

## Template for Evidence(s) UI GreenMetric Questionnaire

University : Gebze Technical University  
Country : Türkiye  
Web Address : www.gtu.edu.tr

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

#### [2.10] Greenhouse gas emission reduction program



Use of the electric vehicle



Bicycle Home



4



Use of bicycle

4



Bicycles repair

5



Electric vehicle charging station



6



Shared journey

7



Use of underground water resources

8



Use of service vehicles

Greenhouse gas emission reduction program (Gebze Technical University, Türkiye)

## Description:

In order to build a sustainable campus, Gebze Technical University is taking various steps to reduce greenhouse gases on campus. With the steps taken in this context, based on the table of Woo & Choi (2013), Scope 1 and 3 type emissions are reduced through the activities listed below. These include the use of electric vehicles for campus transportation, the use of bicycles, shared travel, the use of underground water resources, and the creation of charging stations for electric vehicle owners.

- 1) GTU aims to reduce greenhouse gas emissions by reducing the use of vehicles on campus. In this direction, electric vehicles will be used as public transport within the campus. Examples of these vehicles are shown in Figures 1 and 2. In addition, the frequency of the use of greenhouse gas-emitting vehicles owned by institutions and individuals for campus transport will be reduced. This scenario falls under Scope 1 in the Woo and Choi (2013) study.
- 2) Similar to the use of electric vehicles, the use of bicycles is another step to reduce greenhouse gas emissions by reducing car mobility in campus transport. In this context, as shown in Figure 3, a bicycle house has been installed by GTU. Figure 4 shows a sample photo of some of the bicycles in use. In addition, bicycles are repaired on campus in order to make the use of bicycles sustainable and to ensure that the bicycles are used for a longer period of time. An example of this situation is shown in Figure 4. This scenario falls under Scope 1 in the Woo and Choi (2013) study.
- 3) To encourage the use of electric vehicles by staff and students on campus, charging stations have been installed to allow them to charge their electric vehicles. This allows them to use their electric vehicles more conveniently. This will reduce the number of greenhouse gas-emitting vehicles on campus. Effective use of these groundwater resources therefore reduces the amount of water that GTU counts from outside. This scenario falls under Scope 1 in the Woo and Choi (2013) study.
- 4) Students and staff use shared journeys to reduce the number of vehicles on the bus. They do this in two ways. One is by hitchhiking and the other is by using Martı-tag, a Turkish application. The Martı-tag application is free, and users can choose where they want to go, and those on a similar route can travel together. This reduces the number of greenhouse gas-emitting vehicles on campus. This scenario falls under Scope 3 in the Woo and Choi (2013) study.
- 5) There are 8 water wells in different parts of the GTÜ campus. An example of these wells is shown in Figure 7. Thanks to the water wells, groundwater is used effectively. This is a step towards reducing the water footprint. In this way, groundwater is used efficiently and effectively for irrigation. This scenario falls under Scope 3 in the Woo and Choi (2013) study.
- 6) Thanks to the shuttle service it provides for GTU staff, it takes its staff from their homes to the institution via a route it creates from various points in Kocaeli, the city where it is located. This service is completely free for employees. With this shared ride service, each employee is encouraged to use public transport instead of their own car. In this way, vehicle mobility within the campus is reduced. Figure 8 shows an example of these services. This scenario falls under Scope 3 in the Woo and Choi (2013) study.