Universiti Malaysia PAHANG

Engineering • Technology • Creativity

BMM4021 ENGINEER AND SOCIETY

REDUCING CO2 EMISSIONS

PROJECT REPORT

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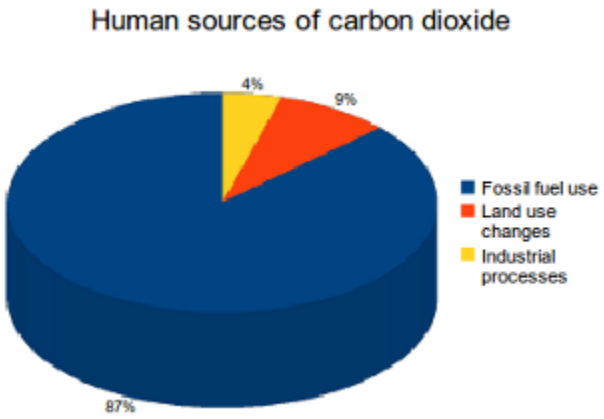

The three types of fossil fuels that are used most by humans are coal, natural gas and oil. Coals were reported to release as much as 43% of carbon dioxide emissions, another 36% were from oil and 20% from natural gases. Coal is one of the most carbon intensive fossil fuels. For every tonne of the burning of coals, it produces and releases approximately 2.5 tons of carbon dioxide. In the United States, coal accounts for approximately 50% of the electricity produced. Mined coal is delivered to coal-fired power plants, where electricity is generated. At the power plant, the coal is combusted to boil water and produce steam to operate a conventional steam turbine and generator, which produces electricity. The electricity is sent to users through a transmission system that consists of electric transmission lines, towers, substations and other components. For a complete listing of the impacts tied to energy production from coal, the impacts from mining and the construction and operation of power plants and transmission systems should be considered.

To save our planet we need to consider this problem and ways to overcome. We need to reduce the usage of coals or stop it and find a new source of energy because coal is the biggest source of energy in our world today. It is bad because it releases so much carbon dioxide and in the time, it will increase our atmosphere temperature and will cause climate change.

of production. For example, factories in the cement industry, have to heat up limestone to 1450°C to turn it into cement, which is done by burning fossil fuels to create the required heat.

WAY TO PREVENT CARBON DIOXIDE EMISSIONS

INDUSTRY

Rewarding Green Commutes

Encouraging employees to switch to public transportation, carpooling, biking, telecommuting and other innovative ways to save energy and reduce greenhouse gas emissions on the way to and from work can add up and have tremendous effects. Employers can offer commuter benefits that address limited or expensive parking, reduce traffic congestion, improve employee recruiting and retention and minimize the environmental impacts associated with drive-alone commuting.

Standing Up Against Coal, Tar Sands and Fossil Fuels

Coal is the only fossil fuel (aside from unconventional fossil fuels, such as oil shale, tar sands, and methane hydrates) plentiful enough to contribute the amount of CO2 necessary to trigger irreversible climate change. Businesses that make a conscious effort to switch from coal to more sustainable energy sources, such as wind or solar power, can help to reduce CO2 emissions greatly.

Investing in Renewables

If undertaking new energy-efficient building initiatives is out of the question, or an organization simply can't afford to put solar panels on buildings, there are alternatives. The mitigation of carbon footprints through the development of alternative projects, such as solar or wind energy or reforestation, represents one way of reducing a carbon footprint.

Carbon-Free and Reduced-Carbon Energy Sources

Another way to reduce carbon dioxide emissions is to use carbon-free or reduced-carbon sources of energy. Carbon-free sources of energy have their own associated impacts, but in general, these technologies generate energy without producing and emitting carbon dioxide to