

2<sup>nd</sup> World Congress on **Wind and Renewable Energy**  
&  
5<sup>th</sup> World Congress and Expo on **Green Energy**

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**Assessment of passive and active solar and other alternative energy systems****Odysseas Manoliadis**

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An interview investigation was conducted for the assessment of passive and active solar and other alternative energy systems use after 30 years of the construction of Solar Village II in Greece. The data were collected from 45 families living in the Solar Village-3 (SV-3) during 1991. This settlement, which is located in Lykovrisi, 18 km north of the center of Athens, occupies a total area of 90,440 m<sup>2</sup> and consists of 25 buildings comprising 435 residential units, 12 shops, a cafeteria, a library, and a social center. All buildings are individual blocks of flats with two, three, four or five storeys. Different passive and active solar and other alternative energy systems for space heating and domestic hot water services have been installed in the village buildings. The most important climatic data were considered in the design. This study is focused on occupational and energy behaviour patterns which generate indoor heat gains in Greek residences. The heat gains or heat losses of a dwelling are determined by its technical and architectural characteristics on one hand and by the behaviour of the residents on the other. The presence of occupants at home and behaviours such as household work, in-home entertainment, hobbies, sleeping, resting, and eating generate heat gains in a residence. The study results in terms of heater lighting use of hot water appliances are derived. loads in residence buildings and for the simulation of occupants Data and results of this research can be used for the behaviour in building energy.

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