

The Green Road of the University of Zanjan to Sustainable Development

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Abstract. The University of Zanjan, Iran, is a state university with one of the largest sites in the country. The nearly 400 hectares site creates opportunities and imposes challenges to the management system. The application of green management process helps to overcome the new and various environmental challenges caused by climate change. The practical measures of the process at the university include:

- Efficient usage of energy by improving the thermal insulation of existing buildings
- Considering architectural technologies in the design process of new developments aiming passive energy savings
- Applying modern HVAC systems for building services, which has improved energy efficiency
- Adjustments of the internal electricity grid of the university
- Adjustments of the internal water network, irrigation grid and sewage systems of the university, in order to reduce environmental impacts of human activities. Planned arrangements include:
 - Power generation by CHP plants in six months
 - Installation of a large grid of solar panels and wind turbines to increase renewable energy generation to %20 of the regular demand in three years
 - Modernizing water and sewage systems

The green management process also covers a whole range of cultural movements and educational activities to increase social awareness and sensitivity among academics, students, officers and visitors about the importance of the environment and natural resources for the long term sustainable development of the university as well as the Zanjan region.

Keywords: Sustainable Development, Green, Water Network, HVAC.