Detailed Project Report
Swachh Kamakhya-Clean & Green Technology

Introduction

The earth is facing serious threats from air pollution. Due to global warming and depletion of the life-saving Ozone Layer of the atmosphere, people are being exposed to more harmful UV rays that have already increased the occurrence of cancer among people. In the long run, it can also make people get lung cancer, skin cancer etc. One of the major causes of air pollution is the emissions from motor vehicles powered by fossil fuels.

A major step towards minimising the emission of harmful contaminants may be replacement of fossil powered vehicles by E-Vehicles.

Clean & Green Technology.

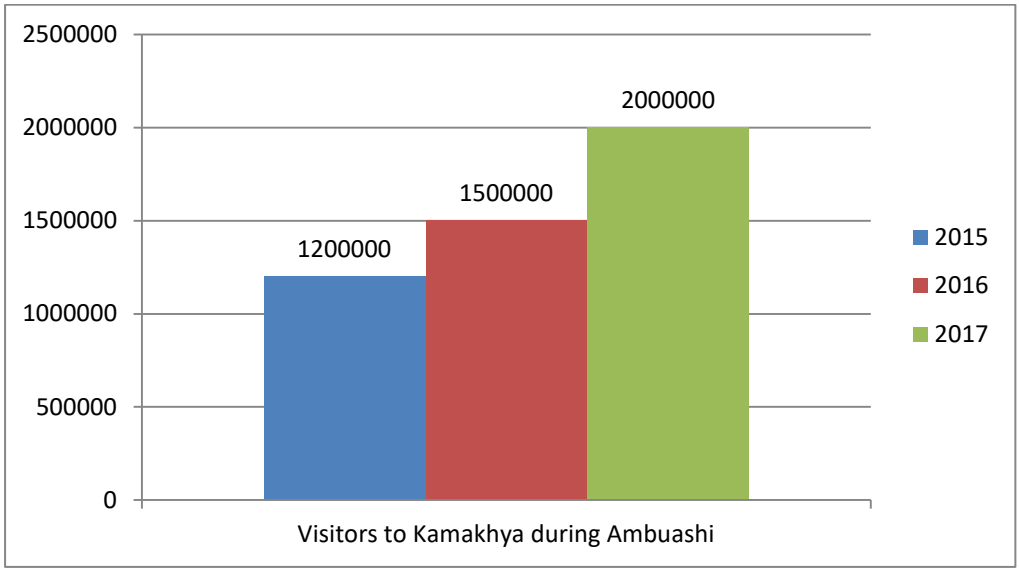
The Kamakhya Temple nestles at an altitude of 800 feet from sea level atop the picturesque Nilachal Hills overlooking the mighty Brahmaputra at the western periphery of Guwahati. It is a cherished pilgrimage destination of the Hindus. Four day long Ambubashi Mela is celebrated at Kamakhya Temple during June-July every year when lakhs of pilgrims and common people throng this sacred place. Besides, thousands of people visit this temple every day since morning till evening. In addition to the visitors, this is home to several thousand permanent priests and their families who have been living here for ages.

Assam State Transport Corporation is currently operating a fleet of 8 buses between Church Field and Kamakhya Temple since morning till evening. All these buses are Diesel operated buses.

In order to ensure environmental protection and to pave the way for sustainable future of the Kamakhya Temple and its surrounding it is proposed to replace these buses by environment friendly E-Buses which is a modern innovation and is a priority of all the Governments throughout the globe.

VISITORS TO MAA KAMAKHYA TEMPLE

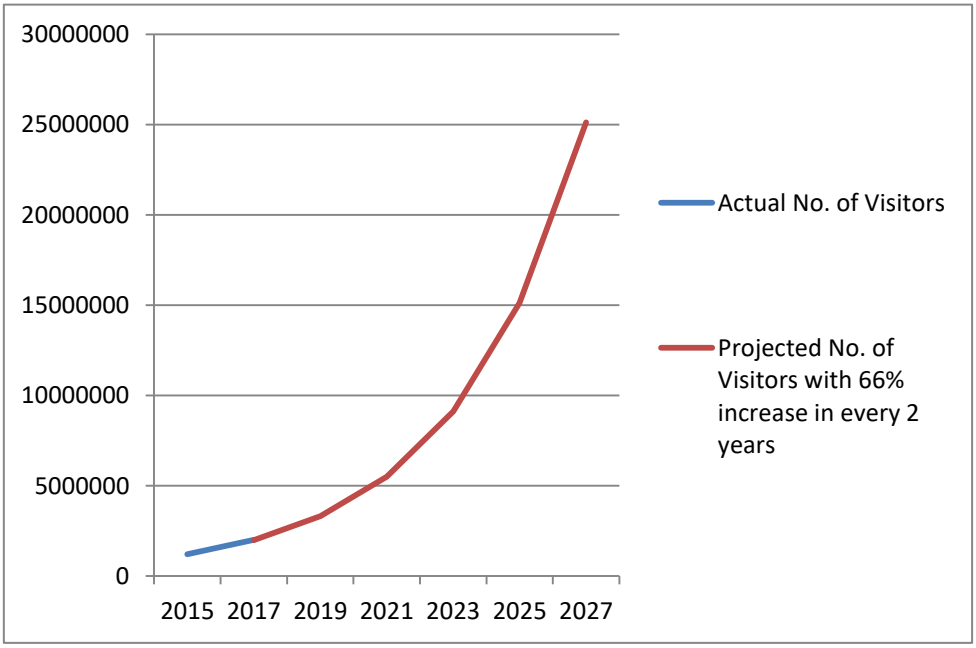
Unprecedented increase in number of visitors to Kamakhya has been witnessed during the last few years. As per statistics provided by the management of Maa Kamakhya Devi Debuttar Board, as many as 12 lakh pilgrims and tourists visited Kamakhya in 2015 during Ambubashi Mela only. This figure rose to 15 lakh in 2016 and 20 lakh in 2017.



(Source: Management of Maa Kamakhya Devi Debuttar Board)

It is observed that number of visitors to Kamakhya during the Ambubashi Mela only has increased by 66% in two years since 2015 to 2017. Keeping this trend in view, the number of visitors to Kamakhya is expected to reach 251 lakh in next 10 years.

	Actual No. of Visitors	Projected No. of Visitors with 66% increase in every 2 years
2015	1200000	
2017	2000000	1992000
2019		3306720
2021		5489155
2023		9111998
2025		15125916
2027		25109021

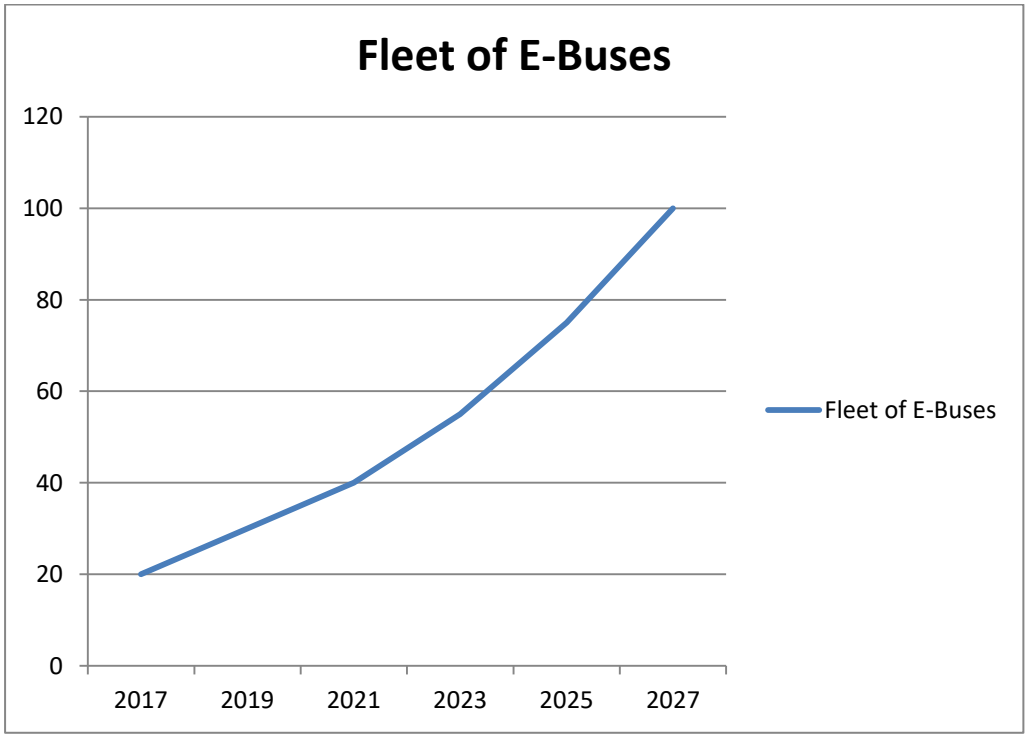


SWACHH KAMAKHYA-Vision 2027

Keeping in view the projected number of visitors to Kamakhya in next 10 years, a decade long programme for increasing the number of E-Buses to give public transport connectivity to Kamakhya is worked out so that with the increasing number of visitors, the fleet of E-Buses is also augmented proportionately, to some extent

Programme of procuring E-Buses in Phases

The fleet of E-Buses is proposed to be procured on 6 phases of 2 years each, thereby increasing the fleet strength to 100 buses by 2027.



ROUTES

It is proposed to connect all the Important disembarking points of Guwahati to Kamakhya with sufficient number of E-Buses increasing gradually every two years. By the end of 2027, it is proposed to operate E-Buses to Kamakhya from LGBI Airport, ISBT-Betkuchi, Khanapara-Mini ISBT, Narangi, Jalukbari and Kamakhya Railway Station etc.

IMPLEMENTATION: PHASE-I

In the first Phase of implementation, it is proposed to procure 20 E-Buses to be operated from Khanapara to Kamakhya at an interval of 8 minutes with some relaxation at off-peak hours for lunch of crew.

Duration of operation	: 5.30 am till 9.30 pm
Route	: Khanapara – Kamakhya Devi Temple
Route Length	: 20 KMs
Avg. Frequency/interval of bus services	: 8 minutes
Running time per one-way trip (excluding lay-over time at termini)	: 75 minutes
No. of Buses required	: 20
Average Vehicle Utilisation	: 120 KMs

SPECIFICATION OF THE E-BUSES in PHASE-I

Following are some of the specifications of the E-Buses proposed to be procured.

Make	: Revolo manufactured by KPIT, Pune
Seating Capacity	: 35
Distance covered per Battery Charge	: 120 km
Length/Width/Height	: ~ 9/2.4/3.2 m
Floor Height	: ~ 0.9 m
Gross Vehicle Weight	: ~10.5 t
Maximum Speed	: 70 km/h
Range with 100% charge	: 120 km
Charging Time required	: ~ 6 hrs for 0% to 100%
	: Slow Charger
	: ~ 80 min for 0% to 100%
	: Fast Charger

Detailed specifications are attached in ANNEXURE-A

COST INVOLVED FOR IMPLEMENTATION OF PHASE-I

Sl	Item	Cost	Cost	Total Cost
1	Basic Price of 1 built E-Bus	1.5 Cr	15000000	
	Add TCS @ 1%		150000	
	Sub-Total		15150000	
	Add GST @28% (at current rate)		4242000	
	Cost of 1 E-Bus		19392000	
	Cost of 20 No E-Buses			₹ 387,840,000.00
2	Basic Price of 1 No 140 kw Fast Charger	30 L	3000000	
	Add TCS @ 1%		30000	
	Sub-Total		3030000	
	Add GST @28% (at current rate)		848400	
	Cost of 1 No Fast Charger		3878400	
	Cost of 6 No 140 kw Fast Charger			₹ 23,270,400.00
3	Basic Price of 1 No 500 kw Slow Charger	20 L	2000000	
	Add TCS @ 1%		20000	
	Sub-Total		2020000	
	Add GST @28% (at current rate)		565600	
	Cost of 1 No Slow Charger		2585600	
	Cost of 6 No 140 kw Slow Charger			₹ 15,513,600.00
	TOTAL			**₹ 426,624,000.00**

Total Cost of the Project: Phase-I

(Rupees Forty Two Crore Sixty Six Lakh Twenty Four Thousand Only.)

(Calculation based on prices quoted by KPIT)

Implementation of this pioneering project will open up a new vista in the arena of sustainable road transport connectivity not only to Kamakhya Devi Temple but also it will be an eye opener towards a Clean and Green Guwahati. Equipped with modern technology and an enlightened workforce, Assam State Transport Corporation is optimistic of implementing the project successfully within the time frame.

Managing Director
ASTC, Guwahati