

THE AS THE WAY TO ENERGY SAFETY OF THE ECONOMY OF THE UKRAINE

N. Kraminska, O. Teletov
Sumy State University, Sumy, Ukraine

The burning issue of the world economy for today is a lack of renewable energy supply.

The essential growing of the world prices, the decrease of the reserves, complicated problems of the transportation, ecological position give the push for searching for of the alternative sources fuel. The fuel possible to get not only from oil. The last scientific investigations confirm that main spares to oils on the Earth will finish in 50 years.

The decision of this problem is a development production renewable sources to energy, i.e. receiving the biofuel as the result of the processing of biological materials (a vegetal matter or an animal extraction).

The Cabinet Minister of Ukraine has confirmed "Program of the development production diesel biofuel" resolution #1774 from December 22, 2006. The purpose of the program consists in increasing level ecological and energy safety of the Ukraine, reduction to dependencies of the national economy from import oil products, ensuring the agrarian sector and transport branch diesel biofuel (biodiesel).

Biodiesel, what have proven the investigations, at hit in water do not bring the harm to plants and animal. Aside from this, he subjects to practically full disintegration: in ground or in water microorganisms 99% biodiesel process for 28 days; this proves minimality soiling the rivers and lake.

Biodiesel on 75% is more pure common diesel oil. In product of combustion biodiesel on 8-10% oxide of carbon less, nearly on 50% smut less and far less sulphurs.

The technical features allow biodiesel certain to compete with traditional diesel oils. Turning on biodiesel not it is necessary in addition to equip neither engine itself, nor its systems.

Europe - is leading producer biodiesel due to assisting total legal and political condition. The main producers of the Europe - Germany (1 669 000 tone per annum), France (492 000. tone), Italy (396 000 tone). Germany wields the most production power in Europe, 48% volume European production. The expenses beside 0,88€ form on fabrication for the liter (including factor of the adjustment to low energy value) without indirect tax. This is an equivalent market price on natural diesel. Political, legislative, tax support and public position are a warranty to competitiveness biodiesel in Europe.

Especial attention deserves the invention a scientist - an engineer from Kramatorsk - cavitation reactor. Allows to reach the intensification of some chemical process that is to say conducts one chemical reactions without catalyst, other - with minimum amount reagent, other - with speedup in a hundreds once. In this instance, cavitation allows to conduct the reaction an etherification (the reception methyl alcohol that is named biofuel) by leaps and bounds. The essential advantage is that can be used raw material any quality (not only colza, but and sunflower, corn, soya, hemp, palm and others, aside from this and vegetable fat).

Intrinsically consumption of the colza in Ukraine forms whole 20%, but for want of export duty, Ukrainian processing of biodiesel unable to compete with exporter on the prices (the much of cultivated colza on territory of the Ukraine goes on export, basically in Germany). The construction plants on production biodiesel greatly has consolidated demand for colza and has reduced by sowing area of the sunflower, which on today exceed scientifically motivated rates.

Thereby, development and construction complex on conversion biological cheese on biodiesel is perspective. This currently in condition of the entering the Ukraine in WOT and significant increasing of the prices on fuel. Computed on by us payments confirm recoument one such complex on length is 3-4 years. According to Program Ukraine plans before 2010 year build not less 20 plants on production biodiesel