Govt. Degree College, Timarni

Dist.- Harda (MP)

(Affiliated with Barkatullah University,Bhopal)

Accredited by NAAC with 'B'

College Code :- 3208 www.gdctimarni.in AISHE Code :- C-35109

7.1 Institutional Values and Social Responsibilities

7.1.2 Environmental Consciousness and Sustainability and Divyangjan Friendly Initiatives

Office of The Principal Govt. Degree College Timarni, Dist. Harda (M.P.)

College Code : 3208

Phone/ Fax : 07573-292018 E-mail Id- hegctimhar@mp.gov.in

No./ 421 /2023 Date : 15/06/2023

Declaration

This is to declare that the information, reports , true copies and numerical data etc. furnished in this file as supporting documents is verified by IQAC and found correct.

IQAC Coordinator
Director/Co-ordinator
Internal Quality Assurance Cell
Govt. Degree College, Timarni (3208)
Distt. Harda (M.P.)

Principal
Govt. Degree College
TIMARNI (HARDA)M.P.

Signature valid JINENDR A KUMAR JAIN

7.1.2 The Institution has facilities and initiatives for energy conservation and disabled-friendly environment

Link for supporting documents	http://gdctimarni.in/c7_12.html
Policy document on Green Campus	http://gdctimarni.in/pdf/7_121new.pdf
Geo-tagged photographs of the facilities	http://gdctimarni.in/pdf/7_122.pdf
Circulars and reports of activities	http://gdctimarni.in/pdf/7_123.pdf

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प्रो. (डॉ.) जसपाल एस. सन्धू
सचिव
Prof. Dr. Jaspal S. Sandhu
MBBS, MS (Ortho), DSM, FAIS, FASM, FAFSM, FFIMS, FAMS
Secretary

विश्वविद्यालय अनुदान आयोग
University Grants Commission
(मानव संसाधन विकास मंत्रालय, भारत सरकार)
(Ministry of Human Resource Development, Govt. of India)
बहादुरशाह ज़फ़र मार्ग, नई दिल्ली-110002
Bahadur Shah Zafar Marg, New Delhi-110002
Ph.: 011-23239337, 23236288,
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D.O.No.F.91-1/2016(Secy) **10th March, 2016**

Dear Sir/Madam,

The Urbanization and economic development are leading to a rapid rise in energy demand in urban areas in our country leading to enhanced Green House Gas (GHG) emissions. Many cities around the world are setting targets and introducing polices for promoting renewable energy and reducing GHG emissions. Accordingly, the Ministry of New and Renewable Energy, Government of India has taken initiatives to develop green campuses under ***"Development of Solar Cities"*** Programme which aims at minimum 10 per cent reduction in projected demand of conventional energy at the end of five years. The guidelines of the programme are available on UGC website i.e. www.ugc.ac.in and also on MNRE website i.e. www.mnre.gov.in.

To become a partner in this noble cause, I request you to kindly send the proposals, complete in all respects, as per the guidelines to the Director (Solar Cities), Ministry of New and Renewable Energy, Block 14, CGO Complex, Lodhi Road, New Delhi-110 003. For any query/clarification, you may please contact Director (Solar Cities) by email at aktripathi@nic.in

With kind regards,

Yours sincerely,

(Jaspal S. Sandhu)

The Vice-Chancellor of all Universities.

Copy to:

Publication Officer, UGC for uploading on UGC website.

(Jaspal S. Sandhu)

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Development of Green Campus/townships/SEZs/ industrial towns, Institutional campus under the "Development of Solar Cities" programme

Invitation of Proposal

The Ministry is implementing a programme on Development of Solar Cities wherein about 100 small townships/campuses (new and the existing one), duly notified/permitted by the concerned Authorities being developed by the promoters/builders, SEZs/ industrial towns, Institutional campus etc. are proposed to be developed as green campus during the 12th five year plan. The financial assistance Upto Rs. 5.00 lakh for preparation of a Master Plan and DPR including the action plan for renewable energy installations, green campus development, awareness generation and trainings etc. is available.

2.0. The installation of renewable energy projects/systems in these entities will be done as per provisions of various schemes of MNRE.

3.0. The tentative guidelines for the green campus is given in Annexure - I. The format for submission of proposal is given in Annexure – II.

4.0. The proposals are invited from the organizations who are interested and committed for developing their campus as green campus. The proposal should be prepared by the respective developer/builder/institution/RWA etc. in prescribed format with the commitment in the suitable bond paper indicating that the installations of the projects/systems/devices of Renewable Energy will be under taken after preparation of the Master Plan/DPR.

The proposals may be submitted to:

Director (Solar Cities)
Ministry of New and Renewable Energy
Block 14, CGO Complex,
Lodhi Road, New Delhi -110003.
Telefax: 011-24363035
Email: aktripathi@nic.in

For further details on the "***Development of Solar Cities Programme***" please visit the MNRE's website at www.mnre.gov.in

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Annexure - I

GUIDELINES FOR DEVELOPMENT OF GREEN CAMPUS

At present the large area development i.e., for townships, neighborhoods, educational and institutional campuses, medical colleges, hospitals, group housing, commercial complexes etc. is taking place in a fast track mode in the country through private and public sectors and even by the Government. In order to ensure energy efficiency and environmental sustainability, these developments need to be on "Green Campus" concepts.

2.0 A green campus is a higher education community with optimum land use, environmental planning and resource management i.e., improving energy efficiency, conserving resources, enhancing environmental quality including habitat preservation, healthy living environment, use of renewable energy and management of wastes, water recycling etc.. The buildings within the campus should be based on green building concepts to the extent possible.

3.0 The Ministry of New and Renewable Energy has taken initiatives to develop green campuses/ townships under "***Development of Solar Cities Programme***". A financial CFA for preparation of a Master Plan and DPRs including the action plan for small townships/campuses being developed by the promoters/builders, SEZs/ industrial towns, Institutional campus etc. Upto Rs. 5.00 lakh for preparation of a Master Plan and DPR including the action plan for renewable energy installations, green campus development, awareness generation and trainings etc. will be provided for each new and existing small townships/campuses duly notified/permitted by the States/Local Authorities. This will also be applicable for the existing townships/campuses. The existing campuses will be encouraged to have suitable retrofitting's of renewable energy and energy efficiency equipment's/measures to the extent possible to make them green campus. The installation of renewable energy projects/systems in these entities will be done as per provisions of various schemes of MNRE.

4.0 While developing the green campus, following guidelines may be taken in to consideration:

A. FOR DEVELOPMENT OF EXISTING CAMPUS AS GREEN CAMPUS

i. The energy audit and water audit of the entire campus should be carried out through registered certified professionals and the base line for the energy and water consumption should be defined.
ii. Energy efficient measures including energy efficient street lighting system with proper control, low energy fixtures, energy efficient pumping system, energy efficient motors and other equipment's, sensors for lighting, use of energy star rating equipments, improvement of power factor, use of variable frequency drive and other energy efficient technologies should be adopted and reflected in the proposed master plan.
iii. Utilization of renewable energy system such as solar water heater, solar air conditioning, solar dryers, solar cookers, solar lantern, solar pumps, solar traffic signals, battery operated vehicle, hybrid systems etc. should be explored.
iv. Solar cooking systems must be utilized for hostels/hospitals etc. All houses, hostels, kitchen must have solar water heaters (including multi-storied buildings).

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v. The buildings in the campus should have rooftop SPV systems preferably grid connected systems.

vi. A master plan for the entire campus should be prepared keeping in view the overall reduction in fossil fuel based energy by 25% within next 5 years by utilizing renewable energy applications, and taking suitable measures for energy conservation and energy efficiency.

vii. The master plan should be site specific and should have minimum 5 numbers of implementable a detailed project reports as per guidelines of MNRE and BEE under various schemes. An audit report should be prepared and submitted alongwith the master plan.

viii. An awareness/training workshop should be organized in the campus regarding renewable energy applications, and taking suitable measures for energy conservation and energy efficiency.

ix. Suitable architectural retrofit options for building envelop (floor, roof, walls etc.) and energy efficient glasses for windows should be explored and included in the report.

x. The possibility of redesigning of exterior surfaces of the buildings with energy efficient material may be explored.

xi. Any other innovative actions/ points to be taken for making existing green campus.

B. FOR DEVELOPMENT OF NEW CAMPUS AS GREEN CAMPUS

i. Simply making green buildings would not create a green campus; however, it should be sustainable also. A green campus should follow the optimum path for :
   - land use vis-à-vis population density
   - Vertical or horizontal growth
   - Infrastructure including pitched roads
   - Transport (more walkability & less use of vehicles)
   - Renewable energy use and Energy conservation,
   - Waste management and water conservation

ii. All buildings in the campus may be green buildings preferably rated with rating systems in vogue i.e. GRIHA, LEED India, ECBC compliant buildings etc..

iii. A master plan for the entire campus should be prepared keeping in view the overall reduction in fossil fuel based energy by 25% within in next 5 years by utilizing renewable energy applications, and taking suitable measures for energy conservation and energy efficiency.

iv. The master plan should be site specific and should have minimum 5 numbers of implementable a detailed project reports as per guidelines of MNRE and BEE under various schemes.

v. The master plan of the campus should follow optimum floor area ratio, controlling of soil erosion, avoiding contamination of air and natural water bodies. The natural water bodies and trees should be protected accordingly the layout plan should be prepared.

vi. Dense planning may be preferred over dispersed layout to avoid use of excessive motorized transport and land use and unnecessary construction of infrastructure like sewerage/water lines, roads, and electricity cables.

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vii. Major portion of land should be planned as green belt as per prevalent bye laws. This should include tree and water bodies' preservation, natural topography conservation and tree plantation, restoring and reuse of contaminated sites, farming of different crops, fruits, vegetables etc. for internal use.

viii. Encourage the use of public transportation with better road planning to reduce fossil fuel consumption , use of alternate fuel vehicles such as CNG, biofuels, electric vehicles, solar vehicles with charging station, bicycles. In fact fossil fuel vehicles should not be allowed in campus and parked at entry gate to the extent possible.

ix. The layout plan should be such that each point should be reached from any other by walking to the extent possible. This would also require shading for footpaths and pathways through tree cover and proper streetlight designing for optimum lux level in the night.

x. Optimize parking with underground parking systems preferably near gate should be considered and the cycle path should be given preference to the extent possible.

xi. Water conservation through rain water harvesting, use of efficient water fixtures, waste water recycling should be an integral part of the building designs and layout.

xii. Energy efficient measures including energy efficient street lighting system with proper control, low energy fixtures, energy efficient pumping system, energy efficient motors and other equipment should be taken.

xiii. Use of renewable energy system such as solar water heater, solar rooftop, solar dryers, solar cookers, solar lantern, solar traffic signals, and battery operated vehicle, solar air conditioning etc. should be made to the extent possible. Solar cooking systems and solar water heaters must be utilized for hostels/hospitals etc. The maximum houses, hostels, kitchen must have solar water heaters (including multi-storied buildings) in the campus. The kitchen waste generated within the campus should be treated with biogas generation technology and the generated biogas may be utilized for cooking or electricity generation purpose.

xiv. The common lights, interior, exterior or street lights should be preferably through Renewable Energy Technologies particularly solar.

xv. Use of solar passive architecture for buildings with minimum air-conditioned load and optimum ventilations with efficient HVAC systems should be ensured.

xvi. Waste management with an aim to zero waste institutions should be carried out e.g. all waste in the campus (hostels, kitchens, households and markets etc.) should be treated for useful applications within the campus itself through waste to energy technologies. This biogas can be used for hostels, kitchen or for powering water system.

xvii. The ecofriendly and recycled material and certified green building materials should be used for construction purpose.

xviii. An awareness/training workshop should be organized in the campus regarding renewable energy applications, and taking suitable measures for energy conservation and energy efficiency.

xix. Any other innovative actions/ points to be taken for making existing green campus.

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