

A BRIEF FEEDBACK REPORT ON VISIT TO 220 KV SUBSTATION, BIDADA, MANDVI.

DEPARTMENT: ELECTRICAL & ELECTRONICS AND COMMUNICATION
Date: 05/02/2016, Friday
Duration: 1 Day
Venue: 220 KV substation, Bidada, Mandvi, Kutch, Gujarat, India.
Target Audience: All the department students
No. of Students Present: 24
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I. BACKGROUND INFORMATION

India continues to forge its way to an even stronger power grid and nation-wide electrical connectivity. The call of the hour is clear – let no household be without power. Hon'ble Prime Minister Narendra Modi's 1,000 day deadline to power every village has been backed by strong steps. An ambitious target of 175 Gigawatts of renewable energy by 2022 has also been established.

The state has been making massive strides in the power sector and is the only power surplus state in the country. The state witnessed an unprecedented surge of 166% in power production capacity between March 2004 and January 2013. The portion of private players in the power sector also rose from 25% to a substantial 60% in this span of time. A testimony of good governance and sound policies, the state boasts of 24x7 power supply.

Gujarat has an already established power ecosystem and it looks to be growing with time. Vadodara, is a key component of this power ecosystem.

II. SCHEDULE OF EVENTS

The schedule of sections which were visited was as under by Bus:

- AVITER to Bidada substation on 10:00 am
- Bidada substation to AVITER on 03:00 pm

III. BRIF OF VISIT

• We were welcomed by line inspector Mr. B C Patel. Then we started the site visit with incoming lines from Adani Power, CGPL, Sindhodi (Suzlon Wind farm). We saw all the transmission line components viz Lightning Arrestor (LA), Potential Transformer (PT), Circuit Breaker, Current Transformer (CT), Isolator etc.

- As the incoming line was 220kv it is required to step down to 66kv which is further transmitted to 66kv substations at Nani Khakher, Kera, Anjar, Nana Asambia, Mota Asambia, Kodai and many other substations(66kv).
- We also visited step down transformers 220kv to 66kv and 66kv to 11kv. 66kv to 11kv transformer is used for their power requirement. The other components we saw are capacitor banks, different cables used for power transmission, reactors, megger, insulator etc.
- Then we visited site under construction were we took reading of insulation of CT using megger.
- After having tea (sponserd by Mr. B C Patel) we visited the battery room, communication room, control room. In control room we saw different panels using tripping systems.

IV. COMMENTS ON THE CONDUCT OF EVENTS

During the entire visit, the organization was found to be very cooperative in every walk of its administrative and managerial aspects. The students acquired knowledge of the different electrical & other products. The students asked several questions and all the experts were happy to satisfy their queries. This visit was full of excitement and enthusiasm.

V. BENEFITS AND RECOMMENDATIONS

The students found this industrial visit very useful. This visit improved the student's knowledge of various instrumentation equipment presently being used in industry and how transmission lines are working. Students were amazed at the speed at which the process occurred and how the automated systems could work according to the requirements. The students were expecting more visits like this one.