

## Evidence for UI GreenMetric Questionnaire

University : Universitas Sebelas Maret  
Country : Indonesia  
Web Address : <https://uns.ac.id/> web greencampus UNS <http://greencampus.uns.ac.id/>

### [2] Energy and Climate Change (EC)

#### [2.3] Renewable energy produce inside campus

Solar Panel (Universitas Sebelas Maret, Indonesia)



Figure 01. Solar Panel System has been used in Drinking Water Treatment System (SPAM) facilitated by the Ministry of Public Work and Spatial Planning of Indonesia



Figure 02. Solar Panel System has also been using in UNS Library Building



Figure 03. Street Lighting in UNS Hospital Building utilizes Solar Panel System



Figure 04. Solar Panel System also uses in the front-yard of Research center and Community Services Building (LPPM) UNS Surakarta.

#### Biofuel di Fakultas Teknik



Figure 05. Biofuel Laboratory of Engineering Faculty has been continuously developing research on Development of energy alternative.



**BikeUNS**



Figure 06. Research innovation in Engineering Faculty has been creating Electrical-bike (BikeUNS) , which can be ride in internal campus

### National Electric Car



Figure 07. Innovation in Renewable Energy has been expressed in development of MOLINA (National Electric Car) funded through research grant from the Ministry of Research and Technology

Figure 08. UNS has developed natural textile coloring made from natural resources called UNS-Ecody, which is usually used for coloring Batik- a Traditional Cultural Heritage Fashion textile from Surakarta Indonesia.

**Description:**

Some university efforts in developing renewable energy and energy alternative have been initiated. These applied in several activities : 1) the Usage of Energy Solar Panel System (PLTS = Pembangkit Listrik Tenaga Surya) for Street Lighting in exterior and campus landscape area; 2) Solar Energy for Drinking Water Treatment System (SPAM) facilitated by the Ministry of Public Work and Spatial Planning of Indonesia, which is served for fresh drinking water for all civiats acedemica; 3) The use of green-fiendly transportation system in campus of Eco-Bike (electric bike) for internal transportation for UNS manager from one building to otherplaces; 4) Mechanicl Engineering Faculty of Engineering has developing National electric car (MOLINA= Mobil Listrik National) through research grant funded by Ministry of Research and Technology Indonesia; 5) To support MOLINA, Mechanical Engineering has been developing Lithium Bateries. This needs support and marketting by the central government and other parties; 6). In textile industry, Industrial Engineering , Faculty of Engineering has been developing UNS Ecody Natural Coloring Textile using botanical natural resources