World-wide there are hundreds of environmental assessment methodologies, certification programs and building evaluation tools that focus on different areas of sustainable development and are designed for different types of projects.

The main approach on this study is to examine the existing assessment methodologies by the energy tabs. Meanwhile the approach explains the design guidelines for experts. This study is carried out on the world’s leading assessment methods and certification programs such as BREEAM, LEED, Green Star, GBTool and Green Globes and etc.

Each assessment methods/certification programs which is main research area has own tabs and criterias. The study will explore the needs on site and compare the strengths and weaknesses of the models at energy segments. The paper discusses how clean and renewable energy usage affects the ratio of certification and how the decision-makers can use the technical innovations on their own projects. In this paper, the comparison of energy performances, on-site renewable energy, direct/converted use of renewable energy, equipments for improving energy efficiency will offer design tips to the architects and engineers.

On the result this study first aims to offer information and data to compare and contrast sustainable building rating systems in response to energy tab. Secondly, it aims to offer potentially useful techniques for green building design depending on the needs of the user.

Keywords: Assessment Methods, Certification Programs, Green Building, PV Energy.

In our country in recent years, the significant changes on behalf of the user were made on the laws and regulations concerning renewable energy applications. Meanwhile, in numerous businesses and investors have been especially the idea of producing electricity by means of the photovoltaic panels or modules. Unfortunately, very few of these ideas have been implemented. One of the reasons is the speculative information circulating at the relevant market in the system configuration and system output. Such the speculative information is often caused to doubt about making the attempt of the potential entrepreneurs. In this study, which aims to make the minimum such doubts, has been simulated the annual output of 1 MW photovoltaic power plant. The simulations performed for Sanliurfa region were realized with desktop-based version of the PVDizayn software.

Keywords: Photovoltaic, Power plant, PVDizayn.