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# BC BIOENERGY NETWORK



**BC Bioenergy  
Network**

PARTNERING FOR  
A GREENER FUTURE

# 2023 YEAR IN REVIEW

[bcbioenergy.ca](http://bcbioenergy.ca)

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# ABOUT BC BIOENERGY NETWORK

BC Bioenergy Network (BCBN) facilitates strategic partnerships to identify low carbon solutions in a dynamic regulatory environment.



## *Partnering for a Greener Future*

### **Business Address**

2337 Lower Mall,  
Vancouver, B.C., V6T 1Z4

### **Mailing Address**

PO BOX 78521 University PO,  
Vancouver, B.C., V6T 2E7

### **Contact Information**

604-889-4549  
scott.stanners@bcbioenergy.ca  
[bcbioenergy.ca](http://bcbioenergy.ca)



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# MORE ABOUT BCBN

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## WHO

BCBN guides the development of the bioenergy sector in British Columbia as a facilitator of strategic partnerships to attract investment from private and public sources, BCBN advances the production and use of low carbon fuels in the province to displace fossil fuels, spur innovation, and support economic development.

## WHAT

- Identification of Problems and Conceptual Solutions
- Commission Research and Feasibility Studies
- Project Management and Oversight
- Network Building and Event Hosting
- Investment Attraction and Funding Coordination

## WHY

- **Reduce GHG Emissions:** There is a global need to reduce GHG emissions and mitigate our effect on the environment.
- **Accelerate Innovation:** There is a need to accelerate the move to low carbon solutions in transportation and other sectors of the economy.
- **Reach Government Targets:** BCBN has a critical role in supporting the Province of B.C. toward its GHG emission reduction targets in the CleanBC Roadmap to 2030.
- **Move from Planning Phase to Commercial Scale Operations:** BCBN acts as a catalyst to move projects from the planning phase into commercial deployment at scale, including efforts to attract investment and remove barriers to deployment.

## HOW

- **Strategic Partnerships:** Form strategic partnerships with local, national and international entities to fund purpose-driven research and feasibility studies in the low carbon fuels sector.
- **Convene Key Stakeholders:** Convene key stakeholders in the low carbon fuels sector to enable a coalition approach to identify solutions for complex challenges.
- **Project Leadership:** BCBN leads projects from the development of a request for proposal to proponent selection, project management and completion.
- **Advisor to Government:** Use our knowledge and information from research and project activities to advise government on the strategic direction of the low carbon fuels sector in B.C., Canada and internationally to meet climate change targets.
- **Capacity Building and Training Programs:** Develop and facilitate training, education and capacity building programs through workshops, webinars, conference sponsorship, and the West Coast Bioenergy Guild to strengthen the low carbon fuels network in B.C. and Canada.
- **Event Management:** Plan and host virtual and in-person events to facilitate information exchange related to innovation and policy developments in the bioenergy sector.



# WEST COAST BIOENERGY GUILD 2023

West Coast Bioenergy Guild is a regular educational networking event hosted by BC Bioenergy Network since 2009. Special guests share their insights and highlights from the bioenergy sector followed by group discussion. Recordings and slides are available at the [BCBN website](#).

## Special Guests

January



### IAN THOMSON

President, Advanced Biofuels Canada

Presentation Topic: "Biofuels in Canada: A Decade of Progress & Policies for the Next Decade of Growth"

June



### Dr. MICHAEL RENSING

President, MJ Rensing Consulting Inc.

Presentation topic: "BC Transportation Energy from 2010 to 2035"

August



### LOUISE BURKE

VP Strategic Business Development NA Renewables and Global Head of Aviation, Argus Media

Presentation topic: "Renewables and Feedstocks in the Transport Sector"

August



### WILL ROBSON

VP Global Conferences, Argus Media

Presentation topic: "Argus North American Biofuels, LCFS & Carbon Markets Conference - making new relationships with Canada"

September



### Dr. FAHIMEH YAZDAN PANAHA

Director of Research and Technical Development, Wood Pellet Association of Canada

Presentation topic: "Capturing the Benefits: Environment & Efficiency"

November



### ROB PINCHUK

Director - Low Carbon Strategy, Parkland

Presentation topic: "Parkland coprocessing and how we move ideas forward against the normal human resistance to change"



# BC SMART LOW CARBON FUELS CONSORTIUM

## Project Title:

**BC Sustainable Marine,  
Aviation, Rail and Truck  
Low Carbon Fuels  
Consortium**



## Consortium Members:



BCBN funded the establishment and growth of the BC Sustainable Marine, Aviation, Rail and Truck (BC SMART) Low Carbon Fuels Consortium. BC SMART leverages industry and government support to develop “software” recommendations such as policy and regulatory measures as well as “hardware” recommendations that identify supply chain and infrastructure to facilitate the production of low carbon transportation fuels in B.C.

Nearly 20 organizations including Air Canada, WestJet, Boeing, YVR Airport Authority, CP Rail, CN Rail, and Seaspan executed a memorandum of understanding to collaborate on the decarbonization of the transportation fuels they consume including gasoline, diesel, jet and marine fuels. BC SMART publishes a newsletter, hosts theme-driven workshops, and publishes reports that evaluate low carbon fuel options in B.C. for these sectors.

## Newsletters:

**Issue 10, September 2023**

[Decarbonising the Aviation Sector](#)

**Issue 9, March 2023**

[Decarbonization of aviation/marine workshop](#)

## Events:

**Workshops, February 2023**

Decarbonization of aviation/marine

Accelerating deployment of SAF in Canada

## Related IEA Bioenergy Task 39

### Newsletters:

**Issue 63, October 2023**

[Biofuels Policies and Market in China](#)

**Issue 62, July 2023**

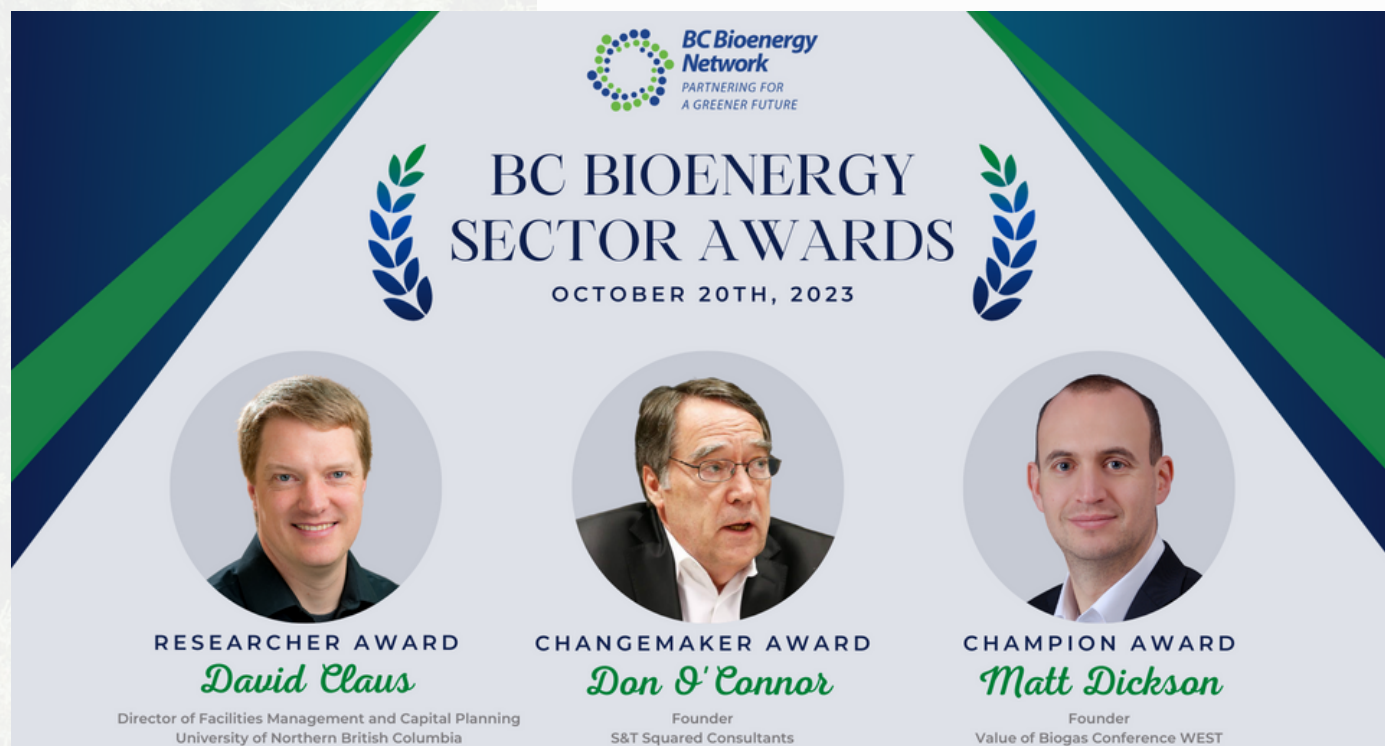
[Biofuels Policies and Market in the European Union](#)

**Read More about BC SMART:**

[www.bc-smart.ca](http://www.bc-smart.ca)

# BC BIOENERGY SECTOR AWARDS 2023

BCBN hosted the 3rd edition of the BC Bioenergy Sector Awards in 2023. The awards recognize leaders who have made meaningful contributions to advance bioenergy research, policy & sector building, and innovation in British Columbia and were presented at the virtual ceremony on October 20th, 2023.



**Congratulations to the winners of the third annual  
BC Bioenergy Sector Awards!**

## **Researcher Award**

David Claus

Director of Facilities Management and Capital Planning, University of Northern British Columbia

## **Changemaker Award**

Don O'Connor

Founder, S&T Squared Consultants

## **Champion Award**

Matt Dickson

Founder, Value of Biogas WEST



# BC BIOENERGY SECTOR AWARDS: VIRTUAL CEREMONY



On Friday, October 20th, 2023, BC Bioenergy Network announced three recipients of the 2023 BC Bioenergy Sector Award during the virtual ceremony. This was the third annual celebration of the BC Bioenergy Sector Awards. The awards were presented for outstanding leadership and contribution to the bioeconomy sector in British Columbia.

The one-hour virtual event was opened by our very own Scott Stanners (BC Bioenergy Network) and inspired by comments from last year's winners: Xiaotao Tony Bi (UBC Clean Energy Research Centre), Robert Pinchuk (Parkland Corporation) and Dave Schick (Canadian Fuels Association). After the presentation of the awards, the recipients shared an acknowledgment speech on the topic of bioenergy. Ralohn Hunt (BC Bioenergy Network) hosted a refreshing Trivia Quiz, and surprise Special Guest Ashley Callister (CICE) and friend Tess delivered an extraordinary bioenergy-themed musical performance.

## BC Bioenergy Sector Awards

Presented on Bioenergy Day, October 20th, 2023

Featuring comments from Award Winners from 2022 and 2023:



Researcher Award 2022  
**Xiaotao Bi**  
UBC



Changemaker Award 2022  
**Robert Pinchuk**  
Parkland Corporation



Champion Award 2022  
**David Schick**  
Canadian Fuels Association



Researcher Award 2023  
**David Claus**  
UNBC



Changemaker Award 2023  
**Don O'Connor**  
S&T Squared Consultants



Champion Award 2023  
**Matt Diskson**  
Value of Biogas WEST



[Watch the Recording.](#)

BC Bioenergy Network thanks you for your nominations and participation.

We are proud to recognize the accomplishments of the award recipients and look forward to continuing support and celebrating the growth of the sector.

# HIGHLIGHTED EVENTS 2023

## Sponsored:

### 2023 Value of Biogas WEST Conference



October 16th - 18th, 2023, Calgary, AB

The 2023 Value of Biogas West was a two-day in-person event with a full conference agenda, including various biogas and RNG presentations and engaging speakers. Both days provided sponsors and exhibitors with opportunities for networking and building new connections. The Conference was hosted by the Canadian Biogas Association and saw record-breaking attendance. [See details.](#)

### Bio-Heat Summit



October 19th, 2023, Revelstoke, B.C.

The City of Revelstoke hosted a Bio-Heat Summit on October 19, 2023 that was intended to leverage Revelstoke's long history in community bioenergy to raise awareness about Revelstoke's leadership while also facilitating a discussion that would lead to the ideas for enhancing the system's long-term viability. [See details.](#)

## Other:

### Scaling Up 2023: The Future is Now



November 6th - 8th, 2023, Ottawa, ON

This was Canada's 8th annual industrial bioeconomy business conference, that took place at the Chateau Laurier, Ottawa in November 2023. [See details.](#)

### IEA Bioenergy Task 32 Workshop: Biomass Combustion and CCUS



September 21st, 2023, online

As a part of the BECCUS 2.0 project conducted by several Tasks in IEA Bioenergy, Task 32 organized a workshop targeted at plant operators aiming to describe the consequences of installing carbon capture technology at biomass and waste combustion units. [See details and recording here.](#)

### Webinar Series: Biocarbon Incorporation into Transportation Fuels via Coprocessing in Refineries



September 20th & 27st, 2023, online

The U.S. Department of Energy's Bioenergy Technologies Office hosted a two-day webinar series to highlight the key takeaways from the Bio-oil Co-processing with Refinery Streams project. [See details and recording here.](#)



# HIGHLIGHTED EVENTS 2023



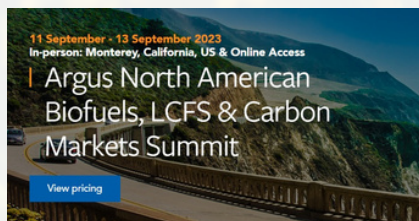
## Wood Pellet Association of Canada (WPAC) Conference



September 19th - 20th, 2023, Ottawa, ON

The WPAC Conference and AGM is Canada's largest gathering of the Canadian wood pellet industry. Each year, the event attracts hundreds of wood pellet, biomass and bioenergy professionals from across the country, as well as the U.S., Europe and Asia, to discuss the issues impacting the industry in Canada. This conference is an opportunity to learn about the most critical issues from industry experts around the globe. [See details.](#)

## Argus North American Biofuels, LCFS & Carbon Markets Summit



September 11th - 13th, 2023, Monterey CA, US

This Summit brought together 600+ regulators, key government and industry participants across the entire biofuels supply chain for three days of networking and knowledge exchange. [See details.](#)

## National Indigenous Clean Energy Forum



July 28th, 2023, Vancouver, B.C.

Indigenous Clean Energy's 20/20 Catalysts Program has established a wide range of partnerships between Indigenous communities, utilities, clean energy development firms, provincial and territorial governments and clean energy companies. The sixth annual forum offered a fantastic opportunity to get to know the 2023 Catalyst cohort and continue the conversation on how Indigenous communities are advancing an Indigenous-led clean energy future! [See more about Indigenous Clean Energy.](#)

## Advanced Bioeconomy Leadership Conference ABLC 2023



March 22nd - 24th, Washington, D.C.

The conference covered topics of renewable diesel, sustainable aviation fuel (SAF), biogas & RNG, renewable propane & DME, renewable chemicals, biobased materials, food, and feed, and advanced biorefineries in combinations of multiple inputs and products. [See details.](#)

# B.C. BIOENERGY NEWS HIGHLIGHTS 2023



## **B.C. Centre for Innovation and Clean Energy (CICE) Supports Innovation for Forest Residue Management in B.C. through \$2.6M Investment**

CICE is investing \$2.6 million to advance innovative solutions that can reduce emissions or create new clean energy feedstocks, while also addressing the pressing challenge of sustainably managing wood waste and increasing wildfire resiliency within British Columbia. This non-dilutive funding will fast-track the commercialization and scaling of solutions across the entire forest residue management value chain, including collection, transportation, processing and end-use. [Details here.](#)



## **Tidewater Renewables Launches Commercial Operations**

On November 9, 2023, Tidewater Renewables confirmed its 3,000-barrel-per-day (45.99 MMgy) renewable diesel complex located at its refinery in Prince George, British Columbia, produced its first renewable diesel on October 22 and as of November 7 had progressed to commercial operations. [Details here.](#)



Forest Enhancement  
Society of British Columbia



## **The Forest Enhancement Society of BC (FESBC) Announce 42 Newly Funded Projects to Help Utilize Waste Wood and Mitigate Wildfire Risk**

FESBC unveiled 42 newly funded projects across the province of British Columbia. These initiatives will either aid in transporting uneconomical forest fibre to pulp and pellet mills or green energy facilities or assist communities in reducing their wildfire risk. These recent funding allocations stem from the Ministry of Forests' earlier contribution of \$50 million to FESBC this year. The objective is to bolster fibre supply by making use of uneconomical fibre, simultaneously decreasing wildfire risk, and providing support to workers and communities. [Details here.](#)



## **Construction Underway at Vancouver Landfill for Renewable Natural Gas (RNG) Facility**

FortisBC and the City of Vancouver are working together on constructing an RNG facility at the city's landfill in Delta, B.C. The project is an example of how FortisBC is working with municipalities to develop more local renewable and low-carbon gases to help reduce greenhouse gas emissions and provide safe, affordable and reliable energy solutions for B.C. families and businesses. [Details here.](#)



## **The Burning Question: Researchers Address Harvest Residue Management in B.C.**

The management of harvest residues has long been a challenge for British Columbian operators who are tasked with balancing wildfire fuel loading, planting space, and financial, operational, and regulatory constraints. Now, society's concerns about carbon emissions have been added to that list and practices will have to change. [Details here.](#)

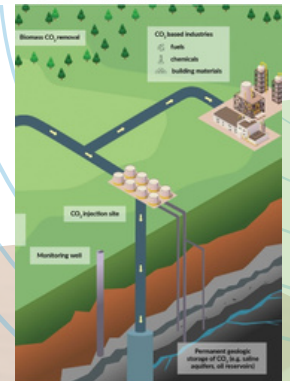


# CANADA BIOENERGY NEWS HIGHLIGHTS 2023

**Clean50**  
exceptional contributors to the clean economy  
contributeurs exceptionnels à l'économie propre



 **Natural Resources Canada**



## Canadian Council for Sustainable Aviation Fuels (C-SAF) is the Recipient of Canada's Clean50 Top Project Award 2024

The Clean50 Top Projects annually recognizes projects based on their innovation, ability to inform, and inspiration for other Canadians. C-SAF was awarded for its creation of Canada's first Sustainable Aviation Fuels (SAF) Roadmap. Partnered with The Energy Futures Lab and The Transition Accelerator, they provide the plan Canada needs to reach the lofty goal of a Net Zero aviation industry. [Details here.](#)

## Minister Wilkinson Released Canada's Carbon Management Strategy

The Honourable Jonathan Wilkinson, Minister of Energy and Natural Resources, released Canada's Carbon Management Strategy at the International Energy Agency in Paris, France – [read the announcement.](#) The Strategy sets out a vision for carbon management technologies to be deployed to help achieve Canada's climate objectives, underpinned by the development of a world-class, multibillion-dollar carbon management sector in Canada that supports inclusive, high-value employment and a more sustainable economy. The Strategy presents a roadmap that illustrates a path to fulfilling this vision, including 2030, 2040 and 2050 milestones. [Details here.](#)

## Request for Proposal (RFP): SAF for CFB Trenton

The Department of National Defence in Canada issued an RFP for supplying aviation turbine fuel containing 30% synthetic hydrocarbon components to the CFB Trenton in Ontario. Solicitation documents can be downloaded [here.](#) The RFP closed in September 2023.

## Government Consulted Canadians on Budget 2023 Measures to Grow the Clean Economy, Close Tax Loopholes, and Deliver Tax Relief for Canadians

The Government of Canada moved forward with consultations to advance key budget priorities to grow the clean economy and ensure tax fairness for Canadians and Canadian businesses. Canadians were invited to share their views and feedback on draft legislative proposals for various measures to Grow Canada's Clean Economy, such as:

- The Carbon Capture, Utilization and Storage (CCUS) Investment Tax Credit;
- The Clean Technology Investment Tax Credit;
- Labour Requirements Related to Certain Investment Tax Credits;
- Enhancing the Reduced Tax Rates for Zero-Emission Technology Manufacturers; and
- Flow-Through Shares and the Critical Mineral Exploration Tax Credit – Lithium from Brines.

[Details here.](#)

## Demand for Biofuels Sparks Canadian Boom. But Will U.S. Subsidies Pull Investment South?

The biofuel industry in Canada is witnessing substantial investment and growth, primarily driven by the rising global demand for biofuels and the implementation of Canada's Clean Fuel Regulations. However, this upward trajectory could face challenges due to the U.S. Inflation Reduction Act, which provides subsidies to American producers of clean transportation fuels, including those targeted for export. Furthermore, many fuel companies could easily build projects in Canada or the U.S., but will choose the option that makes the most economic sense. [Details here.](#)

# CANADA BIOENERGY NEWS HIGHLIGHTS 2023

## Edmonton International Airport (YEG) and FORGE Hydrocarbons Partner to Showcase the Power of Low-Emission Fuel

YEG and Alberta's FORGE Hydrocarbons signed a memorandum of understanding to showcase their dedication to collaboratively advancing SAF production in the Edmonton Metro Region. [Details here.](#)



## EverGen Marks First RNG Injection at GrowTEC Facility in Alberta

EverGen Infrastructure Corp. announced the first injection of renewable natural gas (RNG) at its GrowTEC facility in late June 2023, following utility grid connection upon completion of gas quality sampling. It has been producing daily volumes of up to 180 GJ/d. This milestone marks a pivotal moment for EverGen in successfully delivering this core RNG expansion project and further strengthening its RNG infrastructure platform in Canada. [Details here.](#)



## Forest Sector Helps Canada Reach Net-Zero Target Through Decarbonization of Lime Kilns

Lime kilns are the largest emitters of non-biogenic GHG emissions in a pulp mill. Natural Resources Canada and FPInnovations acknowledge the contribution of the forest industry to the decarbonization strategy of lime kilns that aims to significantly reduce greenhouse gas (GHG) emissions produced by kraft pulp mills. [Details here.](#)



## Request for Proposals (RFP) Biofuels Demonstration for Marine Vessels

Transport Canada's Clean Marine R&D Group posted a request for proposals for the demonstration of Biofuels for Marine Vessels. The objective of this RFP is to solicit marine demonstration projects that will:

- Advance and demonstrate the technological and/or commercial readiness of biofuels for Canada's domestic vessels;
- Characterize biofuel performance and benefits (e.g., fuel consumption reduction, operational and maintenance costs, potential for commercial sustainability);
- Identify regulatory and technical barriers to the adoption of biofuels for Canada's domestic fleet, including associated fuel infrastructure, and recommend potential mitigations/solutions; and
- Advance publicly available science, research, and knowledge about biofuels in Canada. The RFP closed in February 2023. [Details here.](#)



## C-SAF Released Open Letter to Governments

C-SAF published an open letter titled "Working Together to Create a Canadian Supply of SAF. Ready to take off?". It was signed by over 15 C-SAF members, urging the Canadian government to actively participate in SAF production nationwide. The letter emphasized the need for immediate and tangible steps to develop a domestic supply of SAF as the most effective means to decarbonize the aviation sector. [Details here.](#)





# CANADA BIOENERGY NEWS HIGHLIGHTS 2023

## C-SAF Roadmap: Building a Feedstocks-to-Fuels SAF Supply Chain in Canada

C-SAF introduced a comprehensive roadmap that outlined its policy framework, priority actions, and forthcoming measures. The goal was to ensure the competitiveness of the Canadian aviation industry during its transition to a net-zero future by 2050. This initial roadmap for (SAF) in Canada is the culmination of over a year of dedicated collaboration with crucial stakeholders from the SAF ecosystem, including airlines, airports, fuel and feedstock suppliers, aerospace companies, academia, and government bodies. [Details here.](#)



## Canada Announces a \$350M Investment in a Sustainable Aviation Network

The Canadian government announced a \$350 million investment in the [Initiative for Sustainable Aviation Technology \(INSAT\)](#) to promote the green transformation of the aerospace industry. This funding, provided through the Strategic Innovation Fund, will establish an industry-led aerospace network across Canada. The network will support collaborative research and development projects with companies of all sizes in the Canadian supply chain. [Details here.](#)



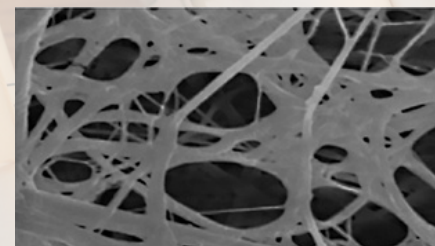
## Database on Energy, Emissions, and Production for Canadian Industry

Canadian Energy & Emissions Data Centre (CEEDC) finished a detailed database on utility and industrial electricity generation. While much of this information is available from Statistics Canada, no single product brought together all the details, including generation, energy use by type of fuel, and GHG emissions. Values in the electricity database align with generation and fuel data from Statistics Canada and emissions data from Environment and Climate Change Canada's [National Inventory Report](#). CEEDC makes estimates to assign electricity generation and fuel amounts to individual industrial sectors. [Details here.](#)



## Performance BioFilaments Inc. Announced Start-Up of Nanofibrillated Cellulose Commercial Production

Performance BioFilaments Inc. announced the start-up of the world's largest nanofibrillated cellulose (NFC) commercial production plant at Resolute's Forest Products, Kénogami paper mill in Quebec. A daily production capacity of 21 metric tons is available to supply customers for commercial orders in concrete and mortar, nonwoven, industrial fluid, biocomposite plastic, thin film and mineral consolidation applications. [Details here.](#)



## Quebec Initiative to Advance Next-Gen Sustainable Aviation Fuel

Airbus Canada, Pratt & Whitney Canada, and SAF+ Consortium announced a new initiative to collaborate on next-generation SAF, supported by the Government of Quebec. Known as CADAQ-100, the project will contribute to the industrywide effort to achieve net-zero CO2 emissions for aviation by 2050, as outlined by Air Transport Action Group (ATAG) and International Air Transport Association (IATA) in their decarbonization roadmaps. [Details here.](#)



# CANADA BIOENERGY NEWS HIGHLIGHTS 2023

## Calgary's Expander Energy to Build Biosynthetic Diesel Facility

Calgary-based Expander Energy signed an agreement with Rocky Mountain Clean Fuels Inc. to build its first biomass-to-liquids project and produce low carbon renewable biosynthetic diesel by 2025. Expander's patented biomass gasification technology and proven Fisher-Tropsch conversion technology will be used to manufacture renewable fuels that exceed current and future fuel standards both in Canada and abroad. [Details here.](#)



EXPANDER ENERGY INC.  
INNOVATIVE ENERGY SOLUTIONS



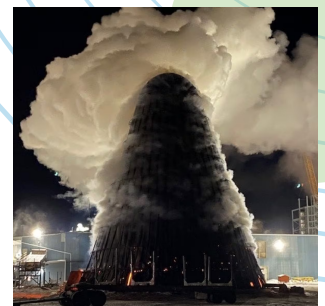
## CHAR Produces Biocoal at Canada's Largest RNG & Biocoal Facility to Complete Phase 1 of the Project

CHAR Technologies Ltd. announced it completed Phase 1 of the Thorold Renewable Natural Gas & Biocoal project with the initial production of biocoal in Thorold, ON. [Details here.](#)



## From Pollution to Power: Canada's First Indigenous-Owned Bioenergy Facility Opens

A sawmill in northern Saskatchewan became the first Indigenous-owned bioenergy centre in Canada, using leftover wood chips, bark and sawdust to generate enough electricity to heat 5,000 homes while reducing emissions. [Details here.](#)



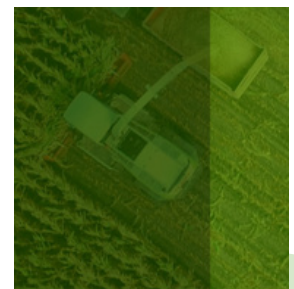
## Imperial Approves \$720 Million for Largest Renewable Diesel Facility in Canada

The project at Imperial's Strathcona refinery near Edmonton is expected to produce more than one billion litres of renewable diesel annually, primarily from locally sourced feedstocks and could help reduce greenhouse gas emissions in the Canadian transportation sector by 3 million metric tons per year. [Details here.](#)



## Steeper Energy Enters Agreement with Topsoe to Introduce Complete Waste-to-Biofuel Solution

Topsoe is now able to provide a complete waste-to-fuel technology solution and, at the same time, a one-stop solution for refineries, project developers, and industries having access to excess waste biomass. The end products include SAF, marine biofuel, and renewable diesel from waste biomass. [Details here.](#)



## Bioveld Canada – Canada & Ontario Invest Over \$11.3M For CHAR Technologies Thorold Facility

CHAR Technologies Ltd. announced that the governments of Canada and Ontario are investing more than \$11.3 million to expand CHAR Technologies' facility in Thorold, Ont., to produce renewable natural gas (RNG) and biocarbon – creating the largest facility of its kind in Canada, and the only RNG facility in the country to use woody biomass exclusively. [Details here.](#)





# INTERNATIONAL BIOENERGY NEWS HIGHLIGHTS 2023

## NESTE



**HONEYWELL UOP AND  
GRANBIO TECHNOLOGIES**  
TO PRODUCE INDUSTRY-LEADING LOW-CARBON-FOOTPRINT  
SUSTAINABLE AVIATION FUEL (SAF) FROM BIOMASS RESIDUE.

GranBio

Honeywell  
UOP

## raízen



## LDC.

Louis Dreyfus Company



Council of the  
European Union

### **Neste, ISCC and DHL Group Successfully Piloted a New System Enabling Credible and Traceable Transfer of Sustainability Benefits from Use of SAF Along the Value Chain**

Neste, ISCC and DHL Group joined forces to pioneer and test a system through which airlines, logistics service providers and end customers such as corporates can credibly report the emission reduction achieved by using SAF to reduce their carbon footprint from air travel and transport. [Details here.](#)

### **Honeywell and GranBio Ink SAF Deal to Combine Tech**

Honeywell and GranBio Technologies announced that they will combine Honeywell's ethanol to jet (ETJ) technology with GranBio's cellulosic ethanol AVAP technology to produce carbon neutral SAF from biomass residues at GranBio's forthcoming U.S. demonstration plant. [Details here.](#)

### **Raízen and Wärtsilä to Use Ethanol for Marine Decarbonization**

In Brazil, Raízen and Wärtsilä signed a Decarbonization Agreement to advance the reduction of emissions from the maritime sector. By studying the application of ethanol as a marine fuel, the new initiative aims to reduce GHG emissions, offer new options to customers looking for sustainable fuel alternatives and contribute substantially to the discussion of the energy transition in the sector globally. [Details here.](#)

### **Louis Dreyfus Company (LDC) Announced Construction of a Soybean Processing Plant**

Ground-breaking new research showed that carbon removal solution biochar can play a significant role in global emissions reductions at the international and national levels. The ancient farming practice can help countries mitigate climate change threats and decarbonize at scale while also adapting to the effects of climate change and unlocking economic and social benefits. [Details here.](#)

### **EU Council Adopted the New Renewables Energy Directive**

The EU Council adopted the new Renewables Energy Directive to raise the share of renewable energy in the EU's overall energy consumption to 42.5% by 2030, with an additional 2.5% indicative top-up to allow the target of 45% to be achieved. Each member state will contribute to this common target. [Details here.](#)

# INTERNATIONAL BIOENERGY NEWS HIGHLIGHTS 2023



## **International Maritime Organization (IMO) Adopts Revised GHG Reduction Strategy for International Shipping**

IMO's Member States, meeting at the Marine Environment Protection Committee in London, adopted the 2023 IMO Strategy on Reduction of GHG Emissions from Ships, with enhanced targets to tackle harmful emissions. [Details here.](#)



## **KLM, Neste and CFM International Tested Aircraft Engine running on 100% SAF**

KLM Royal Dutch Airlines partnered with engine manufacturer CFM International and fuel producer Neste to conduct a test using an aircraft engine running on 100% SAF. Data analysis confirmed that 100% SAF can be used safely. The test generated new data that can be used to set further specifications for SAF. [Details here.](#)



## **U.S. Department of Energy (DOE) Awards \$118 Million to Accelerate Domestic Biofuel Production**

DOE announced \$118 million in funding for 17 projects to accelerate the production of sustainable biofuels for America's transportation and manufacturing needs. The selected projects, located at universities and private companies, will drive the domestic production of biofuels and bioproducts by advancing biorefinery development, from pre-pilot to demonstration, to create sustainable fuels that reduce emissions associated with fossil fuels. [Details here.](#)



## **LanzaJet Freedom Pines Fuels Received Environmental Protection Agency (EPA) Fuel Pathway Approval**

LanzaJet, a leading sustainable fuels technology company and sustainable fuels producer, received approval from the EPA to generate D4 biomass-based diesel renewable identification numbers (RINs) for sustainable aviation fuel and renewable diesel produced from sugarcane ethanol at LanzaJet's Freedom Pines Fuels facility in Soperton, Georgia. [Details here.](#)



## **Methanex Corporation, Stena Line and the Port of Gothenburg Achieved New Methanol Marine Fuel Milestone**

On January 23rd, 2023, the world's first methanol ferry, the Stena Germanica, was the first non-tanker to successfully complete ship-to-ship methanol bunkering at the Port of Gothenburg in cooperation with Methanex. This partnership is another demonstration of the leadership role that the parties play in growing the demand for methanol as a marine fuel and their commitment to playing an active role in supporting the industry's energy transition. [Details here.](#)





# BIOENERGY POLICY HIGHLIGHTS 2023

## Provincial:

### Low Carbon Fuel Standard (LCFS): Aviation Fuel Regulation Update

The Ministry of Energy, Mines and Low Carbon Innovation considered the feedback received regarding the expansion of the LCFS to include aviation fuel and incorporated changes to the carbon intensity reduction schedule and exemption threshold. Review the changes at Aviation Fuel Regulation Update. [Details here.](#)

### BC Low Carbon Fuel Standard: Draft Co-processing Methodology Protocol Released

The BC Ministry of Energy, Mines and Low Carbon Innovation released a draft protocol for determining the carbon intensity and volume of the renewable/low carbon portion of co-processed fuel. Co-processing is when low-carbon and/or renewable feedstocks are used in combination with petroleum feedstocks during the refining process to produce blended fossil and lowcarbon fuel products. The Ministry is accepting feedback on the protocol. [Details here.](#)

### Amendments to the B.C. Climate Change Accountability Act

The Ministry of Environment and Climate Change Strategy proposed amendments to the Climate Change Accountability Act to add a new target for B.C. to achieve net-zero greenhouse gas emissions provincewide by 2050. The new net-zero by 2050 target will complement B.C.'s existing targets and align B.C. with the 25 countries (including Canada) and 27 subnational governments that have legislated their net-zero targets. The Ministry hosted a webinar to provide an overview of the proposed target, answer questions and accepted feedback on the new legislated net-zero by 2050 target.

### New Draft Forest Carbon Offset Protocol

The B.C. Ministry of Environment and Climate Change Strategy has posted a new draft forest carbon offset protocol to the B.C. Offset Program website accompanied by an overview letter detailing changes to the protocol to date, and next steps. [Details here.](#)



Low Carbon Fuel Standard:  
Aviation Fuel Regulation Update

B.C. Low Carbon Fuel Standard:  
Coproprocessing Methodology Protocol



Net-Zero Emissions by 2050



British Columbia Greenhouse Gas Offset Protocol:  
Forest Carbon

# BIOENERGY POLICY HIGHLIGHTS 2023

## Federal:

### Clean Fuel Regulations – Credit and Tracking System (CATS) Update

An updated version of [CATS](#) is available that includes the following functionalities:

- Carbon Intensity Contributors can now register in CATS and submit carbon intensity applications;
- Verification permissions and onboarding of users functionality are updated and new flows are added for assigning Verification Bodies to reports and applications;
- Notice of Error and Notice of Suspension;
- Compliance Reports can be submitted to verification bodies and ECCC;
- Compliance Report calculations; and
- Report Re-Submission (Annual credit-creation report, One-time Quarterly CCR, Compliance Report).

For more information on using CATS, see the [FAQs](#) and [CATS User Guides](#).

### Clean Fuel Regulations' Updates

The Low Carbon Fuels Division of Environment and Climate Change Canada (ECCC) published a [factsheet](#) (folder 4) outlining the 2023 reporting requirements for registered creators under the Clean Fuel Regulations, [List of Registrants](#) (folder 1) and [Reporting, Verification and Compliance Calendars](#) (folder 10). See the [table of contents](#) (folder 0) for easy navigation of the available materials. [Access the Drive](#).

The deadline for the first Credit-Creation Reports for the 2022 compliance period was June 30, 2023. The reports had to be submitted along with a third-party verification report that meets specific requirements and through ECCC's Credit and Tracking System (CATS). An update to CATS was planned in early May to allow for the upload and submission of Verification Reports. Registered creators should not submit Credit-Creation Reports until the verification report upload feature is available. For more information on using CATS, users were recommended to consult the User Guide. It was recommended for registered creators to review Chapter 6 Credit-Creation Reports in the CFR Credit Tracking System User Guide v2.1 while completing their Credit-Creation Report(s) in CATS.

### New Version of the Fuel Life Cycle Assessment (LCA) Model

Find the new version of the Model in the Environment and Climate Change Canada Data Catalogue together with the document [Fuel-LCA-Model-Changes-sinceprevious-publication\\_January2023](#), which describes the main changes brought to the Model since its formal publication in July 2022. [Catalog here](#). [Information about the Model here](#).

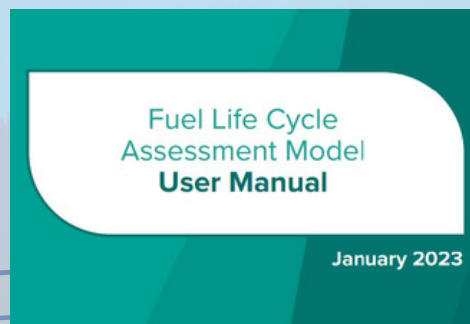


Environment and  
Climate Change Canada

#### Clean Fuel Regulations



Canada



### The Inflation Reduction Act (IRA) is a Game Changer for Canada's Climate and Energy Security

Read how Bob Larocque, President and CEO of Canadian Fuels Associations, is reflecting on the impact of The Inflation Reduction Act (IRA) on low-carbon transportation fuels projects in Canada. Canada has everything it takes to be a global leader in low-carbon transportation fuels – energy infrastructure, sustainable feedstocks and expertise – everything except for a competitive investment climate with the U.S. [Details here](#).





# PODCASTS 2023

## ARC Energy Ideas Podcast

Peter Tertzakian and Jackie Forrest from the ARC Energy Research Institute explore trends that influence the energy business, including financial, political, environmental, technological, social and economic forces.

### Episode: Are Carbon Offsets Credible?

ARC Energy Research Institute released a episode of ARC Energy Ideas Podcast, where the guest Dirk Forrister, President and CEO of the International Emissions Trading Association, talks about the state of the carbon markets. [Listen to this episode here.](#)

## Fuel for Thought Podcast

The Fuel for Thought Podcast is the world's first podcast about renewable fuels. Sylvain Verdier and Mikala Grubb from Topsoe, look into some of the most pressing topics about renewable fuels, covering the whole value chain of renewable fuel production, including feedstock supply, conversion technology, legislation, sustainable aviation fuel and much more. Together with a series of key industry players, experts, and influencers they discuss some of the challenges facing the industry, so you can benchmark your business, learn more about what is driving our industry and where it is heading.

### Episode: Renewable fuels are still powering ahead. Are you on track?

Take a tour across the landscape of renewable fuels to discover the significant recent developments. [Listen to this episode here.](#)

## Fueling the Future of Transport

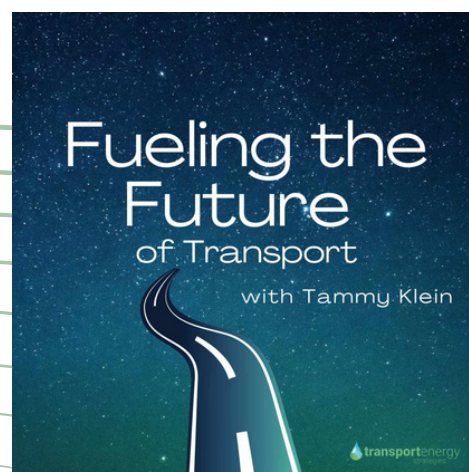
Fueling the Future of Transport explores sustainable solutions in transport energy to mitigate climate change with top global experts in the field. This bi-weekly show is hosted by Tammy Klein, founder and CEO of Transport Energy Strategies. [Listen to the podcast here.](#)

### Episode: Chevron - The Future Is Lower Carbon Energy

In this episode, Kaustav Sinha, Chevron's Director of Strategic Partnerships, discusses the recent success of a road trip, sheds light on the development of a renewable gasoline blend and explains how this blend aligns with Chevron's "portfolio approach" to achieving decarbonization. Chevron and Toyota collaborated on a road trip in the southeastern United States to showcase a new gasoline blend with over 50% renewable content. Representatives from both companies drove a Toyota Tundra, RAV4, and Camry to demonstrate this fuel, which has been found to be more than 40% less carbon intensive than traditional gasoline over its lifecycle. The road trip provided an opportunity for engagement with policymakers and consumers alike. [Listen to this episode here.](#)



## TOPSOE



# REPORTS 2023



## Biofuels in Canada 2023

Tracking biofuel consumption, feedstocks and avoided greenhouse gas emissions

### Biofuels in Canada 2023

There are many policies designed to increase the consumption of renewable and low-carbon fuels in Canada, and thus reduce transportation greenhouse gas (GHG) emissions. However, there is no detailed and comprehensive data source characterizing the impact of these policies. As such, Advanced Biofuels Canada again engaged Navius Research to fill this information gap by updating the “Biofuels in Canada” report that has been released annually since 2016. [Report here.](#)



### Fuelling Change: An Update to our Driving to 2050 Vision

Three years ago, the Canadian Fuels Association released Driving to 2050, their vision for decarbonizing the transportation sector in support of Canada’s goal of Net Zero by 2050. Since that time, they have put words into action with member projects from coast to coast spanning the full range of decarbonization pathways, including biofuels, hydrogen, carbon capture utilization and storage (CCUS) and electrification. Many of these projects are featured in this year’s update. [Details here.](#)

### Clean Growth Hub Newsletter

The newsletter provides updates on Canada's government initiatives and investments in clean technologies, sustainable solutions, and the transition to a clean growth economy.

- [Clean Growth Hub Newsletter: Issue 20](#), December 2023
- [Clean Growth Hub Newsletter: Issue 19](#), September 2023
- [Clean Growth Hub Newsletter: Issue 18](#), June 2023
- [Clean Growth Hub Newsletter: Issue 17](#), March 2023



## Annual Report 2022



### Key Findings by FutureMetrics: 2023 Wood Pellet Markets Outlook

William Strauss from FutureMetrics shared key findings from the 2023 Wood Pellet Market Outlook to provide some insights on dynamics shaping the market outlook for trade in wood pellets, including the challenges of high wood costs, and the Russian invasion’s impact on the global wood and energy sectors. [Details here.](#)

### IEA Bioenergy Publishes Annual Report 2022

Annual Report 2022, featuring a summary from the Executive Committee and detailed progress on each Task, includes the summary of a special feature article ‘Material and Energy Valorization of Waste as Part of a Circular Model’ prepared by Task 36 and more. [Details here.](#)



# MEET THE TEAM

ON BEHALF OF BCBN, WE THANK ALL OUR PARTNERS  
AND STAKEHOLDERS FOR A WONDERFUL 2023. WE  
LOOK FORWARD TO A PROSPEROUS 2024.

## BOARD OF DIRECTORS



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