Solar traffic light

Solar traffic lights *are signalling devices powered by solar panels positioned at road intersections, pedestrian crossings and other locations to control the flows of traffic. They assign the right of way to road users by the use of lights in standard colors (red - amber/yellow - green), using a universal color code.*

Solar-energy-powered traffic light

Features

As an auxiliary system

During natural disasters

Portable, solar-powered, traffic light used when construction workers must narrow a 2-way street to a single lane and must emplace traffic controls for safety.

Solar traffic lights can also be used during periods following natural disasters, when the existing street lights may not function due to power outages and the traffic is uncontrollable. Street lights used in such scenarios are designed to be portable enough

Advantages

- Solar traffic lights are self-sufficient as they do not require external power sources.[9]
- They are easy to set up and operate.[9]
- They require very little to no maintenance as they have no moving parts.[9]

Disadvantage

- Risk of theft is higher as equipment costs are comparatively higher.
- Snow or dust, combined with moisture can accumulate on horizontal PV-panels and reduce or even stop energy production.
- Rechargeable batteries will need to be replaced several times over the lifetime of the fixtures adding to the total lifetime cost of the light. The charge and discharge cycles of the battery are important considering the overall cost of the project.

References