wear out over time, but their degradation is gradual. While generally low, solar panels do require some maintenance, such as cleaning and occasional inspections.

How long will it take to construct?
According to our projections we aim to deliver the Solar Farm by end 2024 once funding has been secured. However, we have also phased the activities as per the phases:

- Phase 1 – Solar Panels Installation & Grid Tie System, Change Transformers (2200 Solar Panels installed).
- Phase 2 – Battery Storage Units Construction (2 x Inverters)
- Phase 3 – Maintenance & Monitoring (Annually)

How much money will be saved as our Eswatini Electricity Company (EEC) bill will be lower?
The school's monthly electricity bill at full operational capacity of the school, i.e. during the academic terms is approximately E500 000 per month.

How much will it cost?
The solar farm itself is forecasted at E40 Million due to the massive amount of storage needed. Our ask is E50 Million. We are acutely aware that the forecasted amount for establishing the Solar Farm is just the tip of the iceberg. Beneath the surface lies various incidental costs that demand our attention and strategic planning. These encompass critical aspects such as insurance, maintenance, infrastructure rehabilitation, fencing, generators, transformers, and even the construction of roads to accommodate the transportation of heavy machinery up the mountain. It's crucial to emphasize that the budget is not merely earmarked for the Solar Farm but also encompasses other impactful sustainability projects, which will be covered by the E10 million. Initiatives, such as the implementation of a new bio-digester, expansion of the permaculture garden, and upgrading of recycling facilities, including greywater recycling, are integral components of our comprehensive roadmap.

What are the environmental benefits of this project?
This solar farm project will greatly benefit our College, especially as we aim to become carbon neutral by 2030. The project will provide significant environmental benefits, primarily through

the reduction of greenhouse gas emissions. By generating electricity from sunlight, solar farms replace energy production from fossil fuels, thereby cutting down on carbon dioxide and other harmful pollutants released into the atmosphere. This contributes to mitigating climate change and improving air quality. Additionally, solar farms often require less water compared to traditional power plants, conserving this vital resource. The land used for solar farms can also be managed to promote local biodiversity, for instance, by planting native vegetation around the panels, which supports wildlife and soil health.

Will WK ensure that there is a company within Eswatini that can carry out maintenance on the panels should something go wrong, and routine services?
Yes, the College will make sure that the panels are maintained.

Solar usually requires a big surface area. Looking at Waterford Kamhlaba's surface area, how is the solar going to co-exist with our nature reserve?
A space has already been identified for this project and it will co-exist with our nature reserve.

There were plans made by Mass Design, how will this merge with the solar farm project?
Yes, this project is consistent with the MASS Design project looking at the overall infrastructure for the school, and it is not just running parallel to it.

Why has WK felt the need to pursue this project?
This is driven by our deeper commitment to environmental sustainability, we want to produce clean energy and reduce carbon emissions as we move towards being carbon neutral by 2030. Also, this will contribute to financial sustainability because we will make savings in the long term.

How will the nearby community benefit from this project?
When the school is on holiday and not using much energy, we will donate it to the neighbouring Waterford communities to benefit places like orphanages and neighbourhood care points.

What learning opportunities will be available for students throughout this project and after?
Waterford students have always integrated sustainability into their activities and this will further help them to think more sustainably and influence their overall understanding of the need to produce clean energy and to have a greener future.

Will you wait until you have the E50 million raised before you start building anything?
Not really. We plan to implement it in phases:

- Phase 1 – Solar Panels Installation & Grid Tie System, Change Transformers (2200 Solar Panels installed).
- Phase 2 – Battery Storage Units Construction (2 x Inverters)
- Phase 3 – Maintenance & Monitoring (Annually)

How much has been raised thus far? Which buildings will run off the solar power?

We are very grateful to all our donors that have demonstrated their commitment to this project and we sincerely thank them for their support. These have included members of the Waterford Kamhlaba Governing Council, Central Management Group, Staff, Alumni and Students. We have also received massive interest from international organizations that are willing to support with expertise and access to investors. This to us indicates that our efforts are being

recognised and there is willingness to support. What we are appealing to as our core appeal is for your support to reach our targeted goal.

The school already has some panels around the campus and all our external lights are solar. The aim is to make the campus 100% Solar, which will include e.g classrooms, hostels, administration block, etc.

Will we be 100% off grid? How much will we save in the long run by going solar?
Yes, we plan to go completely solar and be sustainable when it comes to energy. In the long term we will save the money we pay to the electricity company, which is approximately E500 000 a month at the moment. Saving the environment and attaining Carbon Neutrality by 2030 is our major goal.

How will the school manage the control of heating devices, which use a lot of electricity, like stoves and heaters?

Who are we reaching out to for donations for this solar farm?

We are reaching out to individual and institutional donors, appealing to parents, alumni, business companies, trusts, foundations, and other friends of the school to support this project.

Why 1MW because you are a small school?

We plan to benefit the local community when the school is on holiday, so we are looking at this beyond just the Waterford community, and this is in line with our community engagement goals.