

IEA BIOENERGY T39 BIOFUEL NEWS

Issue 64
December 2023

Upcoming Events
Nordic Pellets Conference 2024
31 Jan - 01 Feb, 2024, Malmö, Sweden



In this issue
Biofuels production and development in New Zealand

IEA Bioenergy TCP Task 39

IEA Bioenergy is a Technology Collaboration Programme (TCP) set up in 1978 by the International Energy Agency (IEA) with the aim of improving cooperation and information exchange between countries that have national programmes in bioenergy research, development and deployment. Twenty five countries plus the European Commission currently participate in IEA Bioenergy.

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Swedish Bioenergy Association

While Tomas Ekbohm is Task Leader for IEA Bioenergy TCP Task 39, he also works for the Swedish Bioenergy Association (Svebio). Svebio is an environmental organisation for companies and individuals. We are strongly rooted in our values, and believe in renewable energy, entrepreneurship and a free market economy.

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Recommended reading

[Bioenergy International](#)

Online & E-magazine

[BC-SMART Low Carbon Fuels Consortium](#)

Newsletter

ISSN 2004-7002

HYDROGEN IS THE CHOSEN ONE, OR IS IT A HYPE?

Winter is upon us with early, heavy snow and very low temperatures certain weeks. This is our third and last biofuels magazine for 2023 featuring biofuel developments in New Zealand. We thank our colleagues at Scion Institute in New Zealand for their contribution.

Hydrogen is trending in the industry, not only for transport but also as a means for future production of fossil-free iron and steel and also chemicals. The shift requires new large-scale processes to be developed. Enormous amounts of money are invested in USA and the EU. President Biden announced in October 7 billion dollars in federal grants for the development of regional hydrogen hubs. President von der Leyen spoke at European Hydrogen Week in November of authorisation of over 17 billion euros in state aid for roughly 80 hydrogen projects. EU aims to produce 10 million tonnes of renewable hydrogen and import 10 million tonnes by 2030.

Hydrogen-use in vehicles is tied to the development of fuel cells and Daimler (with Mercedes Benz Group as part-owner) jointly owns a fuel cell company with Volvo Group for their trucks. Hydrogen is essentially a range extender as the vehicle is powered on electricity. As the time to market is an important factor there are also heavy-duty engines available with internal combustion engines (ICE), where hydrogen is mixed with air and a pilot fuel (biodiesel for example) and ignited in the combustion chamber, causing an explosion that drives the pistons. Not only Volvo believes it is essential to enter the market early but Scania as well which develops ICE for hydrogen.

However, will electricity and hydrogen be the promised energy carriers in ten years' time? Fuel cells are still expensive and hard to find. If we look back each decade has had its own favourite fuel, if we generalise a bit. Methanol in the 80s and ethanol and biodiesel (FAME) in the 90s. Bio-CNG entered in the 2000s and HVO in 2010s with the current electricity as favourite in 2020s among some politicians and vehicle manufacturers.

With the Diesel-gate ICEs got a bad taste and with evil campaigns on biofuels some countries have adopted regulations to stop ICE. There is, though, a caveat where electro-fuels have been accepted in future ICEs. These synthetic fuels are made from electricity where hydrogen is synthesised with carbon dioxide into hydrocarbons, i.e. petrol and diesel.

Cost is a major factor and battery-cars are still expensive and the cost curve for ever cheaper batteries was broken in 2022, when the price went up. New battery car models are usually in the premium segment and can weigh more than three metric tonnes. This not only drains resources and the power sector but also demands that the manufacturing be based on renewable electricity and not fossil fuels.

Biofuels are available now for both land, sea and air and compatible with today's engines, even advanced engines. These fuels can have a climate reduction efficiency of more than 90 percent and displaces fossil fuels, now. What is more to know? Keep it simple, if the solution gives same results and is cheaper.

We wish you a Merry Christmas and a Happy New 2024!

Tomas Ekbohm

Task Leader IEA Bioenergy TCP T39

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TASK 39 INFORMATION

During the current triennium, the IEA TCP Bioenergy Task 39 has had seven Business meetings (two physical) with monitoring ongoing projects and discussion of inter-task cooperation and new projects. In addition a special Project Meeting has been held. Material is available on our website here with projects, reports, publications, and the calendar with events.

Recent activity include a joint IEA TCP meeting held with Task 39 and AMF in Leipzig, Germany, with kind support of DBFZ as host. A workshop Ten Times more Renewables were held and apart from the Task 39 Business meeting and the AMF ExCo meeting joint discussions were held of common interest and possible cooperation and projects. In addition, IEA IETS were also present as guest. There are important considerations for both groups in internal combustion engines and biofuels in the matter of adopting political measures for future sales where combustion engines are restricted or not allowed.

Recent publications include Implementation Agendas: Compare-and-Contrast Transport Biofuels Policies (Saddler et al., 2023), Biofuels in Emerging Markets (Souza et al., 2023) and

Biofuel technologies: Lessons learned and pathways to decarbonisation (Cantarella et al., 2023). These are available at the IEA Bioenergy website.

Task 39 continues to actively organize and participate in other webinars and conferences with the goal of sharing the networks insights on how decarbonization of the transport sector can contribute to a “green economic recovery”.

As of 2023 fifteen countries participates in Task 39: Austria, Belgium, Brazil, Canada, China, Denmark, European Commission, Germany, Ireland, Japan, The Netherlands, New Zealand, South Korea, Sweden, and the USA. In addition, US Grains Council participates as a Limited Sponsor. Task 39 welcomes interest from other countries to participate in the Task group.

With the collaboration among these countries, Task 39 is set to deliver cooperative research projects to address and assess policy, markets, and sustainable biofuel implementation issues. T39 welcomes international contact from industry and academia to work on common ground for further use and commercialization of biofuels to replace fossil fuels.

PROGRAMME OF WORK

The mission of Task 39 is to facilitate and advance development and deployment of sustainable, lower carbon intensity biofuels to decarbonize the transport sector. Our method is to assist member countries transport biofuels stakeholders in their efforts to develop and deploy sustainable, lower carbon intensive biofuels through a coordinated focus on technology, commercialization, sustainability, policy, markets, and implementation.

The task leads and coordinates activities in three main program areas:

Technology and Commercialization (T-projects)

Technical/commercial aspects of producing and using low carbon intensity (CI) liquid and gaseous biofuels for transport, including both “conventional” and “advanced” biofuels.

Sustainability (P-projects)

Sustainability and carbon intensity metrics are playing an ever-increasing role in the policies used to develop and use biofuels. Biofuels sustainability/LCA assessment will stay a priority for the Task.

Policy (P-projects)

Policy analysis, the “right” policies (such as LCFs) significantly influence the rate and extent of development, deployment, and use of biofuels (e.g., bioethanol, biodiesel, renewable diesel, drop-in biofuels, etc).

List of ongoing and proposed projects



T39-T2

Ongoing progress in the commercialization of SAF/biojet fuel

T39-T3

Progress in the commercialization of drop-in biofuels and co-processing to produce low-CI transport fuels

T39-T4

“Extend assessment of decarbonisation of the marine transport sector and evaluate the commercial production and use of biofuels”

T39-T5

“Phase 2- Successes and Lessons Learned for Advanced Biofuel Technologies Commercialization (possibly InterTask with Tasks 40 and 45)”

T39-T6

Inter-Task project ‘Synergies of green hydrogen and bio-based value chains deployment’

T39-P1

Implementation Agendas compare-and-contrast report of each member country’s biofuels policies that have been/are being used to develop, deploy and expand biofuels production and use

T39-P2

“Assessment of the sustainability of biofuels pathways, including social and environmental aspects of sustainability, the specific CI impact of “new/advanced” feedstocks, and also further compare and harmonize leading LCA models to support biofuels categorization and regulation (possibly InterTask with Tasks 45)”

T39-P3

Improvement opportunities for policies and certification schemes promoting sustainable biofuels with low GHG emissions. Part 2: Robustness of GHG emission certification and verification –a case study of selected biofuel value chains and policies

T39-P4

Biofuel’s production and use status in “emerging” economies.

TASK 39 MEMBERS

Starting from 2023 Task 39 will have 15 member countries participating as listed per below. Each country is represented by a National Team Leader (NTL) and additional representatives as well as an ExCo member. Furthermore, external experts may be involved as well. In addition, US Grains Council participates as a Limited Sponsor making the total number of members to 16.



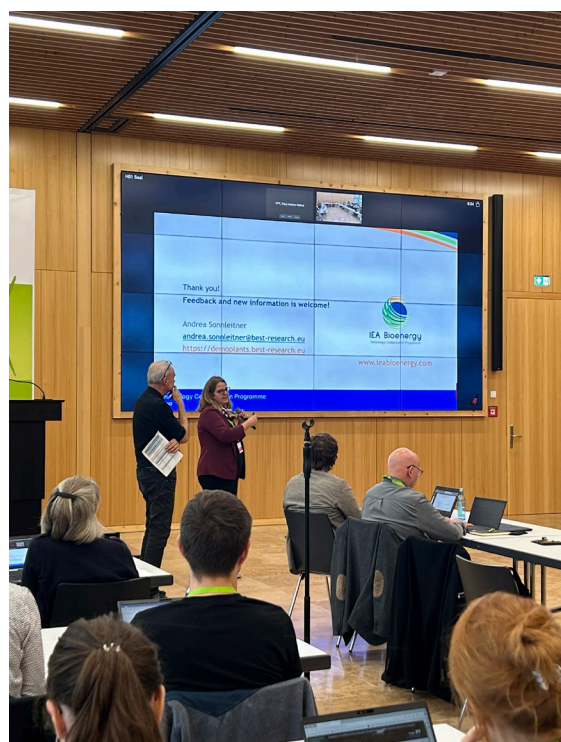
Task 39 meeting in Leipzig, Germany 23-27 October, 2023.

Current IEA Bioenergy Task 39 members (from 2023)

Member Country	Task Representative	Organisation	ExCo Member
Austria	Andrea Sonleitner (NTL) Dina Bacovsky	BEST BEST	Hannes Bauer
Belgium	Robert Malina	Hasselt University	Thibaut Masy
Brazil	Glauca Mendes Souza (NTL) Rubens Maciel Filho Luiz A Horta Nogueira	BIOEN FAPESP BIOEN FAPESP BIOEN FAPESP	Marlon Arraes
Canada	Jack Saddler (NTL) Hana Mohamadi Allison Simmons	UBC UBC NRC	Oshada Mendis
China	Fuli Li (NTL)	QIBEBT	Dou Kejun
Denmark	Sune Tjalfe Thomsen (NTL)	UCPH	Katharina Paarup Meyer
European Commission	Nicolae Scarlat (NTL) Marco Buffi	EC EC	Maria Georgidaou
Germany	Franziska Mueller-Langer (NTL) Nicolaus Dahmen	DBFZ KIT	Birger Kerckow
Ireland	Tom Walsh (NTL)	Renetech	Luiz Gay-Tarazona
Japan	Yuta Shibahara (NTL)	NEDO	Takahisa Yano
New Zealand	Paul Bennett (NTL)	Scion	Paul Bennett
South Korea	Chang Hyu Ko (NTL)	CNU	Jin-Suk Lee
Sweden	Tomas Ekbohm (NTL) Hannah Edgren	Svebio Svebio	Anna Malmström
The Netherlands	Paul Sinnige (NTL) José Muisers Stephan Janbroers	RVO RVO TNO	Kees Kwant
United States	Ling Tao (NTL)	NREL	Jim Spaeth

Current IEA Bioenergy Task 39 Limited sponsor(s)

Organisation	Task Representative	Alternative
U.S Grains Council	Isabelle Ausdal	Mackenzie Boubin



Task 39 meeting in Leipzig, Germany 23-27 October, 2023.

BIOETHEROS - COLLABORATIVE ACTIONS TO BRING NOVEL BIOFUELS THERMOCHEMICAL ROUTES INTO INDUSTRIAL SCALE

The EU-funded BioTheRos project (upcoming website: biotheros.eu) has officially started in October 2023 and aims to accelerate the scale up of thermochemical routes for maritime and aviation biofuel production.

To achieve EU climate and renewable energy targets, urgent action is needed to boost renewable energy sources in aviation and shipping. Sustainable biofuels, especially from lignocellulosic biomass, are viewed as crucial for decarbonization and can be easily integrated into existing infrastructure. However, today most sustainable biofuels come from limited waste feedstocks. Thus, scaling up lignocellulosic biomass conversion technologies for the production of advanced biofuels is essential, and best practices are necessary to overcome technical and non-technical obstacles and promote sustainable biofuel adoption worldwide.

”For the scaling up and commercialization of biofuels, international cooperation is of large importance as several projects and initiatives already exist on global level. ”

BioTheRos Project aims for international collaboration with IEA Bioenergy networks

Through the use of thermochemical conversion technologies, the BioTheRos Project aims to develop a comprehensive approach that will accelerate the production of sustainable biofuels. The project will bring together important players on

a European and global scale, including technological and social specialists, associations focused on renewable energy, and industrial stakeholders. For the scaling up and commercialization of biofuels, international cooperation is of large importance as several projects and initiatives already exist on global level. Thus, BioTheRos will establish close collaboration links with ETIP Bioenergy and Technology Collaboration Programmes (TCPs) within the International Energy Agency (IEA), like the IEA Bioenergy Task 39.

The assessment of current pre-treatment technologies and the availability of biomass feedstocks is the first step of the BioTheRos concept. Using predictive AI models for biomass demand, potential globally abundant biomass feedstocks suited for sustainable pyrolysis and gasification biofuel value chains will be selected. Pilot experimental validation of pyrolysis and gasification value chains will be implemented. In addition, a life cycle sustainability framework will be developed in order to evaluate the investigated biofuel production pathways using multi-criteria analysis techniques. Furthermore, market dynamics will be evaluated by calculating the energy demand for renewable fuels in 2030, determining the applicability and costs of renewable fuels for each transport sector, performing a high-level analysis of the availability of renewable fuels, and developing a set of fuel mixtures for the three transport sectors (marine, road, and aviation), taking into account demand for renewable energy outside the transport sector.

Acknowledgments: The BioTheRos Project has received funding from the European Union’s Horizon Europe research and innovation programme under Grant Agreement No. 101122212.



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Brazilian Bioenergy Science
and Technology Conference



IEA
Bioenergy
Technology Collaboration
Programme

BBEST & IEA Bioenergy Conference

2024

Bioenergy and bioproducts:

Accelerating the transition
towards sustainability

October 22nd to 24th, 2024

Hotel Renaissance - São Paulo/SP

– Brazil

**SAVE
THE
DATE**

More information: bbest-ieabioenergy.org

BIOFUELS PRODUCTION AND DEVELOPMENT IN **NEW ZEALAND**



By Paul Bennett, Scion

HIGHLIGHTS

- There is growing interest in biofuels to decarbonize aviation and maritime transport in New Zealand.
- The most likely road to expand biofuel production in New Zealand is to use non-food feedstocks, particularly planted forestry on non-arable land, to produce SAF and marine biofuels
- There is enough land available particularly with short rotation forestry regimes
- In 2022 NZ imported SAF from Singapore to test the supply chain and evaluate costs of importing SAF and invested in studies to consider the feasibility of producing SAF locally
- An agreement was made to supply and transport marine biofuels starting in 2024. The fuel will include a 24% Used Cooking Oil Methyl Ester (UCOME) biofuel blended with very low sulphur fuel oil (VLSFO)
- Green shipping corridors were discussed among stakeholders
- The current policy incentives for biofuels are the New Zealand Emissions Trading Scheme (ETS), the excise tax exemption for bioethanol, the National Land Transport Fund incentive and some R&D support to research institutions
- Carbon pricing through the ETS will drive biofuels in the Aviation and Marine sectors once emissions reporting for the international use of these fuels is required
- A biofuels obligation policy developed in 2021 was rescinded before implementation in 2023

OVERVIEW

Currently, New Zealand uses very little biofuels in transport and use has declined as biofuels currently cost more than fossil fuels. There have been a couple of abortive attempts to introduce biofuel policy, however there are no policies in place at the moment to encourage their domestic use. The prospects for biofuels in the road transport sector is very low, with the large focus on electrification and hydrogen transportation.

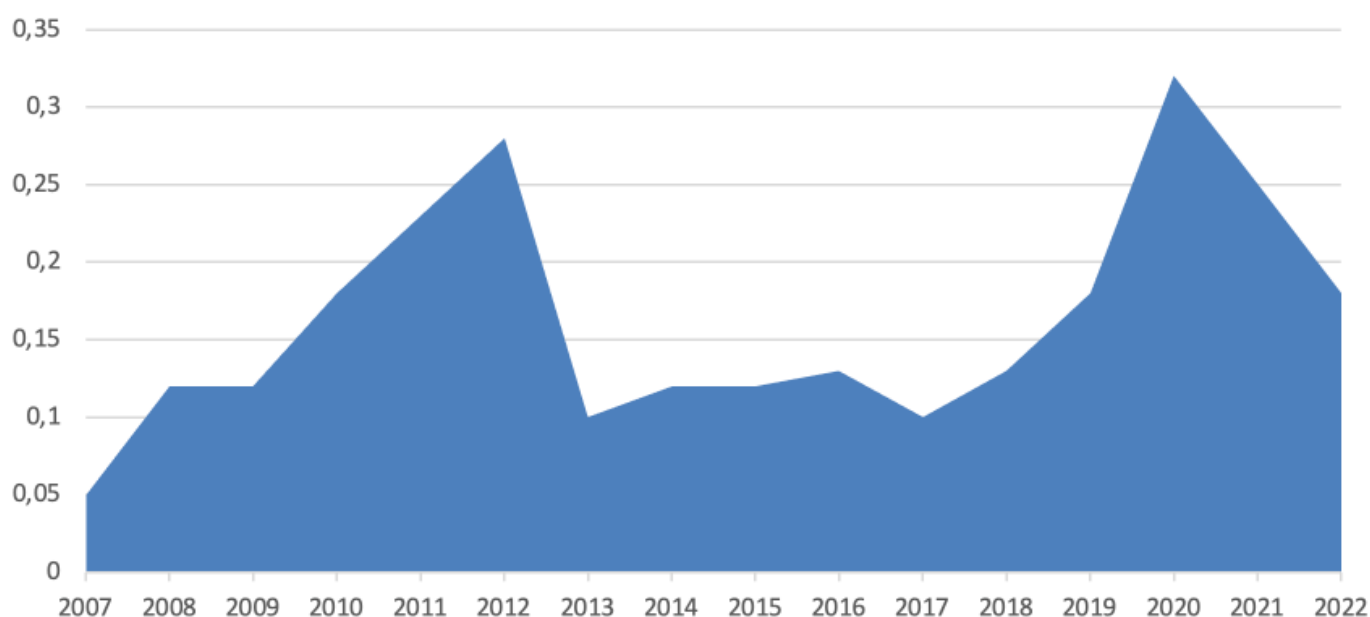
However, with New Zealand's main sectors of GDP being exported products and Tourism, greening of international transportation is receiving much attention. In particular, the development of low carbon Aviation and Marine fuels are being demanded by these industries, and the associated sectors.

PRODUCTION AND CONSUMPTION

In total, New Zealand's use of biofuels is very small <0.1% of total fuels (Total fuel use is 8.6 billion litres including international fuels).

The peaks in 2012 and 2020 have been influenced by policy development. Bioethanol has been mainly produced by Fonterra, a New Zealand dairy co-operative, using waste whey as a feedstock. At its peak, Fonterra produced 15 million litre of ethanol per year. However, in recent years, they have started producing lactose from whey, and therefore their bioethanol production has dropped considerably. Only one fuel retailer is currently blending ethanol, and only into the premium grade of gasoline. Ethanol is now predominantly imported from Australia.

Annual Liquid Biofuels Supply /PJ
MBIE Data tables for renewables



Energy in New Zealand – Renewables Data Tables, Ministry of Business, Innovation and Employment

A small plant in the South Island is producing 500,000 litres biodiesel from used cooking oil and retailing the product to commercial customers.

Additionally, 1.2 million litres of Sustainable Aviation Fuel were imported in 2022 and undisclosed volume of Used Cooking Oil biodiesel will be imported for marine applications, see below.

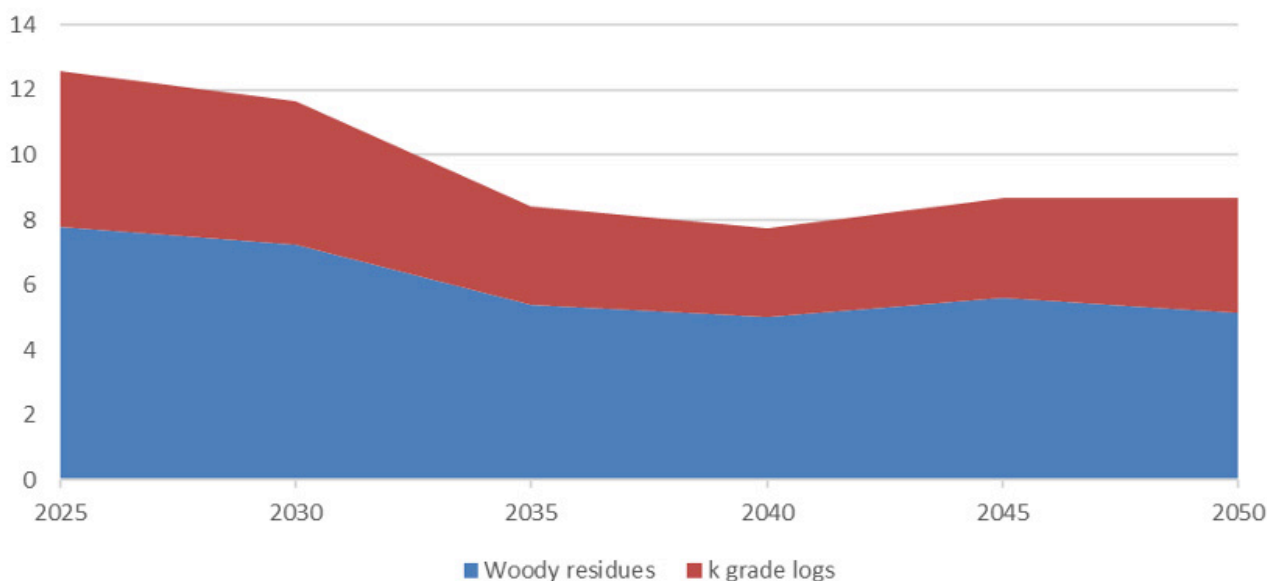
Feedstock for Domestic Production

In 2018, Scion’s New Zealand Biofuels Roadmap was launched by MBE and Z Energy. This study was carried out with multiple stakeholders from the future biofuels value chain, who provided

invaluable input during workshops, interviews and webinars. One of the key findings was that Drop-in biofuels for the marine and aviation sectors from non-food feedstocks, particularly forestry grown on non-arable land, was the most attractive longer-term opportunity for New Zealand. This is still the most like route to biofuels in New Zealand.

New Zealand has about 10 million hectares of forestry, of which 8 million hectares are native forest, and about 1.8 million hectares are dedicated plantation forestry. Only the dedicated plantation or production forest can be used as a source of sustainable feedstock for biofuels. Assessments of the availability of sustainably produced biomass has been made.

Wood resource availability (Million green tonnes)
Scion: Residual biomass fuel projection for New Zealand 2021



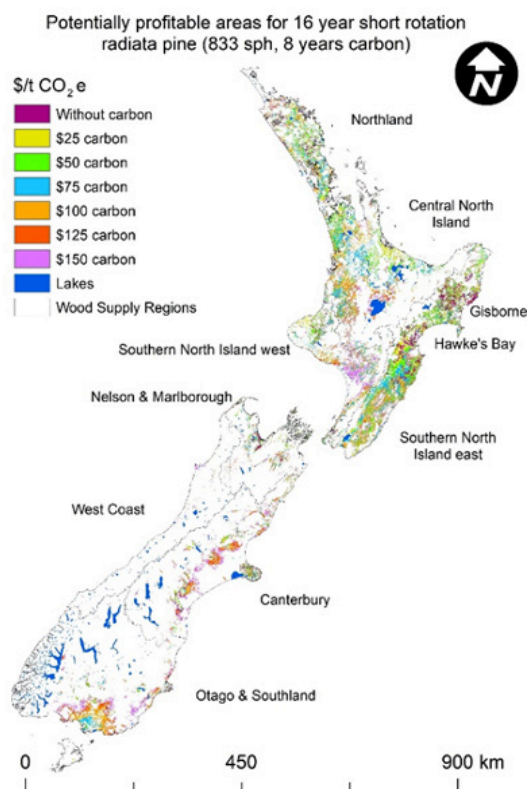
Scion Report (Publicly available), “Residual Biomass Fuel Projections for New Zealand; 2021”, Peter Hall

The long run supply of material that could be considered for wood fuels is around 7.6 million green tonnes per annum. Woody residues consist largely of in-forest post-harvest residues, surplus sawmill chip and surplus pulp logs. K grade logs are low quality industrial logs, not suitable for timber, that are predominantly exported for single use such as concrete pouring and pallet manufacture. At the right price, these could be available for bioenergy.

Clearly, there are competing demands for these resources, eg to replace coal in process heat and feedstocks for biochemicals. However, there is certainly enough biomass feedstock to start a drop-in biofuel industry.

Additionally, New Zealand is looking at Short Rotation Forestry as a means to grow dedicated sustainable bioenergy feedstocks. NZ Te Uru Rakau and Crown Forestry have instigated a research and planting programme to develop 10,000 hectares of short rotation forestry to provide bioenergy feedstocks.

Scion has assessed the economics of this for different species, different planting regimes and a range of carbon prices. An example of the analysis for a 16-year-old Pinus Radiata plantation at 833 stems per hectare is shown below.



From this work, the amount of land within New Zealand that could be economically put into short rotation forestry at increasing carbon prices is shown below. In November 2023, carbon prices in New Zealand were NZ\$73/te CO₂, however the New Zealand Climate Change Commission in their first advice to Ministers said prices need to be NZ\$138/te CO₂ for New Zealand to be on track to achieve our net zero carbon targets.

carbon price (NZ\$/te CO ₂)	total area (million hectare)
0	0.4
25	0.9
50	1.7
75	2.6
100	3.5
125	4.2
150	4.9

On average one million hectares, under this planting regime will average 49 million green tonnes of biomass per annum.

Policies

The main relevant policy instruments behind these evolutions are:

- In 2008, the Government introduced a biofuels sales obligation, which would require suppliers of petrol or diesel in New Zealand to also supply a minimum proportion of biofuels. The biofuel proportion was initially 0.5 percent of a liable supplier's petrol and diesel sales, rising to 2.5 percent over four years. However, it was repealed shortly after the General Election in 2008. Between 2009 and 2012, the Government implemented a biodiesel grants scheme.
- Since then, the main policy incentives for biofuels remaining in New Zealand are the New Zealand Emissions Trading Scheme (ETS), the excise tax exemption for bioethanol and some R&D support to research institutions, such as Scion. The ETS zero-rates the biofuel component of transport fuels, but the current carbon price translates to only around 9 cents per litre for diesel, and 7.8 cents for petrol. The petrol excise duty is 70.024 cents per litre, which translates to a tax advantage of 7 cents per litre for 10 per cent bioethanol blend (E10) over petrol.
- National Land Transport Fund also provides an incentive of NZ\$0.69/litre incentive for the bioethanol fraction of gasoline/ethanol blends
- Biofuels Obligation
 - In June 2021, to help New Zealand move towards net zero emissions by 2050, The Government has announced public consultation on a proposal to increase the use of sustainable liquid biofuels in New Zealand to reduce greenhouse gas (GHG) emissions from transport the New Zealand Government
 - The proposal to implement a sustainable biofuels obligation would have required liable fuel suppliers to reduce the greenhouse gas emissions of the liquid fossil fuels they supply in New Zealand by a set percentage each year, with targets increasing to 9.0% emission reduction

by 2035. The legislation covered all domestic use of liquid fuels, including domestic maritime. Aviation fuels would not be included, as separate Sustainable Aviation Fuels Legislation would be drafted.

- In February 2023, the Prime Minister announced that the biofuels obligation would be discontinued, as part of the Government's policy on fuel prices and cost of living. Some ministers questioned the sustainability of biofuels, particularly those imported from Asia/Pacific. The biofuel obligation was estimated to prevent one million tonnes of emissions over the first two years, and up to nine million tonnes by 2035.

- On 14th November, New Zealand held a General Election. It has taken several weeks for the results to be finalised and a new Government to be formed. A three-way coalition of centre right parties have formed a government (29 November 2023) and are already looking to reverse the previous Government, Labour led, policies. As this is a very recent event, it is unclear what future bioenergy and biofuels will have in New Zealand.

ADVANCED BIOFUELS

Sustainable Aviation Fuels

- In 2022, Air New Zealand purchased 1.2 million litres of SAF from Neste in Singapore. This is equivalent to fuelling around 400 return flights between Auckland and Wellington and in its neat form will reduce lifecycle carbon emissions by up to 80% compared to fossil jet fuel. Whilst this is a small start it will help stakeholders to test the supply chain and understand the true cost of importing SAF into New Zealand.
- Also in 2022, Air New Zealand and the Government (Ministry of Tourism) announced that they were to invest more than \$2 million in two studies to consider the feasibility of producing sustainable aviation fuel in Aotearoa New Zealand. After an extensive Request for Proposals process, two proposals were selected: one with LanzaJet and another with Fulcrum BioEnergy, both US-based. The next phase will further evaluate the technical, economic, supply chain, and environmental feasibility of establishing and operating a SAF production facility in New Zealand.
- New Zealand has set up Sustainable Aviation Aotearoa which is a public-private partnership that will provide advice and coordination to accelerate vital work to decarbonise Aotearoa's aviation sector. SAA has a Leadership Group to provide strategic direction. The Sustainable Aviation Fuel (SAF) Working Group will act as a forum to discuss the technology and regulatory challenges in encouraging the adoption of SAF. The working group will provide advice to Ministry of Transport (MoT) and Ministry of Innovation Business and Employment (MBIE) on possible policy approaches and instruments for enabling the supply of SAF in Aotearoa and the broader region, including but not limited to a SAF mandate, policies to increase SAF affordability, and a roadmap of potential SAF volumes to 2050. It does not substitute or over-ride standard government decision-making processes, it is a vital source of insight to inform these.

Marine Biofuels

- Maritime NZ fully supported the Interim Guidance on the use of biofuels under Regulations 26, 27 AND 28 OF MARPOL ANNEX VI (DCS AND CII) that were developed in the July meeting in London.
- bp Marine, part of BP's trading and shipping business, has entered into a long-term supply agreement with integrated transport company StraitNZ, which includes the supply of marine biofuels in the port of Wellington. This will comprise the supply of marine fuels by barge, including the region's first bio-VLSFO, to its customers from early 2024. The fuel will include a 24% Used Cooking Oil Methyl Ester (UCOME) biofuel blended with very low sulphur fuel oil (VLSFO). The UCOME component is certified by the International Sustainability & Carbon Certification System (ISCC), an internationally recognised certification scheme for biobased materials.
- In November 2023, stakeholders from the Marine sector met to discuss the development of Green Shipping Corridors in and from New Zealand. Stakeholders from a range of sectors, including Shipping lines, Port Operators, Energy Companies, Exporters, were included. The session was facilitated by the Maersk McKinney Moller, Centre for Zero Carbon Shipping.
- In February 2023, Scion Facilitated a Roundtable discussion on Marine Biofuels with participants from industry and Go-

vernment to support the development of drop-in biofuels that could be blended with Marine Fuel Oils and used in existing portside and ship infrastructure.

Perspectives and challenges in biofuels technologies/biofuels technology development and deployment

Liquid biofuels developments in New Zealand will require the deployment of advanced technologies using lignocellulosic (mainly wood) as feedstocks. New Zealand has sufficient residual biomass to kick-start biofuel development and has the capacity to develop further biofuel feedstock systems. The narrative needs to change form "Do we have enough feedstock to support all this bioenergy activity?" to "how much feedstock do we want/need to support our desired bioenergy deployment?"

Biofuels will largely be needed for the long-haul aviation and marine sectors. Road transport will be dominated by EVs and potential hydrogen in New Zealand.

Currently, a range of operators in these sectors, from fuel suppliers, to operators, and customers are demanding a decarbonisation of the sectors. Government ministries and agencies are currently considering what policy support is required in these sectors.



The banner features a background image of wood logs and wood pellets. At the top left is the logo for SVEBIO (Swedish Bioenergy Association). The main text is centered and reads: "NORDIC PELLETS CONFERENCE", "31 January - 1 February 2024", and "Malmö, Sweden". At the bottom, there is a row of logos for PelletsForbundet, BIOENERGI INTERNATIONAL, BIOENERGI, Bioenergy EUROPE, and EN plus.

IN THE NEWS

Reports and research

[Implementation Agendas: Compare-and-Contrast Transport Biofuels Policies](#)

Assessment of successes and lessons learned for biofuels deployment:

[WP1 report: Status of biofuels policies and market deployment in Brazil, Canada, Germany, Sweden and the United States](#)

[WP2 report: Meta-analysis on existing studies](#)

[WP3 report: Case studies technologies](#)

[WP4 report: Sustainable biomass supply chains for international markets](#)

[WP5 report: Synopsis of the project / synthesis of key issues](#)

[Executive summary](#)

Policy and Regulations

October

[High SAF production costs will not deter airlines, says Walsh](#)

Sustainable aviation fuel (SAF) will stay more expensive than kerosene even when large-scale production begins, but the cost will not stop airlines from their emission targets, International Air Transport Association (IATA) head Willie Walsh said.

[Repsol sees “enormous opportunity” in transformation and the energy transition](#)

Repsol's Chairman, Antonio Brufau, highlighted in his speech at the General Shareholders' Meeting, the “enormous opportunity” that the energy transition represents for the company, which is undergoing a transformation based on its human, technological and industrial capabilities to ensure a more profitable and sustainable future.

[Thune, Klobuchar Reintroduce Adopt GREET Act](#)

Sens. John Thune, R-S.D., and Amy Klobuchar, D-Minn., on Oct. 17 reintroduced the Adopt Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation (GREET) Act, which aims to require the U.S. EPA to update its greenhouse gas (GHG) modeling for all renewable fuels under the Renewable Fuel Standard.

November

[EU countries back targets to slash truck CO2 emissions](#)

European Union countries backed tougher CO2 emissions targets for heavy goods vehicles on Monday, requiring new trucks to slash their emissions by 90% by 2040, but they delayed a planned target to drive a switch to electric city buses.

[Reducing CO2 emissions from heavy-duty vehicles](#)

Lorries, buses and coaches are responsible for more than a quarter of GHG emissions from road transport in the EU, and for over 6% of total EU GHG emissions. Despite some improvements in fuel consumption efficiency in recent years, these emissions are still rising, mainly due to increasing road freight traffic.

December

[Neste and ENOC Group collaborate on SAF initiatives in Dubai and the MENA Region](#)

Neste and ENOC Group, a leading integrated global energy player, have agreed to collaborate to explore the possibilities of supplying and purchasing sustainable aviation fuel (SAF) in Dubai and the wider Middle East North Africa (MENA) region in the coming years.

[Calls for tighter rules on biofuels imports to root out palm oil fraud](#)

Investigations suggest a large share of ‘used’ cooking oil being imported could be wrongly labelled as demand outpaces supply

Industry developments

October

[Malaysia mulls expansion of B10 biodiesel usage to industrial sector](#)

Malaysia is considering expansion of its B10 biodiesel programme, which requires the mandatory use of 10% palm oil, to the industrial sector, its plantations and commodities minister said on Tuesday.

[OMV to supply Air France-KLM with SAF](#)

OMV has signed an offtake agreement to supply 2,000 metric tons of sustainable aviation fuel (SAF) to the Air France-KLM Group.

[FedEx Express begins the trial of renewable diesel to reduce well-to-wheel carbon-emissions in UK linehaul truck network](#)

FedEx Express Europe, a subsidiary of FedEx Corp. (NYSE: FDX) and the world's largest express transportation company, has begun trialling hydrotreated vegetable oil (HVO) renewable diesel to fuel five of its company-owned trucks in the United Kingdom.

[Emirates expands collaboration with Neste for the supply of Sustainable Aviation Fuel in 2024 and 2025](#)

Emirates and Neste have expanded their partnership by solidifying their collaboration for the supply of over 3 million gallons of blended Neste MY Sustainable Aviation Fuel in 2024 and 2025. The sustainable aviation fuel (SAF), which will be blended with conventional jet fuel, will be supplied over the course of 2024 and 2025 for Emirates' flights departing from Amsterdam Schiphol and Singapore Changi airports.

November

[Wizz Air Wins Global Sustainability Award of the Year](#)

Wizz Air has been awarded Global Environmental Sustainability Airline of the Year for the second consecutive time at the Center for Aviation (CAPA) Asia Aviation Summit in Kuala Lumpur, Malaysia.

[Virgin Atlantic granted Permit to Fly for historic transatlantic 100% Sustainable Aviation Fuel flight](#)

The UK Civil Aviation Authority has issued Virgin Atlantic with a permit to fly a world-first transatlantic 100% Sustainable Aviation Fuel (SAF) flight.

[First Emirates flights using SAF takes off from Dubai](#)

The first Emirates flights operating with sustainable aviation fuel (SAF) provided by Shell Aviation has taken off from Dubai International Airport (DXB).

[Rolls-Royce successfully completes 100% Sustainable Aviation Fuel test programme](#)

Rolls-Royce (LSE: RR., ADR: RYCEY) has announced that it has successfully completed compatibility testing of 100% Sustainable Aviation Fuel (SAF) on all its in-production civil aero engine types.

[Scania launches biodiesel pilot in Côte d'Ivoire, reducing emissions and creating new jobs](#)

Scania West Africa, TotalEnergies Marketing Côte d'Ivoire, ANADER and LA SIR have inaugurated a biodiesel pilot in Abidjan, the capital city of Côte d'Ivoire. The pilot aims to dramatically reduce emissions from public transport and create jobs through locally produced biofuels, and is a milestone in Scania's systematic way of working with partners, authorities and customers to enable the transition to sustainable transport.



Scania launches biodiesel pilot in Côte d'Ivoire

[Virgin Atlantic flies first 100% SAF flight from Heathrow to New York](#)

Virgin Atlantic's historic flight on 100% sustainable aviation fuel (SAF) takes off from London Heathrow to New York JFK on November 28.

December

[Macquarie Invests €175 Million in Sustainable Aviation Fuel Platform SkyNRG](#)

Macquarie Asset Management announced today an initial investment of up to €175 million (USD\$190 million) in sustainable aviation fuel (SAF) producer SkyNRG, aimed at supporting the company's growth, and its ambition to become a major SAF producer through the development and operation of SAF production facilities.

[Successful biofuel supply chain trial](#)

The Global Centre for Maritime Decarbonisation (GCMD) successfully bunkered the third supply chain of a biofuel blend as part of its pilot to develop a quality, quantity and GHG abatement assurance framework for drop-in green fuels earlier in the summer.

[Neste partners with Coleman Oil to make renewable diesel more available](#)

Neste has partnered with Coleman Oil Company to enable cities and businesses to have easier access to Neste MY Renewable Diesel™ in the state of Washington in the US.

[GE Aerospace Tests 10 Aircraft Engine Models With 100% SAF](#)

GE Aerospace reached a new milestone for a more sustainable future of flight with the completion of testing on its 10th engine model using 100 percent sustainable aviation fuel (SAF) since 2016, confirming the company and its joint ventures have one of the most expansive programs for testing the alternative fuel in the industry.

UPCOMING MEETINGS, CONFERENCES & WEBINARS

[Fuels of the future](#)

22 Jan, 2024 - 23 Jan, 2024, Berlin

The 21st International Conference on Renewable Mobility "Fuels of the Future 2024" takes place on 22 & 23 January 2024 in Berlin. As usual, the conference will be held bilingually (German-English). You can expect more than 60 speakers & more than 700 national and international participants from various industries

[Bio360 Expo 2024](#)

24 Jan, 2024 - 25 Jan, 2024 Nanteas (FR)

Bio360 Expo isn't just a trade show; it's a platform for innovation, connection, and transformation. With a focus on expo renewable carbon, bioenergy, and bioeconomy, our event is where potential turns into progress. Explore cutting-edge technologies, discover new horizons, and immerse yourself in the world of renewable solutions that are revolutionizing industries and reshaping our world. Be a part of the sustainable future- jump aboard today.

[Nordic Pellets Conference 2024](#)

31 Jan, 2024 - 01 Feb, 2024, Malmö (SE)

The Swedish Bioenergy Association (SVEBIO), the Swedish Pellets Association (PelletsFörbundet), and Bioenergy International extend a warm invitation to participants for the Nordic Pellets Conference 2024. This insightful event will take place on January 31st to February 1st, 2024, at the Scandic Triangeln Hotel in Malmö, Sweden.

[Decarbonizing New Zealand](#)

19 Feb, 2024 - 20 Feb, 2024, Auckland (NZ)

Decarbonising New Zealand is designed to provide an interchange of in-depth knowledge and serve as a catalyst for collaboration across organisations that do not necessarily engage with one another daily but share common goals

[Argus Biomass Asia Conference](#)

05 Mar, 2024 - 07 Mar, 2023

Join over 200 senior industry stakeholders at the Argus Biomass Asia Conference in Singapore on 5-7 March 2024, to benefit from high impact networking with influential leaders and insights into developments shaping biomass markets in the region.

[Wood Bioenergy Conference & Expo 2024](#)

12 Mar, 2024 - 13 Mar, 2024, Atlanta (US)

The eighth Wood Bioenergy Conference & Expo is the world's most popular conference for the wood bioenergy industry and is the only event focused exclusively on wood-to-energy. Featured topics include industrial wood pellets, biomass power, biofuels, in-woods chipping, and raw material procurement.

[International Conference & Expo on Biofuels and Bioenergy](#)

11 Apr, 2024 - 12 Apr, 2024, Rome (IT)

We are happy to announce our International Conference & Expo on Biofuels and Bioenergy on April 11-12, 2024 at Belstay Roma Aurelia, Rome, Italy organised in coordination with generous support and cooperation from passionate academicians and Organizing Committee members with the theme "Endorsing New Developments in Biofuels and Bioenergy for a Better Environment". We are delighted to welcome all the leading delegates, scientist, researchers, scholars, professors, energy experts to take part in this approaching to witness various scientific discussions and bestow future improvement in the fi...