

# Stadtwerke Gandhigram – Multi Utility Company



By,  
Sreenath C  
iPLON India Pvt Ltd

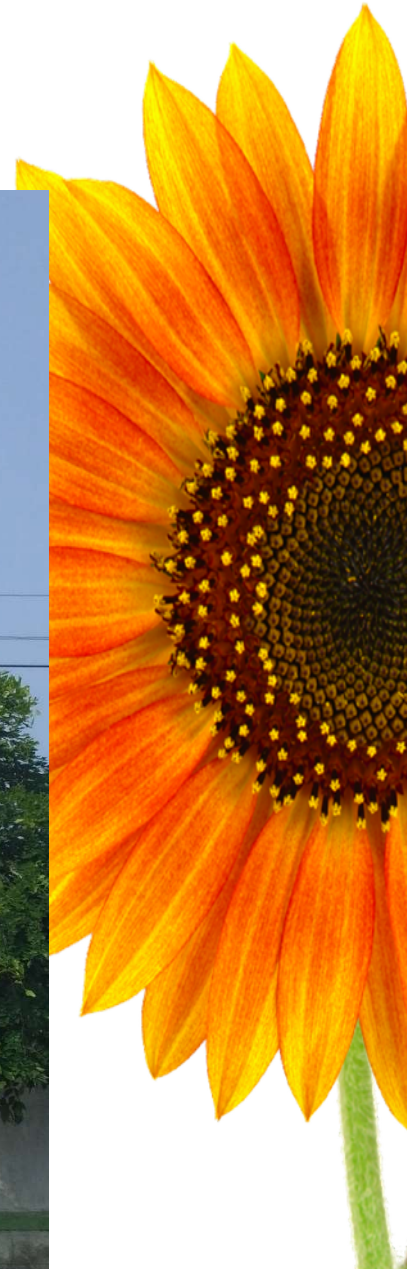


Be the change you want to see in the world  
- Mahatma Gandhi





# iPLON Gandhigram Office



# iPLON Gandhigram Staff

New office near GRI since March 2017

- Lumine Divya A – M.Tech Renewable Energy (2014-2016)
- Elakiya M – M.Tech Renewable Energy (2015-2017)
- Venkateswaran M --M.Tech Renewable Energy (2014-2016)
- Students from GRI

## iPLON Chennai Staff

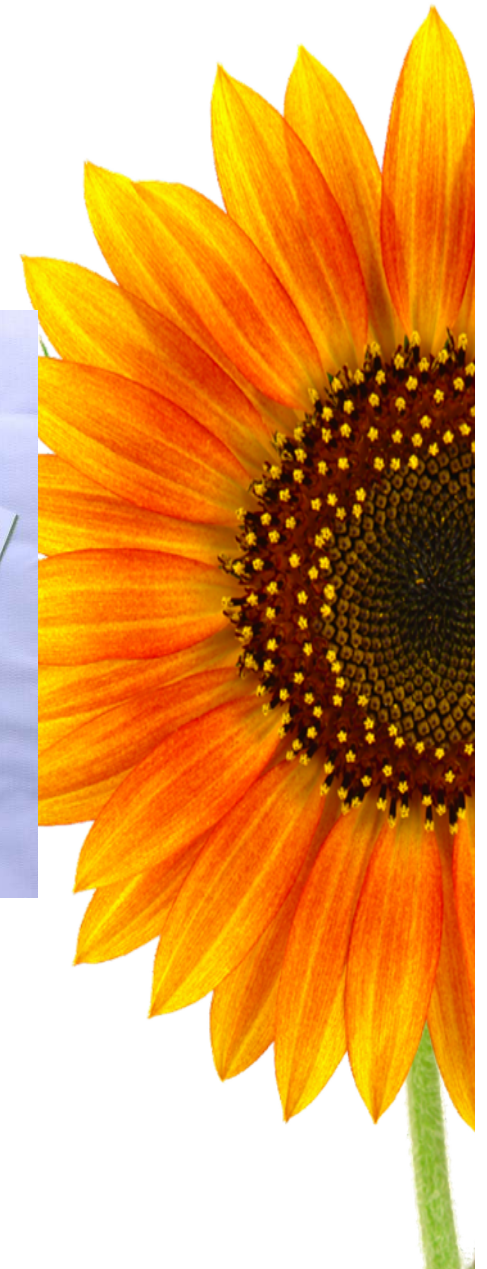
- 8 Master students from Renewable Energy (2014-2016)
- 2 Master students from Renewable Energy (2015-2017)





# Focus areas

- Energy management
- Water Management
- Waste Management
- E-mobility



*“An ounce of practice is worth more than tons of preaching”*  
- Mahatma Gandhi



# Why Stadtwerke Gandhigram???

- Because of De-central thinking (Gandhian Principles)
- Past achievements (solar street lighting, biogas plant. electromobility)
- Aware (respect for Energy, Water, Cleanliness)
- Domain Knowledge
- Possibility to make a difference
- Already motivated



# Energy Management

1. Sectorisation
2. Architectural Diagram of three Transformers
3. Monitoring of SS02 transformer using iBox - demand side management (SS 18)
4. Installation of Snappee Box
5. Simulation

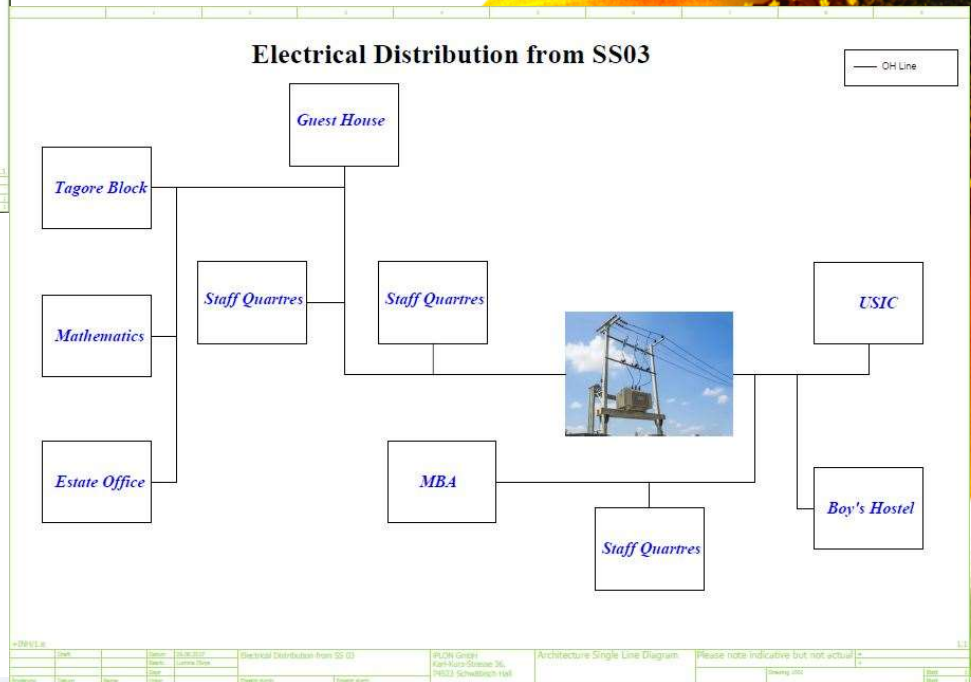
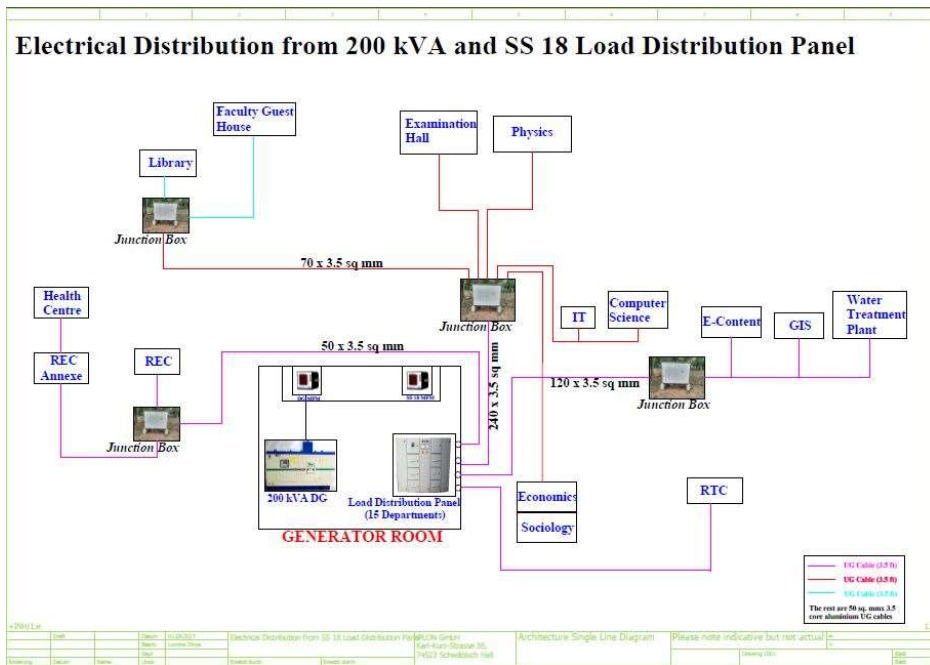




The image is a composite. On the right side, there is a large, vibrant sunflower with yellow and orange petals and a dark brown center. On the left side, there is a map of Idara Rajiv Gandhi Chattram. The map shows the location of the chattram relative to the city of Idara. A compass rose is positioned above the map, indicating the cardinal directions: North (N), South (S), East (E), and West (W). A small inset map at the bottom left shows the location of Idara within a larger geographical context.

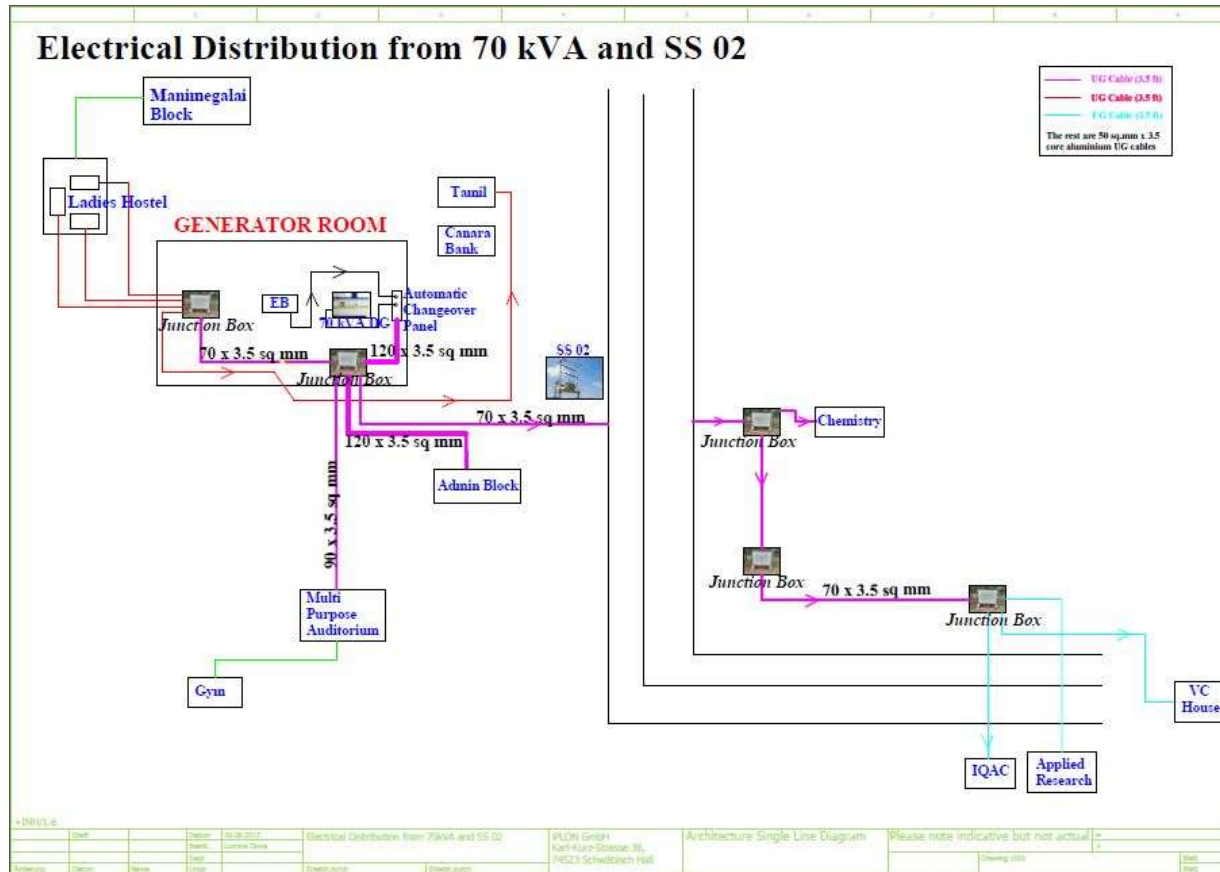


# AD for Three Transformers





# Monitoring of SS02 using iBOX



Grafana : <http://pv-india.eu:3001/>

Portal : <http://git.pv-india.net/>

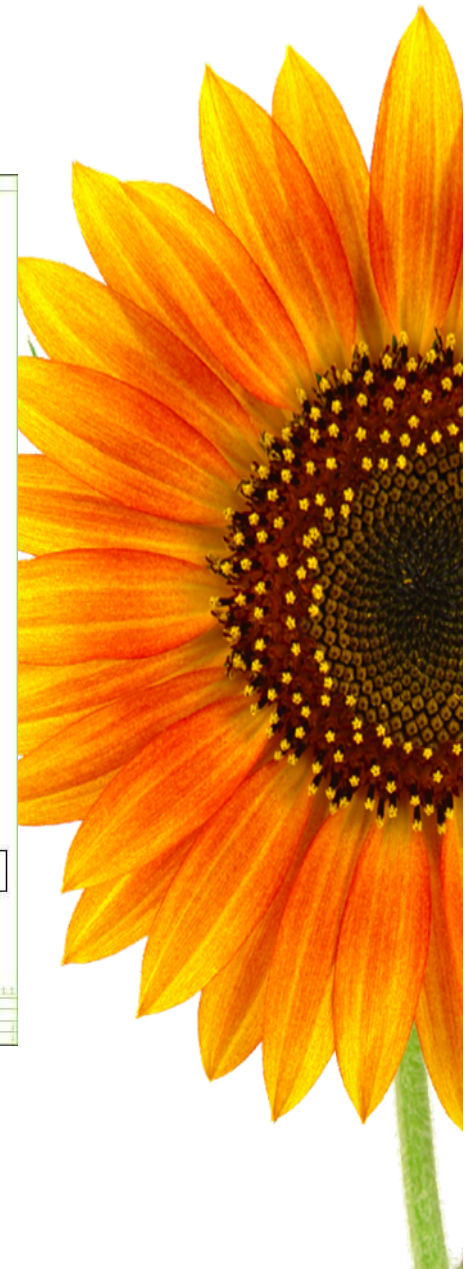




Image of iBox monitoring SS02

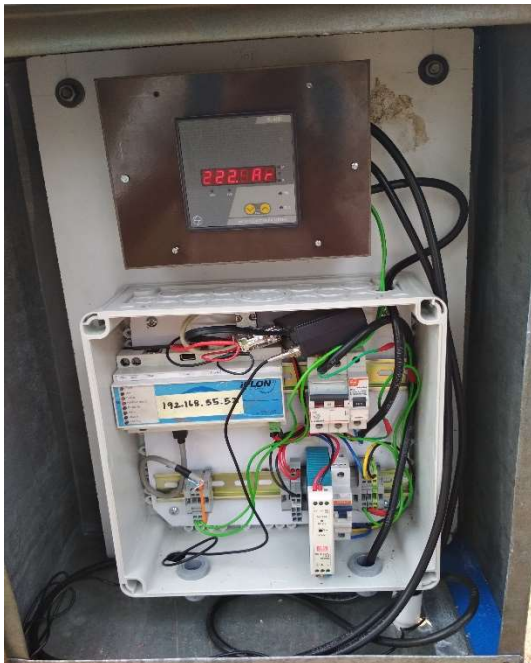


Image of Smappee energy monitor installed in REC laboratory

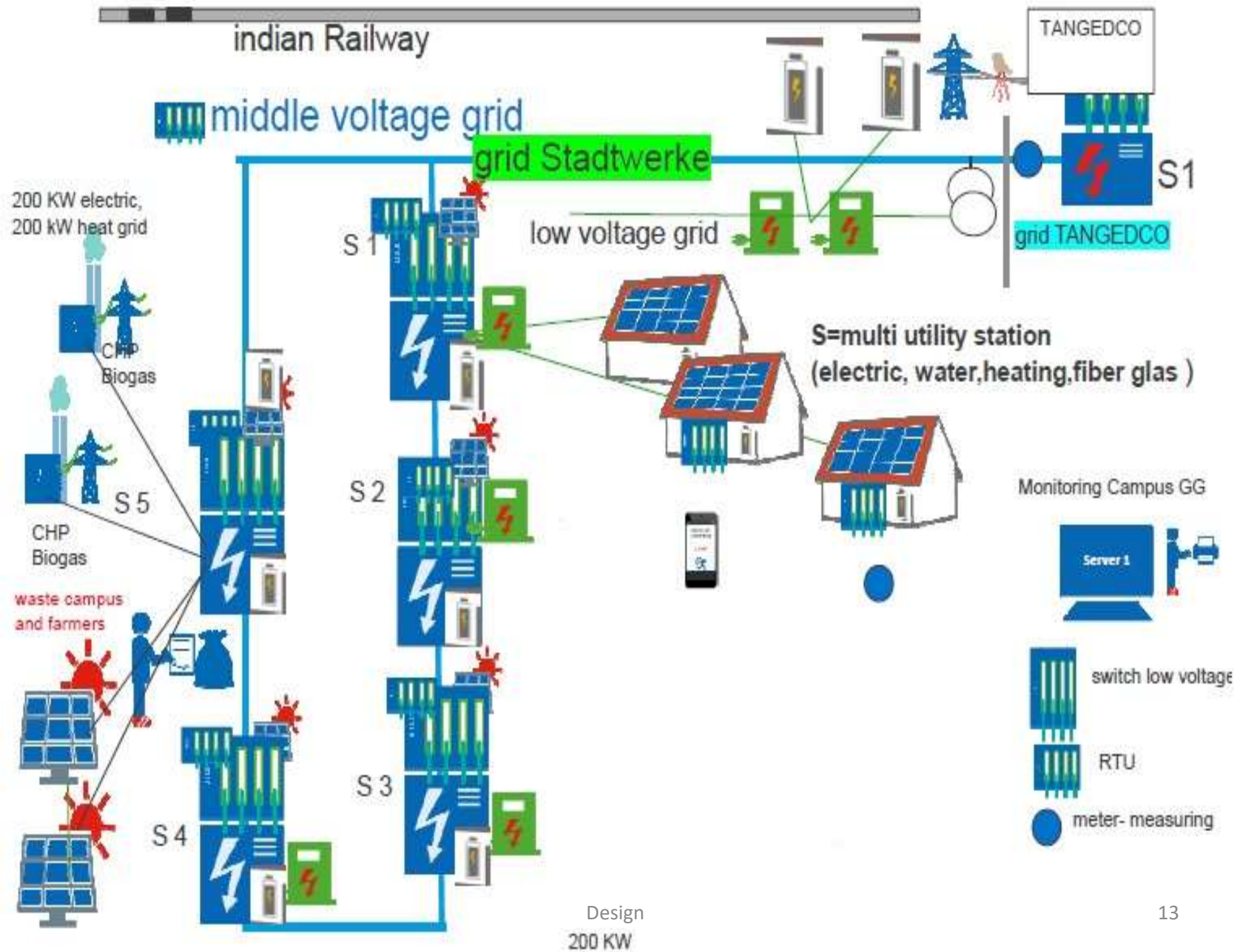


# Smappee

- Smappee energy monitor detects all of the essential appliances
- Installed at: Renewable Energy Centre (Laboratory)
- <https://pro.smappee.net/login>
- More insight into real-time consumption
- Get reports of leaks or danger
- Know exactly what happens
- Save up to 30%

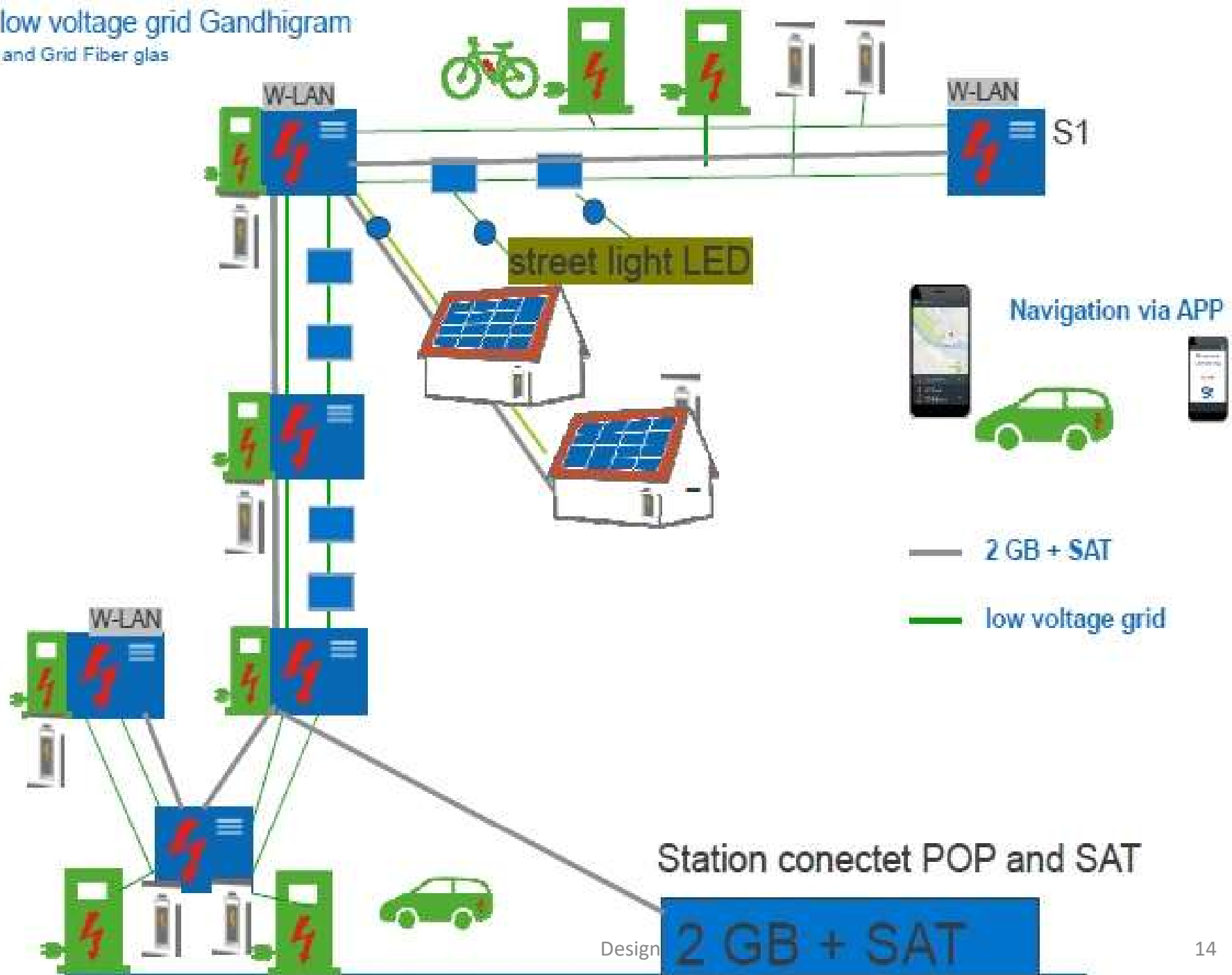








# low voltage grid Gandhigram and Grid Fiber glas



# Water Network

1. Sectorisation of water
2. Identification of sumps and their capacity
3. Water level sensor for OHT tank

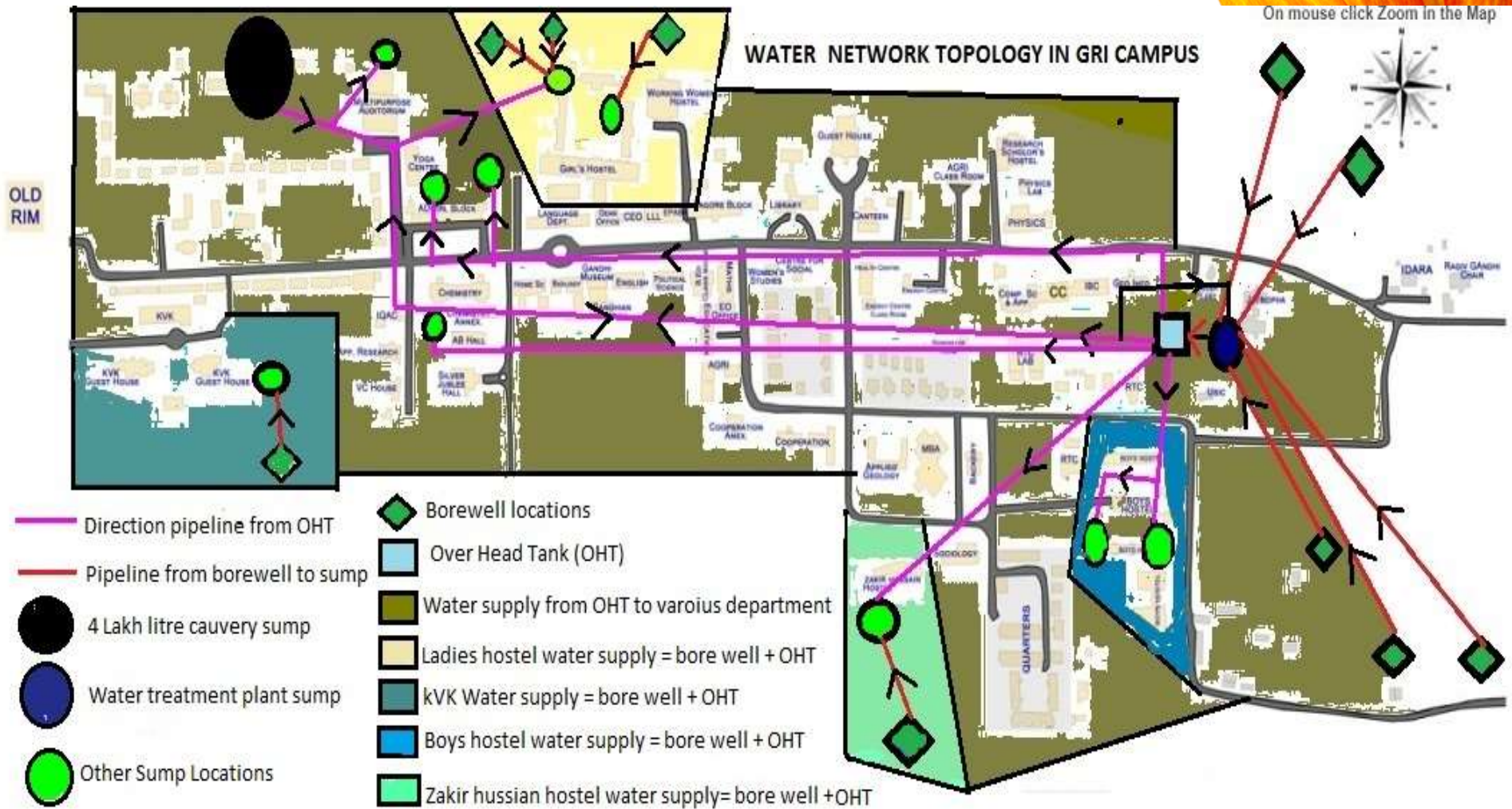




# Sectorisation



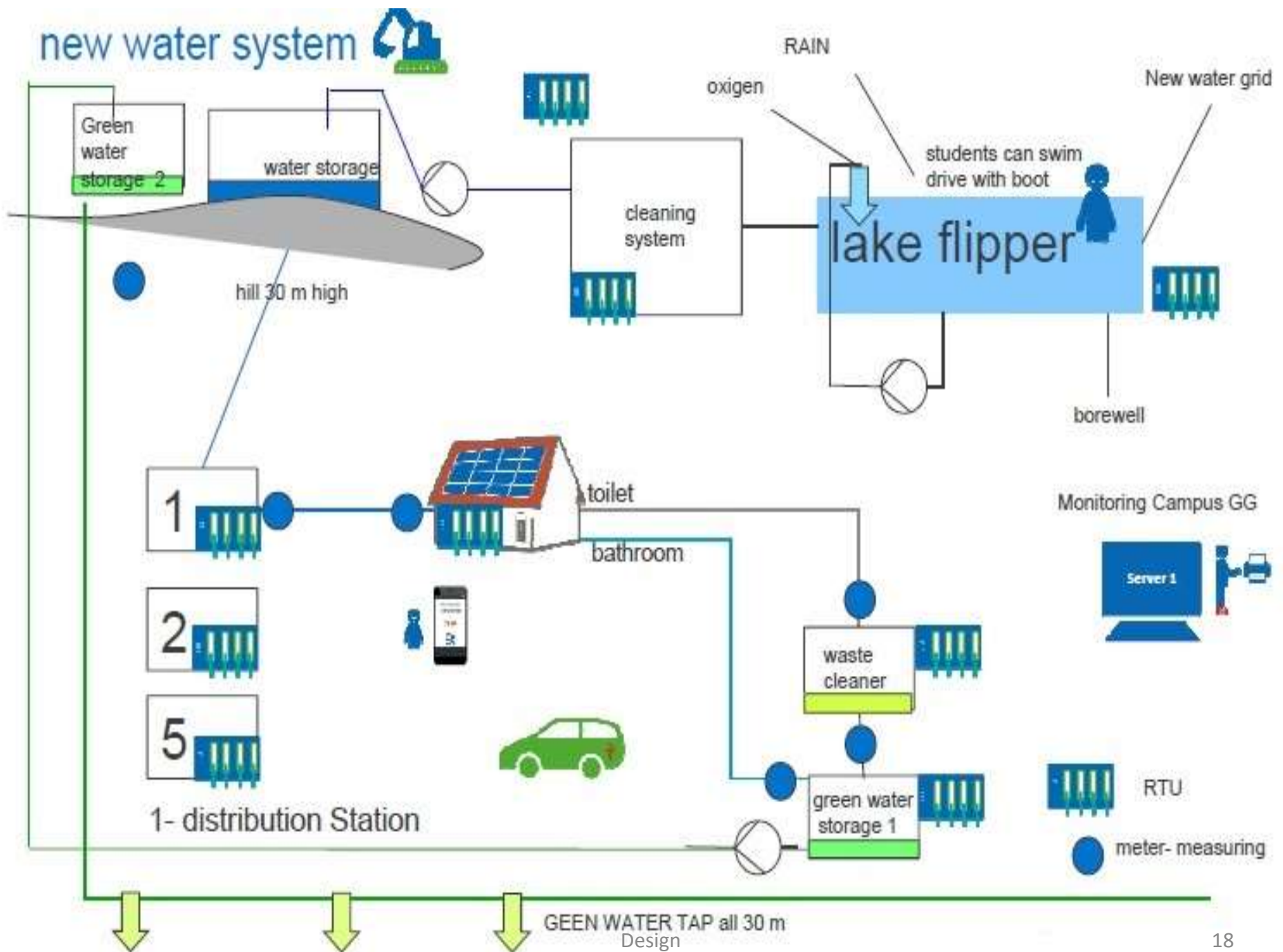
On mouse click Zoom in the Map







# new water system



# Waste Management

- Sectorisation
- Segregation of waste
- Understand the topology/ pipelines laid (sewage water)
- Possibility to install a recycling plant





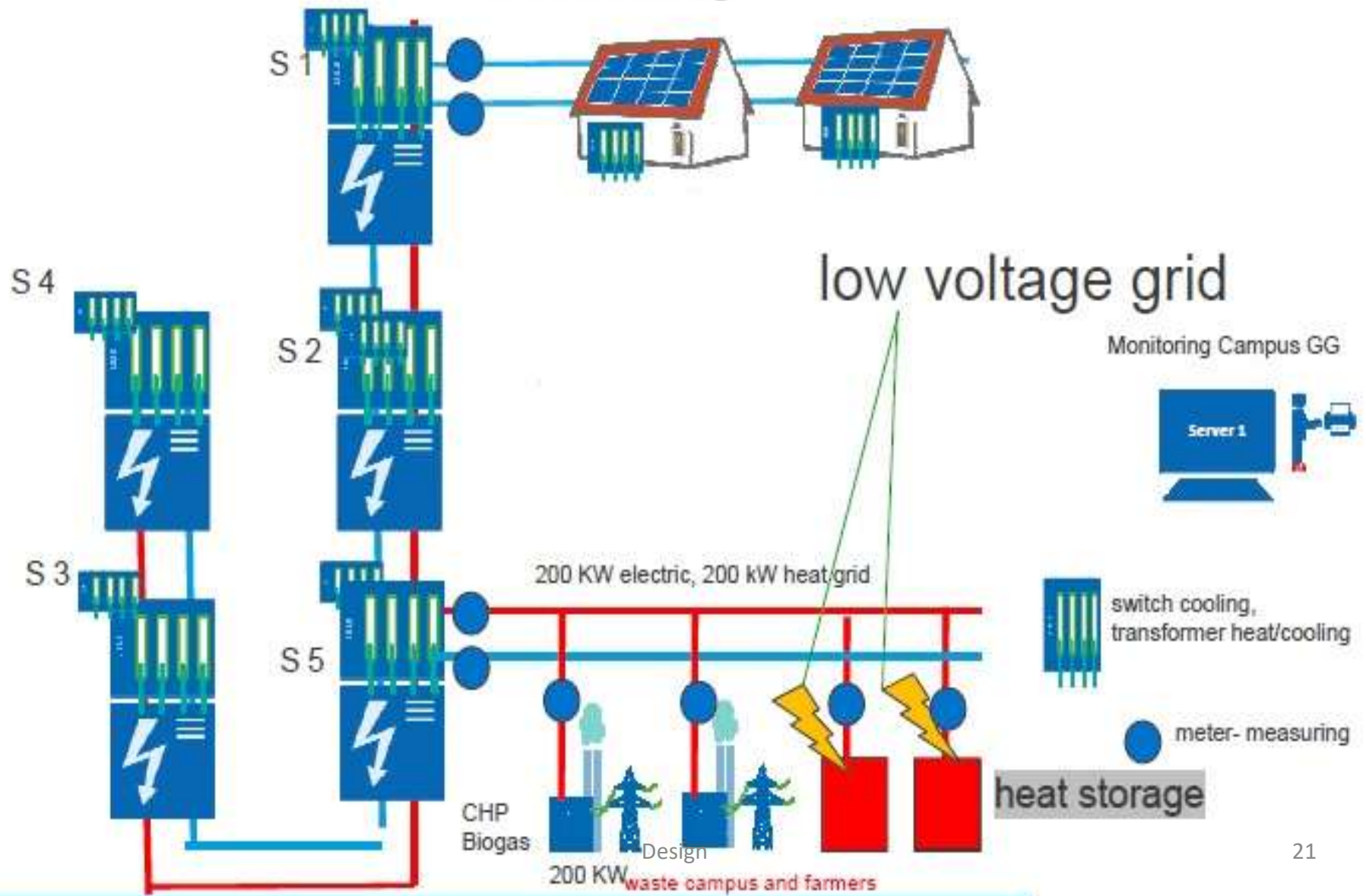
## A close-up photograph of several bright yellow flower petals, likely from a daisy or similar flower. The petals are elongated and pointed, with visible veins. They are arranged in a fan-like pattern, with some overlapping. The background is a solid, bright white, making the yellow petals stand out prominently.



# heat grid Stadtwerke Gandhigram

S=multi utility station  
(electric, water, heating, fiber glas )

absortion cooling





# Electro-mobility

**Objective:** To create a pollution free environment

**Focus:**

- To built nearly 3-4 carports that are completely energized by solar
- Identification of the location for building carports
- Buying of electric vehicles so as to be parked under the carport
- Making use of the existing electric vehicles





all sytems are in the ground

underground



0,8 m

Fiber

MV

LV

Heat G



Design

# How do we achieve together??

- GRI's involvement in implementation to make it sustainable
- iPLON and its network (SMEs in Germany and India)
- A people's movement (Gandhiji's way!!)



# Visits to Gandhigram

NAME	DESIGNATION
Victor Thamburaj	CEO, iPLON GmbH
Peter Breuning	Head of Department: Grid Control and Engineering Service, Schwaebisch Hall
Christoph Blaschke	Next Solar Concepts
Abhijit Singh Sachdeva	iPLON India Pvt Ltd
Thomas Karle	Biogas Specialist, Germany
Lea Sophie Karle	Intern, Germany
Sebastian Neven-de Mount	Intern, Germany

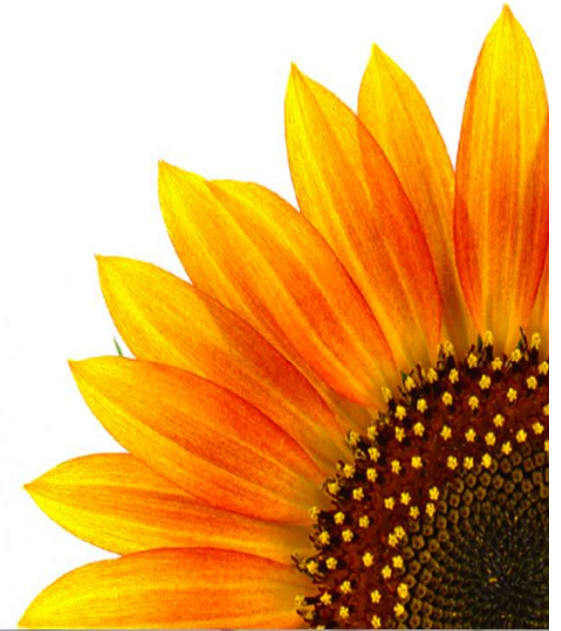




Success is easier to achieve when  
all are on one side

Thank You!!!







# Workshops

