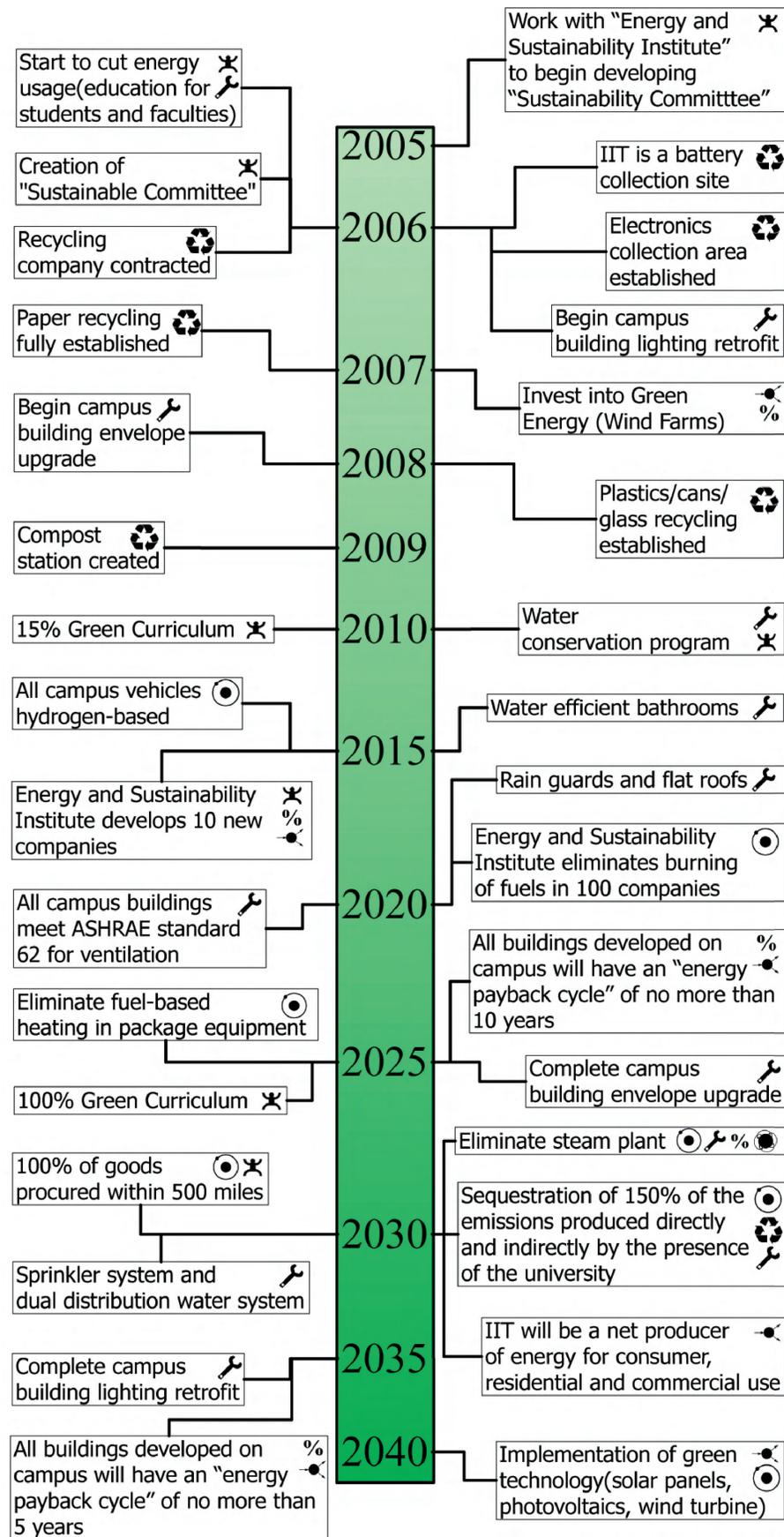


IIT Roadmap



Sustainable Village IIPRO301



Consumer to Producer

A sustainable village will not only support itself from the resources that come naturally to it, but will provide energy, clean water and clean air in a usable form for other communities.

Waste Stream Utilization

The focus of a sustainable village is on maximizing the redistribution of waste products of one process so that they become the inputs to another.

Conserve, Optimize, Maintain

In order to become net producers of energy, and utilizers of waste, the sustainable village must conserve energy, optimize the processes that support the population, and maintain those processes so that they work as effectively as possible.

Eliminate burning of fuels

The practice of burning fuels has released pollutants and greenhouse gases into the atmosphere at a rate which the environment cannot process. A sustainable village will not produce any more pollutants, either directly or indirectly, than its environment can process.

Public Participation

Cooperation among members of the community must be present at all levels. Each individual must make their own choices, and do so in the interest of the village.

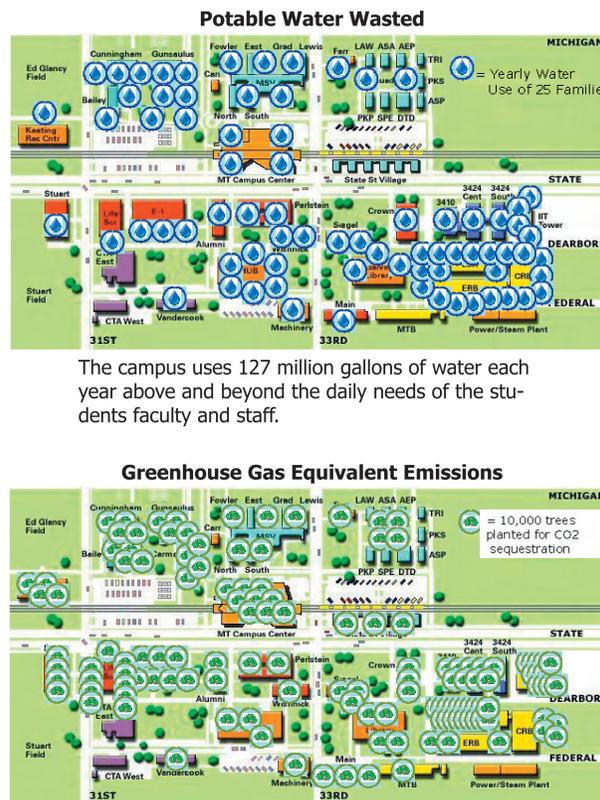
Treat Energy as Capital, not a Commodity (Energomics)

In a sustainable village, energy is treated like capital, like a resource to be wisely invested, saved, and used when needed to meet the needs of the village.

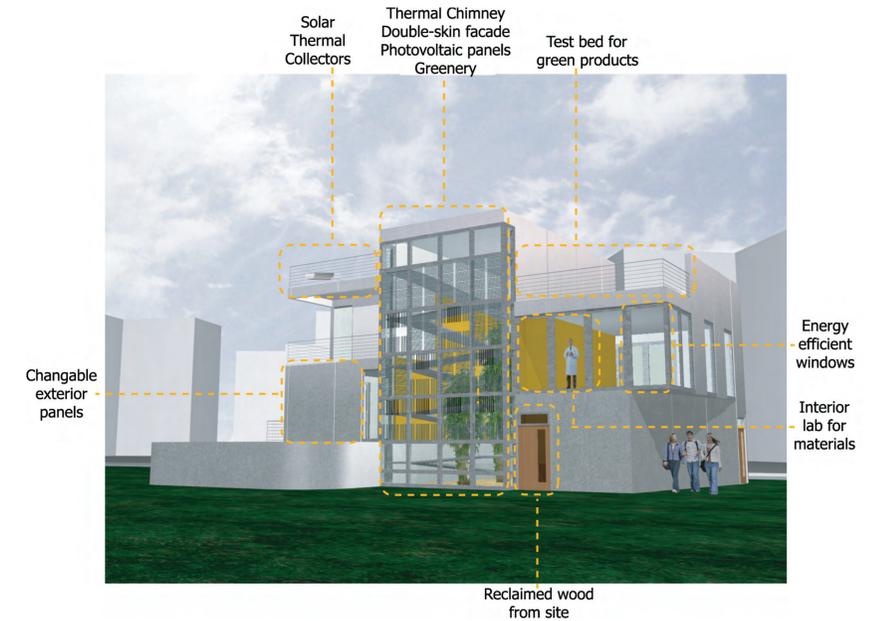
Green Unit

The village is broken down into its essential units – for a university campus, those units are the classroom, dorm and office – and then each unit is made as sustainable as it can be.

IIT Main Campus Ecological Footprint



House of the Future



By applying the seven philosophies identified for the achievement of a Sustainable Village, the House of the Future will serve as a demonstration project of sustainability and a showcase of innovative technologies.

- Passive solar design: Natural ventilation, Solar chimney, Double-skin facade
- Renewable energy: PV panels, Solar thermal, Geothermal, Fuel cells
- Interactive technologies: Exhibition, Display, Lab space
- Energy efficient windows
- Energy efficient appliances
- Roof materials testing
- Green roof
- Recycled materials
- Indoor landscaping
- Movable interior walls
- Changeable exterior panels
- Water efficient fixtures
- Storm water reuse

