

The Prototype of the Solar Energy Utilization for the Finding Sustainable Conditions in the Future: The Solar Community with 4000 Dwellers 960 Families, equal to 480 Solar Dwelling Houses and 32 Mansion Buildings (480 Dwellers)

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Abstract : This technical paper is for the prototype of solar energy utilization for finding sustainable conditions. This model has been simulated under the climate conditions in Japan. At the beginning of the study, the solar model house was built up on site. And the concerned data was collected in this model house for several years. On the basis of these collected data, the concept on the solar community was built up. For the finding sustainable conditions, the amount of the solar energy generation and its reduction of carbon dioxide and the reduction of carbon dioxide by the green planting and the amount of carbon dioxide according to the normal daily life in the solar community and the amount of the necessary water for the daily life in the solar community and the amount of the water supply by the rainfall on-site were calculated. These all values were taken into consideration. The relations between each calculated result are shown in the expression of inequality. This solar community and its consideration for finding sustainable conditions can be one prototype to do the feasibility study for our life in the future

Keywords : carbon dioxide, green planting, smart city, solar community, sustainable condition, water activity

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