

عنوان مقاله:

Evaluate The Effect of Ground Source Heat pump Systems on Energy Savings and Reduced Environmental Pollutants

محل انتشار:

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خلاصه مقاله:

By the intensive development of industry, the intensity of the harmful gas emission has increased, which has resulted in global warming and climatic changes and fossil fuel cost, use of renewable energy has been welcomed. Ground source heat pump systems are one of the important technologies that use renewable energy for residential and industrial cooling and heating system. In this system under ground water, ground, lakes and rivers are used as a heat sink. In the winter the heat is taken from the ground and is transmitted to the building and in the summer it transmits the heat of the building to the ground without causing any pollution. Because of decrease in energy consumption and environmental pollution, it increasingly is favored all over the world. In this study the conventional cooling and heating systems and ground heat source heat pump systems are compared from the aspects of CO₂ & SO₂ emission and the energy efficiency. We came to this conclusion that by reducing 30-60 percent of electricity consumption and reducing 10-30 percent environmental pollution gases, it is both economical and friendly environment. And finally ways to .extend and increase the efficiency of this system is suggested

کلمات کلیدی:

Ground source heat pump, Pollutant Emissions, Environmental, Heat pump, Renewable energy

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