









Thermal Decarbonization Across Industries

Accelerate sustainable fuels for industrial clean heat solutions

September 8, 2022



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Accelerate sustainable fuels for industrial clean heat solutions

Hybrid event

via Zoom and in-person at The Reverie Saigon Hotel, Times Square Building, Ho Chi Minh City, Vietnam

September 8, 2022 9:00 - 11:00 ICT

Hosted by

Clean Energy Investment Accelerator (CEIA) and The Mekong Sustainable Manufacturing Alliance (The Alliance)

Event Summary

On September 8th, the workshop took place on Zoom and at the Saigon Reverie Hotel, welcomed 20 in-person participants and more than 60 virtual audiences to discuss available options and clean solutions for the industries in the thermal decarbonization using sustainable fuels with presentations from 4 speakers coming from National Renewable Energy Laboratory (NREL), corporates such Viet Pan Pacific, solution providers Trau Viet and consulting firms Coral Future.

A recording of the event is available <u>HERE.</u> All speaker presentation files are available <u>HERE.</u>



Messages from Organizers



Dr. Michael Boyd

Senior Energy Technical Advisor

USAID Regional Development Mission for Asia (RDMA)

"Clean energy represents challenges but also opportunities. Government can not tackle energy transition alone and could be sorted out with the participation of the private sector, which plays a critical role in developing and decarbonizing the regional power system. Intensive engagement with the private sector to realize the shared goals continues to be home of the USG assistance approach, both The Alliance and CEIA, who are the host of the event, helping accelerate the SEA energy transition. USAID Corporate Clean Energy Alliance (CCEA) works with business leaders and associations, host governments, and partners to facilitate the rapid deployment of today's clean energy technologies and innovative business models. Working together, CCEA will help to identify, inform, and implement clean energy solutions and policies that drive businesses while protecting the environment and strengthening regional energy security."



Dr. Hang Dao Co-lead

Clean Energy Investment Accelerator Vietnam

"Globally, industrial heat accounts for two-thirds of all industrial energy demand. Therefore, meeting the industrial clean heat demand plays a vital role in making energy transition happen in a more sustainable pathway for Vietnam and the Southeast Asia region. From understanding the opportunities along with challenges to taking action in implementing thermal decarbonization would need not only strong commitment from the private sector but also a concerted effort of multiple stakeholders from financial institutions to policy incentive mechanisms. By that, we could create a level playing field to make clean heat solutions accessible for a wide range of energy users."



Session Highlights



Sustainable fuel common priorities and challenges

Ngoc Vo Thi My, Institute for Sustainable Communities (ISC)

Brands and manufacturers are facing common challenges in sustainable fuel application. Such challenges include:

- Lack of industry-level common practical definition of sustainable biomass in the context of Cambodia, Thailand, and Vietnam.
- Competing demand for biomass supply from other sectors with higher volume.
- Limited understanding of supply stability, sustainability, and price of biomass among brands and factories.
- Limited awareness of relevant technologies to transition to biomass.
- Insufficient knowledge of local context to strategically decide natural gas vs. non-fossil fuel options.

The common challenges of the clean energy transition create a high need for collaboration among the brands and relevant stakeholders to accelerate the progress. These include industry-level collaboration on the sustainability definition of biomass feedstock in the Mekong region context, aggregation of biomass demand from factories across different brands for higher negotiation power and better terms with biomass suppliers, and industry-level regional dialogues to exchange knowledge and best practices among factories and brands on topics related to clean heat solutions technologies and alternatives.

Available solutions for renewable industrial heat



Dr. Colin McMillan, Industrial Systems and Fuels Group, NREL

There are multiple alternative process heating technologies available for renewable industrial heat. Different heat technologies are discussed (e.g., electrotechnologies, solar thermal, and biomass; energy storage needs) and a wide variety of applications and end-users and therefore, there is a need to adapt (configure) the technologies to the unique needs of users in its scale and demand for temperature ranges. Dr. Colin McMillan is happy to answer any related questions via: Colin.McMillan@nrel.gov

SESSION HIGHLIGHTS



Best practices from Corporate Users

Mr. Ngo Quoc Khanh, ESG Manager, Viet Pan Pacific

Sustainable biomass usage is one of the solutions to reduce GHG in industrial heat usage. According to Viet Pan Pacific as a large industrial energy user, the company has set a target to phase out its coal boilers in 2022 and switching from coal-based to biomass boilers comes with greater benefits. The advantages of the biomass-based boilers are well availability from various fuel sources, less emission, cost-effective and high heat values. However, as biomass also depends on the local weather, this is an issue that needs to be addressed to maintain the stable supply of the fuels.



Carbon Credits and RECs from the use of renewable biomass

Mr. Santosh Singh, CEO and Founder, Coral Future

When biomass is used sustainably to produce electricity, RECs can be claimed. RECs help companies reduce their Scope 2 emissions, and RECs sales provide additional revenues to the project owners. Meanwhile, Carbon Credits mobilize additional finance to project developers, improving project viability and scale. Typical project types for Carbon Credits include thermal energy generation, electricity generation, and co-generation. Mr. Santosh Singh is available to reach out via: santosh@coralfuture.com



Perspective from a solution provider

Mr. Nguyen Quoc Dat, Director, Trau Viet

Many companies from different sectors in Vietnam (paper, textile, food processing, etc.) have replaced fossil-based boilers with biomass boilers. One typical available model for these companies to utilize biomass-based heat is via the OPEX model provided by experienced, certified heat suppliers and boiler service providers, which resulted in a cost-saving of up to 30-40% while being friendly to the environment and GHG reduction.

Session Highlights

Panel Discussion

With the active participation of representatives from the private sector. For instance, Sanofi shared the progress of their current project, "Rice is the new green", helping participants to understand the potential for biomass transition.

- The discussion further explored the need for data on optimal technological solutions and associated infrastructural planning, underpinned by strong policy support are among potential solutions to achieve synergy among sectors in Vietnam and drive its energy transition.
- Due to the past months' geopolitical uncertainties, biomass remains a vital asset, with its prices remaining relatively stable compared to other commodities. However, swift implementation of biomass projects must be carefully planned to reassure long-term perspectives and to provide future affordable pricing.
- There is a consensus among stakeholders that a robust heat decarbonization policy is required in Southeast Asia. To get heat decarbonization moving in the correct direction, several strategies must be implemented including clear leadership, consumer motivation and education, local demonstration programs, financial support, and unlocking demandside flexibility.

Picture Source: www.canva.com

Organization Background

Clean Energy Investment Accelerator (CEIA)

www.cleanenergyinvest.org



The CEIA is an innovative public-private partnership jointly led by Allotrope Partners, World Resources Institute, and the U.S. National Renewable Energy Laboratory. Through targeted engagement in key countries, the CEIA brings together large commercial and industrial users to demonstrate innovative renewable energy purchasing models and strengthen policy frameworks. The CEIA is supported by the U.S. Department of State, the Partnership for Global Green Growth Goals by 2030, and other partners.



Allotrope Partners is an international clean energy advisory firm specializing in emerging markets and technologies.



World Resources Institute (WRI) is a global research organization working at the nexus of environment, economic opportunity, and human well-being.



National Renewable Energy Laboratory (NREL) is a U.S. government-funded research laboratory focused on developing and commercializing clean energy technologies.

The CEIA is supported by a range of public, private, and philanthropic partners, including:







Organization Background

The Mekong Sustainable Manufacturing Alliance (The Alliance)

https://www.sustain.org



The Mekong Sustainable Manufacturing Alliance (The Alliance) implemented by Institute for Sustainable Community (ISC), supported by the USAID Regional Development Mission for Asia, uses a market-driven approach to strengthen sustainable and competitive manufacturing by engaging the private sector, catalyzing market forces, and advancing innovative regional initiatives that will increase the adoption of Environmental, Social, and Governance (ESG) standards. The Alliance also supports USAID's Corporate Clean Energy Alliance (CCEA), a partnership with business leaders facilitating the rapid deployment of state-of-the-art clean energy technologies and developing viable business models and policy frameworks that drive the transition to low-carbon economic growth across Southeast Asia.

The Mekong Sustainable Manufacturing Alliance (The Alliance) is supported by the USAID Regional Development Mission for Asia.













Contact US

The CEIA and The Alliance team are pleased to continue working alongside industry stakeholders to increase and improve the pathways for corporate clean energy use pathways in Vietnam. For additional information, please contact the CEIA Vietnam team via Tung Ho (tah@allotropepartners.com) and Hang Dao (hangdao@cleanenergyinvest.org), and The Alliance team via Natcha Tulyasuwan (ntulyasuwan@sustain.org) or msma@sustain.org