In this paper, thermodynamic analysis of an integrated system with parabolic collector which produces a number of outputs, such as heating, cooling, hot water and electricity is investigated. This integrated system consists of four main sub-systems; concentrating collector, energy storage, Rankine cycle and double-effect absorption cooling and heating. The renewable energy based system is operated in two modes, which are solar mode and storage mode. Exergy destruction ratios and rates, power or heat transfer rates, energy and exergy efficiencies of the system components and whole system are carried out. From the results, energy and exergy efficiencies for solar mode are found as 51.32% and 46.75% whereas for storage mode these efficiencies are calculated as 47.44 % and 45.43%, respectively. Additionally, parametric studies, including the thermodynamic performance of the system and its components are conducted by the change in some design parameters, as variation of the ambient temperature changes from 0 to 30.