

14 September 2021

Position statement

Closure of refinery will increase barrier to low emissions transport

The announcement that the Marsden refinery is to be closed will increase the barrier to easy achievement of low emissions transport, says the Bioenergy Association.

Brian Cox, Executive Officer of the Bioenergy Association said that “The Bioenergy Association is concerned that the refinery at Marsden Point is being decommissioned without serious consideration of how the remaining equipment not used for import of petroleum fuels, can be repurposed for production of biofuels. We understand that the facilities could easily be repurposed for the refining of biocrude to produce some renewable biofuels. We understand that at certain ratios some types of bio feedstock can be co-processed on existing hydrotreating units without equipment upgrade.”

“Government is about to introduce a mandate for use of biofuels in transport and there are several initiatives underway to have domestic production so that we are not always dependent on imported biofuels. Such a biorefinery could produce biofuels for heavy transport, marine (Interislander), rail and sustainable aviation fuel. Economies of scale will drive the market to have a very limited number of biorefineries.”

It is in the national interest that the refinery manufacturing equipment be repurposed for biofuels from the very start of the conversion process. Otherwise, domestic biofuels production will face a significant barrier if a new biorefinery will have to be built from scratch.”

“Use of the existing site will be very important if domestic biofuels are to be available sooner, with the consequential greenhouse gas emissions reduction. Obtaining resource consents to build new green-field biorefineries and further development of the production capability can be expected to take up to 10 years. This is a new market development problem where Government assistance will be required to get a new industry started.”

“It is-likely that biocrude production will be regionally spread depending on the feedstock resource with the biocrude being transported to a biorefinery. These challenges will be in any scenario with biofuel production and they shouldn’t prevent developing domestic biofuel.

“To maximise the future opportunities, and reduce potential cost barriers, and ensure that the required equipment at the refinery is maintained in a suitable form, the objective should be to provide incentives for Refining NZ to keep assets that may be used for refining of alternative fuels. This will require Government assistance which is no different than has been provided to: the NZ Battery Project; expansion of electric vehicles; development of a hydrogen market, and the Ministry of Primary Industries is doing to attract biocrude production investment to New Zealand. “

“Internationally the repurposing of petroleum refineries to be biofuel refineries has provided quick transition pathways. However because the biofuel markets are in their infancy the modernisation often requires the assistance of Governments. For example, the Australian Government have just decided to provide AU\$2.3 billion to keep the last two Australian refineries operational as they

transition to more strict EURO 6 emission standards. BP are also undertaking a feasibility study into the production of green hydrogen at the site of recently shuttered Kwinana refinery, roughly 30km south of Perth, to add to plans already underway to produce sustainable aviation fuel and “renewable diesel” at the facility.”

“The maximum value of the refinery for future biofuels production would be achieved if the Government assisted Refining NZ to keep the facility operational, at least for a period in which to develop a future plan for repurposing the assets.”

“The Stage 1 report of the Wood Fibre Future Project being undertaken by the MPI indicates that biocrude production using our forest resource is likely to be viable but will require refining capacity. It is the association’s concern that a barrier to attracting potential investors will be the lack of refining capacity. We understand that the existing refinery would provide a significant foundation for early production of biojet and renewable diesel.”

We understand that some of that equipment has already been decommissioned and is unusable. Currently, the incentive for Refining NZ is to mothball the as much equipment they can as it will be an on-going cost to them. If the facility can be kept operational this maximises the opportunities likely to emerge from the MPI project and other projects such as hydrogen being developed. It also allows a proper investigation of the repurposing options. Time is of the essence and decisions are necessary in terms of weeks and not months.”

“The knowledge and expertise of skilled workforce at Refining NZ will be very important in establishing alternative fuel supply. This expertise, if lost, would take years to rebuild so repurposing the refinery and including Refining NZ in undertaking an immediate investigation of options for going forward, will be very important.”

“There appears to be a strong rationale for establishing an entity that can work with Refining NZ on a sound plan moving forward which would act in the national interest with regard the ownership and maintenance of the available equipment for future use in a biorefinery. “

“Most importantly there needs to be a strategy and plan for developing capability for producing transport biofuels using New Zealand’s wealth of renewable natural resources.”

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Additional information

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