FOURTEENTH CONGRESS OF THE REPUBLIC)
OF THE PHILIPPINES)
First Regular Session)

SENATE
P.S.R. No. 68

Introduced by Senator Miriam Defensor Santiago

RESOLUTION
DIRECTING THE PROPER SENATE COMMITTEE TO CONDUCT AN INQUIRY, IN AID OF LEGISLATION, ON THE DEVELOPMENT OF HYDROGEN ENERGY TECHNOLOGIES CONSISTENT WITH ENVIRONMENTAL PROTECTION, SUSTAINABLE DEVELOPMENT, AND ECONOMIC PROSPERITY

WHEREAS, it is the policy of the State to reduce dependence on imported fuels with due regard to the protection of public health, the environment, and natural ecosystems consistent with the country's sustainable economic growth;

WHEREAS, since the dawn of the industrial revolution, fossil fuels have powered the technology and transportation networks of countries all over the world;

WHEREAS, there are three major problems created by a fossil-fueled economy: air pollution, global warming, and dependence on foreign oil;

WHEREAS, in the process of burning gasoline, car engines produce polluting gases such as carbon monoxide, nitrogen oxides, and unburned hydrocarbons;

WHEREAS, each gallon of gasoline burned by a car engine produces five pounds of carbon dioxide into the atmosphere; the carbon dioxide coming out of every car's tailpipe is a greenhouse gas that is slowly raising the temperature of the planet; global warming may cause the ice caps to melt, significantly raising sea levels and flooding and destroying coastal cities;

WHEREAS, the Philippines depend on oil-rich countries for its oil supply; when oil producing countries decide to raise the price of oil, it has no choice but to pay the higher price;

WHEREAS, hydrogen is one alternative source of energy that promises to reduce the country's dependence on foreign oil; using hydrogen to create a hydrogen economy – a future energy system based on hydrogen and electricity – only requires technology;

WHEREAS, hydrogen energy, when produced from non-fossil resources such as water, has none of the detrimental environmental effects of fossil fuels;

WHEREAS, replacing fossil fuels with hydrogen energy will not happen overnight; extensive research and development is needed before alternative sources can supply hydrogen energy in quantities and at costs competitive with fossil fuels;

WHEREAS, at present, most of the world's hydrogen is produced from natural gas by a process called "steam methane reforming"; steam methane reforming does not reduce the use of fossil fuels but rather shifts them from end use to an earlier production step; steam reforming still releases carbon to the environment in the form of CO_2;

WHEREAS, even when using the cheapest production method – steam reforming of methane – hydrogen is still four times the cost of gasoline for the equivalent amount of energy;

WHEREAS, to achieve the benefits of the hydrogen economy, hydrogen must be produced from non-fossil resources, such as water, using a renewable energy source; the challenge is to find inexpensive and efficient routes to create hydrogen in sufficient quantities from non-fossil natural resources;

WHEREAS, the hydrogen economy has enormous societal and technical appeals as a potential solution to the fundamental energy concerns of adequate supply and minimal environmental impact;

WHEREAS, government plays a key role in the move from fossil-fuel to hydrogen technology; early government investments in establishing goals, providing research support, and sharing risk are necessary to prime the emergence of a vibrant, market-driven hydrogen economy;

WHEREFORE, be it resolved, as it is hereby resolved by the Philippine Senate, to direct the proper Senate committee to conduct an inquiry, in aid of legislation, on the development of hydrogen energy technologies consistent with environmental protection, sustainable development, and economic prosperity.

Adopted,

MIRIAM DEFENSOR SANTIAGO

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