Does Sydney really need an oil products depot and distribution facility at Clyde?

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This is a comment on the Environmental Impact Statement, for the "Clyde Terminal Conversion Project", prepared for the Shell Company of Australia Ltd, November 2013. The "Principle Author" of the EIS, is Jessica Miller, the "Responsible Person" is Catherine Brady.

The EIS applies for the right of Shell, to undertake conversion works at the Clyde Terminal, located in the Parramatta LGA.

Prior to late 2012, the Clyde Terminal received crude oil, via a pipeline from the Oil Tanker unloading facility at Gore Bay, in Sydney Harbour. Since then, the EIS tells us, Clyde Terminal only receives stores and distributes petroleum products only. Shells major distribution terminal is adjacent, (the Parramatta Terminal), at Rosehill.

Large parts of the site for storage of crude oil and refining are now obsolete. Since refined products come directly through the pipeline, storage tanks for these need be situated closer to the pipeline exit. A "dosing" process is said to occur, before the finished products are distributed. Particularly convenient for Shell is its adjacent fuel products distribution facility.

There is no doubt from the EIS that the obsolete refinery infrastructure should be decommissioned, and that Shell has a right to propose that its operational infrastructure be made economically efficient to reflect its new liquid fuel handling practices.

Change in operations is just as important as infrastructure change

What Shell has not sought approval for, is the radical change to its liquid fuel handling practices. The transfer of refined products, instead of crude oil only, at the Gore Bay facility, from ships, and into the pipeline to Clyde, and from the pipeline exit point into each refined product tank, has been changed, without seeking anyone's approval. Shell has changed its business, and now seeks defacto approval, by asking permission to change infrastructure to support its new business, without having asked first whether it can it change its business. The change of materials handled at Gore Bay and put through the pipeline to Clyde introduced a change in environmental risks, for which Shell has not directly sought approval.

A unitary function broken into little pieces for site development approvals.

The entire system complex from the ship transfer facility, pipeline end at Gore Bay, the pipeline itself, and the change in procedures at Clyde, can be considered to be a single enclosed facility, providing storage, mixing and dosing, and storage, for final use as road tanker distribution facility. While EIS for projects are in general, related to a particular geography, in this case, the geography is wide-spread because of multiple connected sites of the one project operation. Single site facilities exist at Kurnell, for transfer from much larger ship tankers, which would not fit into the Gore Bay facility. With the closing down of refinery facilities at Kurnell, there will be plenty of space there for Shell. The infrastructure at Kurnell and Port Botany, with direct ocean accessibility, has been purpose built up to support large amounts of imports, from containers to liquid fuels trucking. They are also conveniently right next to Sydney Mascot Airport, for pipelining or trucking of Aviation Fuel. There is no need for aviation fuel precursors to be unloaded at Gore Bay, piped to Clyde, dosed, and then piped to Sydney Airport.

Aging Pipeline

The pipeline from Gore Bay to Clyde introduces an extra fuel connection handling step at each end, and the use of the pipeline for multiple fuel types brings into question the longevity and integrity of the 1962 pipeline, built prior to adoption of purpose design starts more than a decade later. Does its usage still meets the environmental and safety specifications of its original design and approval? Is the pipeline being regularly cleaned, checked, maintained and integrity verified? What is the pipelines working life, while being used for more volatile and corrosive fuel substances than the original crude oil?

Right in the middle of everything

The placement of the Gore Bay fuel transfers, in the midst of Sydney Harbour, and the nearness of Clyde refinery to the tidal reaches of Parramatta River and Estuaries, puts at risk a great variety of wildlife, and economic activities. The placement of the Clyde refinery in what is now almost the centre of the population of a greatly enlarged city of Sydney, puts a larger number of people at risk, from any fuel spillage, pipeline leak, or explosive disaster. The Gore Bay facilitiy is on a narrow peninsula, shared with residential usage. There is one access road.

The change in Sydney's population, new environmental standards and expectations, and the aging and changed use of pipeline infrastructure, and change in global energy futures, and climate change considerations, require a review of this Big Oil corporate facility, and all the others, and its role in the total mix of declining oil facitilities in Australia. Australia's future transport fuel needs, need to be reconsidered, as the likely means of fueling them is predictably changing.

Duplicate facilities built for each oil corporation

What isn't under consideration in this EIS, is how the petroleum industry is structured in Australia. The current unquestioned arrangements seem to be that each Big Oil Major demands and is allowed its own private ship loading infrastructure, pipelines, storage, dosing and distribution. This adds to the amount of total oil infrastructure requirements of Sydney, and prevents a better efficiency of scale, and reductions of multiple risks, and reduction of facilities that would need to be managed, if only one optimal set of Oil Products Tanker unloading, pipelines, storage, mixing or dosing, and distribution were considered. As the energy base for our economy, all costs and risks to liquid fuel supply are added to each part of our economy multiple times. As the big oil majors no longer refine in Australia, the need for their specialist services has greatly decreased, as the technology required for storage, mixing and distribution is an order of magnitude less, evidenced by the proposed shrinkage of the Clyde former refinery.

Shell is a declining oil corporation

For we are all living now in the decline of the age of big oil, which is leading to rapid declines in the amount of dependent economic activity that can be fueled and supplied by oil products. Dispite a growth in Australia's population, the number of person-km travelled in the big cities of Australia has been declining, for several years. This is from multi-factorial causation, including preferred social activities, employment distribution, and work-home commute patterns, but the rising cost of fuel has to be a factor.

I am a member of Parramatta Climate Action Network, [6] and as an individual with family, I am concerned about how our future ecological support systems, are now under immediate threat from accelarating global warming, and continued destruction of both natural ecosystems, and agricultural capacities in Australia, from mining and other activities associated with unbridled lust for economic growth from fossil fuel energy.

Economic growth has lost its appeal

I strongly object to the statement in the Executive Summary, of the EIS, volume 1, ix) that "The Project is critical to the Terminal and Shell's associated infrastructure *supporting the current and future growth of the New South Wales economy* in an efficient and effective manner. This is an artificial injection of a motherhood statement about economic growth, good for a ministerial dolt in parliament to boast about. Missing is the central fact that economic growth is killing mother nature. Shell is actually trying to beg that we really need their services. It so happens that global resource boom, as well as the Australian mining boom, has past its peak, and global economic decline is now the current path and long term prediction. [5]

Global oil and economic decline

The conventional oil supply of our world is in a permanent and irreversible decline. Consequently many global national economies have been in economic depression, because they are dependent on rising costs of fuel. Shell acknowledges the imminent decline of global oil supply. [1] In fact growth rates of global GDP is directly coupled to growth rates of global oil production, and oil supply and price is the limiting control factor. [3, 4] From a presentation by Robert Hirsch, a global recession and oil supply panic is due any time in the next 1 to 4 years.[1] Such a situation will require strict fuel rationing in Australia, and direct control by government over the storage, distribution and sale of fuel. In particular the price of most liquid fuels will rise, and be a considerable rising economic cost, or absolute supply limitation, to most sectors of the Australian economy. Michael Klare, a historian of contemporary resource politicals, notes that the rate of decline of the 10 biggest major conventional oil fields in 2007 was 6.7%. The longer term effective rate of decline is likely to be 9%, as production is currently being boosted by heroic measures. The combined output of the worlds 10 biggest oil fields has already fallen by 30%. [5]

Rationalisation, sharing and rationing of oil industry

In this imminent oil crash scenario before 2016, oil products consumption in Australia will most likely fall dramatically, and the quantity of fuel held in reserve storage facilities will be likely to drop, due to demand exceeding supply. In the long term reduction in all forms of oil dependent transport will take place by necessity. There is absolutely no evidence that current state and federal government planning is even allowed to take this into account, as plans for traffic expansions in Australia's cities include several mega tollway road expansions, with new concrete monstrosities and tunnels to funnel billions of tax-payer dollars into developers pockets. There is no evidence that Australia will be relatively spared in the global oil products market place, in keeping enough access to global oil for its normal economic activities, apart from the current ability of mining corporations to extract large fuel concessions and subsidies from Australian governments. It is likely that such intro-corporate deals between fossil fuel energy corporations, and rationing decisions by governments, will further restrict supply for private vehicle use. The Shell re-configuration at Clyde, is part of a long term reduction of its activities in Australia, and the long term reduction in the total liquid fuels market, as is the cessation of refining activities in Australia.

Carbon emissions causing global warming

What is worse, is that unconventional oil sources, will be much more expensive, in terms of price, and global carbon emissions per unit of product. The good news is likely to be that environmental destructive unconventional oil will be supply limited. A race is on to develop extreme deep sea resources in the Arctic uncovered by climate change, and other deep water locations. This may lead

to further oil extraction disasters, one of which is propping up of the global economy to continue carbon emissions. [5]

The weather systems of the world are about to undergo a major change, because of the loss of the cooling cap of ice in the Artic. This dynamic process will at first be for the peak summer melt in August-September, an event expected by 2015 or soon after. The overall Arctic warming changes weather patterns, and increases ice melt in Greenland. While sea level rise is still only 3 mm per year on average, this will increase, and no-one is sure of the threshold timing of carbon emissions and temperature rise at which the West Antarctic Ice Sheet collapse will substantially add to global sea level rise. At that time, the Kurnell refinery sites, Gore Bay, Clyde site, and Sydney Airport as well, will be swamped by tidal encroachments and storm surges of signficant sea level rise, perhaps by the end of this century. Sydney's harbour foreshores, transport, land use, and ways of life will by then have been transformed beyond recognition.

References

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[2] http://www.businessinsider.com.au/robert-hirsch-plateau-oil-peak-oil-2012-7#these-big-names-agree-that-oil-is-peaking-1

[3] http://www.businessinsider.com.au/robert-hirsch-plateau-oil-peak-oil-2012-7#economic-growth-and-oil-production-move-almost-in-lockstep-5

[4] http://www.businessinsider.com.au/robert-hirsch-plateau-oil-peak-oil-2012-7#but-hirsch-believes-oil-production-dictates-gdp--not-vice-versa-6

[5] The Race for Whats Left. http://www.amazon.com.au/The-Race-Whats-Left-Resources-ebook/dp/B0056DTS04/ref=sr_1_1?ie=UTF8&qid=1387718741&sr=8-1&keywords=Michael+Klare

[6] This document will appear in modified form on the parracan.org website. http://parracan.org/