LOCATION

Nimli Village, Tijara
Tehsil, Alwar, Rajasthan

Distances
Delhi (via Bhiwadi): 121 km
Gurugram (via Bhiwadi): 86 km
Gurugram (via Ferozpur Jhirka): 108 km
Bhiwadi: 46 km
Alwar: 62 km
Tijara: 15 km
Ferozpur Jhirka: 11 km
NATURAL SETTINGS
Conserving and Reviving water channels and controlling erosion

Retain native trees and landscaping

Optimizing Ground Coverage and reducing impervious services
AAETI

TYPOLOGY AND ORIENTATION

Appropriate Building Typology

Response to wind

Courtyard typology and its effect

Shading of south facing windows

Response to sun for thermal comfort
Temporary structures made up of rammed earth from the site

Stones from the site are utilized in boundary wall construction

Recycled iron bars from construction are used for this gate and similar elements

Recycled and Recyclable Material

Minimize construction waste
Highly reflective surfaces bounce off radiation. Good insulation protects the outside heat to enter inside.

Light shelves in corridors allow natural light to filter in and allow hot air to escape.
Storage Tank - Number - 2; Capacity - 100 KL (each); Use = Potable purposes

Recharge Well - Number - 8; Groundwater recharge
Reducing parking lot imperviousness

Planted native species and constructed anicut on natural stream increases groundwater recharge
Campus will produce 300 kWh of power currently which will offset 30-40% of the total energy demand.

Self closing taps and fixtures and LED bulbs reduce water and energy usage.
Campus will have waste segregation system & recycle 100% of organic waste onsite.

Capacity – 8 KLD
Reuse
Horticulture (Academic & Faculty block)

Capacity – 20 KLD
Reuse – Horticulture + Flushing (Staff, SHB 1 & 2 & Cafeteria)

Capacity – 2 KLD
Treated water is used for recharging groundwater (Guest House)
Key performance indicators

A. Water Positive Campus
• 100% wastewater recycle & reuse
• 86 LPCD freshwater use – 36% lower than the norms
• Harvested rainwater: 110% of the freshwater wastewater consumption

Groundwater level at AAETI, Nimli

Water level below ground (mbgl)

Jan-16 Feb-16 Mar-16 Apr-16 May-16 Jun-16 Jul-16 Aug-16 Sep-16 Oct-16 Nov-16 Dec-16 Jan-17 Feb-17 Mar-17 Apr-17

- Groundwater (mbgl) Near Stream
### Key performance indicators

**B. Energy efficient & renewable energy Campus**

- Designed for 100% renewable energy based off-grid campus
- Electricity consumption 34% less than standard design
Key performance indicators

C. Zero waste Campus
- Designed for 100% recycle & reuse of all wastes
- Treated wastewater to be reused for flushing & horticulture
- Organic solid waste to be composted & used as manure
- Inorganic solid waste to be sent for recycling
- Laboratory waste to be stabilized and disposed at TSDF site
Thank you