

The future role of biofuel as a energy carrier in construction sector

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Nowadays, one of the main concern of the governments is the depletion of natural resources. Since energy is one of the most important driving factor for many sectors, both its economical usage and finding new resources are crucial. Global warming due to environmental pollution is another important issue to be concerned. Therefore, sustainable resources have become more important and widespread of these resources are encouraged all over the world. Construction sector is undoubtedly is one of the most energy consuming sector. Manufacturing processes of many building materials need a large amount of energy and hence alternative energy resources may play important role for the future of construction sector. In this study; one of the most important sustainable energy resource, namely biofuel has been discussed in order to highlight its future role as a energy carrier in construction sector. In addition to the literature review and analyzing different reports, interviews were held with a variety of professionals working on energy sector. It has been concluded that usage of biofuel is very debatable in that it brings both advantages and drawbacks. Although it is promoted as a environmental-friendly and sustainable resource, some types of biofuel may harm the environment by releasing more CO₂. On the other hand, benefits of biofuel usage have been determined in some construction and geotechnical applications. It can be said, true types of biofuel can be a good alternative in the future for the construction sector as far as sustainability perspective and its advantages are concerned.

Key Words: Biofuel, Energy, Construction, Sustainability, Natural Resources

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