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**POWERFUELS**

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German Energy Agency

## **DIGITAL WORKSHOP**

# **POWERFUELS IN NORTH AMERICA**

Status quo and the way forward towards a global green hydrogen economy

**DATE: MAY 5, 2021**

ONLINE ZOOM CONFERENCE

ORGANISED BY



Global Alliance  
**POWERFUELS**

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## Towards a Market Ramp-up of Powerfuels in North America and Europe

Renewable hydrogen-based liquid and gaseous **powerfuels** are an important building block of our future energy system. They not only enable sector coupling but also allow for deep de-fossilisation in sectors in which direct electrification using renewable energy is not possible or economical.

North America transitioned from a net energy-importing region to a net exporter of energy within the last decade. While this shift was mainly based on the increased production of fossil fuels, the largely untapped potential for renewable energy production is gaining more attention. With the combination of favourable conditions for renewable energy generation, a long history of leading innovations in energy, and a strong political movement to reach climate neutrality, the potential for the development of a world-leading powerfuels industry is evident.

In building up hydrogen production capacities and infrastructure, so-called 'hydrogen hubs' will play a key role. As one flagship region, Québec constitutes a frontrunner in the development of hydrogen hubs. With the abundance of low-cost hydroelectric power and an outstanding, already existing hydrogen industry, Quebec has all prerequisites to become a leading hydrogen hub. Remarkable projects are already underway: The world's largest PEM electrolyser (20 MW) was recently put into operation, while an 88 MW electrolyser with a coupled biofuel plant was announced for 2023.

As these examples highlight, North America has an eminent potential for advancing the ramp-up of a global powerfuels market, offering many opportunities for global exchange and cooperation.



The **Global Alliance Powerfuels**, initiated by the German Energy Agency (dena) together with 16 member organisations, supports this goal by:

1. Raising awareness and acceptance of powerfuels as a missing link to reaching global climate targets;
2. Supporting the enhancement of regulatory frameworks with a first focus on Europe as a demand region;
3. Stimulating project development to globally increase production capacities on an industrial scale, thus increasing cost competitiveness with fossil fuels.

In light of these goals, our workshop aims at fostering the mutual understanding of market barriers that powerfuels projects currently still face as well as of potential benefits of cooperation between North American and European stakeholders in the field of green hydrogen and powerfuels.

With this invitation, I would like to offer you the possibility to participate in this event as a proven expert for powerfuels technologies free of charge.

Thank you, we look forward to a fruitful dialogue with you!

A handwritten signature in black ink, appearing to read 'Andreas Kuhlmann'. The script is fluid and cursive, with a long horizontal flourish at the end.

Andreas Kuhlmann

Chief Executive, German Energy Agency

## Agenda

Berlin	Los Angeles	Québec	<b>Workshop Opening</b> Introduction to the workshop	
5:00 pm	8:00 am	11:00 am	<b>Andreas Kuhlmann</b> , CEO, German Energy Agency	
5:10 pm	8:10 am	11:10 am	<b>Keynotes   Topic:</b> Policies and regulation supporting powerfuels in North America <ul style="list-style-type: none"> <li><b>Mathieu Payeur</b>, Director Energy Strategies, Ministère de l'énergie et des ressources naturelles Québec</li> <li><b>Janice Lin</b>, Founder and President, Green Hydrogen Coalition</li> </ul>	
5:40 pm	8:40 am	11:40 am	<b>Panel   Powerfuels Projects in North America and Europe</b>  <u>Speakers</u> <ul style="list-style-type: none"> <li><b>Jean Paquin</b>, President and CEO, SAF+ Consortium</li> <li><b>Anna Stukas</b>, VP Business Development, Carbon Engineering</li> <li><b>Chris Norris</b>, Director Business Development, Siemens Energy Canada</li> <li><b>Dr. Tahmid Mizan</b>, Manager, Global Strategy &amp; Regulatory Affairs, ExxonMobil Fuels &amp; Lubricants Company</li> </ul> <u>Moderation:</u> <b>Kilian Crone</b> , Team Lead, Global Alliance Powerfuels, dena	
6:20 pm	9:20 am	12:20 pm	<b>Break</b>	
6:25 am	9:25 am	12:25 pm	<b>Breakout Sessions:</b> Expert input presentations followed by discussion in small groups	
			<b>1. Domestic North American production potential for green hydrogen and powerfuels</b>  <u>Speaker:</u> <b>Eric D. Larson, PhD</b> , Head, Energy Systems Analysis Group, Andlinger Center for Energy and the Environment, Princeton University	<b>2. Policy and technology drivers for powerfuels demand across sectors</b>  <u>Speaker:</u> <b>Gabriel Durany</b> , CEO of Quebec's Association for the Production of Renewable Energy (AQPER) <b>Melanie Davidson</b> , Senior Director, Business Development & Marketing, Strategen
			<b>3. How politics and low prices of fossil fuels influence the market development of powerfuels in North America</b>  <u>Speaker:</u> <b>Professor Jack Brouwer</b> , Director of the Advanced Power and Energy Program, University of California, Irvine	<b>4. International sustainability criteria and certification for green hydrogen</b>  <u>Speakers:</u> <b>Professor Pierre Bénard</b> , Director of the Hydrogen Research Institute, Université du Québec à Trois-Rivières <b>Pascale Lepage</b> and <b>Alexandrine Huot</b> , Bureau de normalisation du Québec (BNQ)
7:15 pm	10:15 am	1:15 pm	<b>Summary of the Breakout Sessions, Q&amp;A</b> Team Global Alliance Powerfuels, dena	
7:25 pm	10:25 am	1:25 pm	<b>Closing Remarks</b> <b>Kilian Crone</b> , Team Lead, Global Alliance Powerfuels, dena	
7:30 pm	10:30 am	1:30 pm	<b>End of Workshop</b>	

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