

Subject: Social Development Project: TripleE & BVK School, India.



Introduction

The government funded Bhairavnath Vidyalay Khutbav school (BVK) is situated in rural Maharashtra, India, 50 kilometres away from Pune City – the birthplace of one of our founders.

The school consists of eight grades (5 to 12), is co-educational and does not have a separately attached pre-primary section. The main language is Marathi, a language very similar to Hindi. Despite the rural location of the school, decent roads have been constructed to make the school accessible regardless of weather conditions. The academic year starts each April.

Characteristic for the region and situation of the BVK school are energy related problems such as proper access to electricity, power shortages and similar technical issues.

In the modern-day world of learning, access to electricity for lighting, computers and internet are all vital elements to enable high quality learning, as well as access to

information, lessons and comfort services such as air-conditioning, studying with enough light, et cetera.

Relationship

In 2011, Vikas Pandey, founder and core member of the TripleE team, donated 30+ computers together with colleagues to promote the access and sharing of knowledge and information by the students and teachers. After this, Vikas remained in contact with the school to learn about its developments. Recently, Vikas was informed about the continuous problems the school experiences with power related issues.

Development project

In light of the awareness of the continuous struggles of the BVK school and many other schools alike, Vikas brought the team together to discuss TripleE's possibilities to generate shared value and have a positive social impact on the BVK school and other Indian schools just like them.



Solution

The main idea that TripleE concluded for tackling the schools' power problems is a partnership with [Betteries](#). The idea is to provide stable sources of renewable energy storage in case of power outages and other issues related to the infrequent access of power.

Through applying upcycled (circular) Lithium-ion batteries, released from electric vehicles at end-of-life, power storage systems known as Stationary Energy Storage (SES) can be installed to provide electricity during power shortages or similar power limiting situation.

Upcycled electric vehicle li-ion batteries have a remaining power capacity of 70 to 80% and can therefore still be used to store power, rather than discharge the energy at for vehicle acceleration. In fact, the power storage capacity of reused batteries is such a viable solution that organisations all over Europe have already been implementing SES units for commercial use.

Some examples are:

- Johan Cruyff Arena, applying 3 Megawatt of energy storage with peak shaving using old Nissan Leaf batteries [Link](#)
- Porto Santo (Portugal) using old Renault Zoë batteries for SES [Link](#) as well as other countries and regions (same source)

Besides having a social impact, the use of SES avoids the need for highly polluting Diesel generators that negatively impact climate change as well as the health of the students related to emissions and fumes.

The plan

Together with Betteries, TripleE aims to roll out a phased plan to donate and enable the instalment of SES units at the BVK School and other schools in the region and India altogether. The plan is in early development but would roughly contain the following phases.

Phase 1: (Proof of Concept) Test the usage of upcycled electric vehicle batteries in the non-critical areas within the BVK school. Report on the findings and draw conclusions for follow up step.

Phase 2: (Post evaluation and success of Proof of Concept) Implement similar solutions to the other common facilities in that region where there are issues with electricity such as local hospitals and remote houses in the region.

Phase 3: (Annual check-up) Every year, checks should be done to control and see whether maintenance is needed to the systems and the solutions provide long-term value.

Phase 4: Repeat and widen focus area to other regions and countries.

Current Status:

The BVK school as well as local foundations have been contacted to establish support, credibility and leverage. The foundation is the '[Be Inspired foundation](#)'. Vikas and the owner of Be Inspired are acquaintances that have worked together in the past. Be Inspired works on multiple projects on social development in the region. Additionally, Betteries has been approached to set up talks of collaboration and partnership.