

This message is being sent by the US Association for the Study of Peak Oil & Gas (ASPO-USA),
for use in the Australian Parliament inquiry into peak oil.

Any discussion of this serious subject should begin with a reminder that peak oil refers to the
end of growth in the availability of oil supplies. It does not refer to the end of oil
production.

Oil availability on a daily, monthly or yearly basis has been growing for over 100
years, almost continuously
throughout the history of the industrial age. When this growth ends, capitalistic
growth economies everywhere
in the world will face an unprecedented challenge which almost no country is
presently prepared to manage.

The USA and Australia are alike in that they are both modern, industrialized western
countries.

Both are relatively new countries as compared to most of the rest of the world,
and have growing populations spread out across vast land areas.

Unfortunately, these very characteristics which have allowed both nations to prosper
in the past
century also make them among the countries most likely to be adversely impacted by
the inevitable
peaking of global oil and gas production.

ASPO-USA and ASPO-Australia are sister organizations in the expanding family of
international ASPO chapters,

which also has active groups in many European countries.

They represent the growing concern of informed people throughout the world who
recognize that we
approaching a major turning point in our modern way of life.

Many Americans are questioning the sustainability of a petroleum intensive economy
based on the
following unarguable facts:

- US domestic oil production peaked in 1970 and has continued to decline steadily since then, despite many advances in petroleum exploration and recovery technologies.
- The peak of world oil discovery occurred in 1963. Annual world discovery of new oil has trended down since then.
- Since the early 1980s, the world has consumed more oil each year than it has discovered. The extent by which use exceeds discovery is also growing.
- In 2004, the world used about 30 billion barrels of oil but only discovered about 6 billion new barrels.
- Roughly sixty countries produce the vast majority of the world's oil. Oil production in approximately forty of these countries has already peaked and is in decline. Production is increasing in only a handful of nations.

- With respect to natural gas, North America is past its production peak. By some estimates the nation will need to import seven shiploads of liquefied natural gas each day by 2020. Meanwhile, U.S. population continues to grow by about 30 million people each decade.

The likely effects of global peak oil and natural gas cannot be precisely forecast. However, it is reasonable to make the following assertions:

- Energy prices are likely to be volatile and trend up over time.
- The industrialized world was constructed with inexpensive oil and natural gas. Indeed, these fuels, in combination with ingenuity and technology, can be said to have invented prosperity. America, as the largest consumer of oil and natural gas, is particularly exposed to a world of more expensive fossil fuels.
- There are no ready substitutes for oil and natural gas in the amounts we consume today. It is highly unlikely that new energy supplies can be made available faster than oil declines after the global production peak.
- A declining, or even a constant total energy supply, will not support a continuously growing world economy, without rapid increases in energy efficiency.
- New information about Saudi Arabia raises questions about the kingdom's ability to sustain substantially higher rates of oil production for any significant period.
- Oil powers 96% of the world's transportation systems. More expensive oil will have the quickest, most direct and damaging effects on transportation systems. There is a high probability that transportation infrastructure can not be adapted quickly enough to seamlessly meet the challenges presented by peak oil.
- The timing of a global peak in natural gas production is more difficult to predict, but it is likely by 2025. Natural gas is the primary source of the agricultural fertilizers, which have enabled the world population to grow to 6.4 billion.
- In the absence of bold, inspired, intelligent leadership, oil and natural gas depletion will produce economic hardship and profound geopolitical tensions.
- Governments will be under significant stress and the potential for international conflict will be high.

The unprecedented problems which will accompany peak oil can only be mitigated by an early and massive public education effort in conjunction with intelligent planning and response by private and government organizations.

Because energy is only used by people, it is pointless to address energy issues without considering population. This requires evaluation of immigration policies as well as efforts to educate the public about the factors affecting the future quality of life available to their children and countrymen as it relates to population.

Because peak oil will mark the end of growth in liquid fuel supplies from conventional oil, it will present a severe challenge to most existing

transportation systems. These challenges must be anticipated and mitigated well in advance of their arrival. Measures such as the following would be prudent:

- Shift towards increased use of rail instead of trucks for long distance transport of goods.
- Allow more workers to telecommute.
- Encourage greater availability of small vehicles such as the 3 cylinder 2 person Smart Car. Too many people drive alone in large massive vehicles. It is wasteful to use a 4000 pound vehicle to transport a single 180 pound person, but it happens hundreds of thousands of times each day. Small cars and motorscooters are sufficient for many occasions when a single person needs to go somewhere.
- Alternate methods of liquid fuel production must be evaluated and developed if they show promise and represent a positive energy return on energy invested (do not use more energy than they provide).
- Transportation which is not dependent or only partially dependent on liquid fuels must be considered. Plug-in hybrids are an example of vehicles which are only partially dependent on liquid fuels. The electrical energy provided to a PIH can come from non-petroleum sources including nuclear and renewables.

The world must work for petroleum data reform. There is currently a poor system for accounting for petroleum production, discovery and reserves which is inconsistent among oil producing countries. Some countries do not share basic data or report figures which are clearly very inaccurate. The lack of reliable data complicates planning and analysis. It is similar to flying a jet at night in clouds without a reliable altimeter, eventually the pilot will make a bad mistake.

Governments should begin to develop contingency plans for peak oil, as they already do for natural disasters, terrorist attacks, etc. Because of the unreliable oil depletion data, it is uncertain when global peak oil will occur, but it is not uncertain whether it will occur. Public officials need to start asking their staffs the hard "what if?" questions that would inevitably arise if global peak oil occurred tomorrow.

These ideas and many others are available at the home of ASPO international:

<http://peakoil.net/>

and at site of ASPO Ireland maintained by ASPO's founder, petroleum geologist Dr Colin Campbell:

<http://www.peakoil.ie/>

The leadership of ASPO-USA wishes to commend the Australian Parliament for its efforts to inquire into the challenges presented by global peak oil.

We stand ready to work with ASPO-Australia in any way required.

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Executive Director

<http://www.aspo-usa.com/>