



## SUMMARY NOTES

### **EEAP WEBINAR 15 Evaluation of Energy Programs and Policies in the Asia- Insights from Indonesia and China**

On February 7, 2025, the Energy Evaluation Asia Pacific (EEAP) hosted its 15th webinar on the **Evaluation of Energy Programs and Policies in Asia**, featuring insights from China and Indonesia.

The session welcomed two distinguished speakers:

- **Brury Bangun**, Senior Urban Planner, Manado City Government, Indonesia
- **Ma Dingping**, Secretary General, Chongqing Renewable Energy Society, China

Brury shared key findings from an evaluation of a groundbreaking project in Manado City, Indonesia, where biodigesters were used to convert organic waste into renewable energy—addressing both waste management challenges and energy needs. Meanwhile, Dingping highlighted experiences from Chongqing, China, emphasizing the role of green manufacturing and energy efficiency in industrial and public sectors.

The discussion provided valuable insights into how these initiatives can inform and inspire sustainable energy practices worldwide.

This document summarizes the key discussion points from the webinar.

### Webinar Agenda

<b>Time (Bankok Time)</b>	<b>Sessions/Speakers</b>
11:00-11:05 AM	<b>Welcome Remarks &amp; Context Setting</b>  <i>Edward Vine, Affiliate, Lawrence Berkeley National Laboratory (LBNL) and Steering Committee Member, Energy Evaluation Asia Pacific (EEAP)</i>
11:05-11:40 AM	<b>Presenters</b>  <b>1. Brury Bangun</b> , Senior Urban Planner, Manado City Government, Indonesia

	<p><b>“Energy Project Evaluation for underprivileged community in Bunaken Island, Manado.”</b></p> <p><b>2. Ma Dingping</b>, Secretary General of Chongqing Renewable Energy Society, China</p> <p><b>“China's green factory construction program promoting energy efficiency”</b></p>
11:40- 11:55 AM	<p><b>Moderated Audience Q&amp;A</b></p> <p>Moderated by <b>Edward Vine</b>, Affiliate, Lawrence Berkeley National Laboratory (LBNL) and Steering Committee Member, Energy Evaluation Asia Pacific (EEAP)</p>
12:00 AM	<p><b>Concluding Comments &amp; Vote of thanks</b></p> <p><b>Edward Vine</b> , Affiliate, Lawrence Berkeley National Laboratory (LBNL) and Steering Committee Member, Energy Evaluation Asia Pacific (EEAP)</p>

## Introduction and Context Setting

Edward Vine, Affiliate, Lawrence Berkeley National Laboratory (LBNL) and Steering Committee Member, Energy Evaluation Asia Pacific (EEAP)



Ed Vine, a member of the Steering Committee for EEAP, greeted the participants and speakers, introduced EEAP and provided a context of the webinar.

### **Introduction to Energy Evaluation Asia Pacific (EEAP)**

Ed introduced EEAP to the participants. Established as a non-profit organization in 2018, and modelled after IEPEC (US, since 1983) and IEPPEC (Europe, since 2010), EEAP is focused on expanding the practice of objective evaluation in the Asia Pacific region. EEAP's mission is to lead in expanding evaluation practices, building capacity, and understanding the impact of energy efficiency and renewable energy programs and policies, aiming to provide a strong evidence basis for continuous improvement in these areas.

EEAP fosters exchange and interaction among evaluators, NGOs, government agencies, and academics to promote the value of energy evaluation and capacity building. EEAP offers a database of resources on best practices, holds webinars on various topics, and organizes international events and conferences, particularly in relation to the Sustainable Development Goals (SDGs). EEAP brings stakeholders together to support data-driven decision-making in the energy sector. One of its main objectives is capacity building, especially in the rapidly growing Asia Pacific region.

Ed also informed the audience that EEAP is planning to have a conference in July in Indonesia. The details will be shared on EEAP's website and social media once the details are confirmed.

Ed introduced the speakers and the topic they talked about.

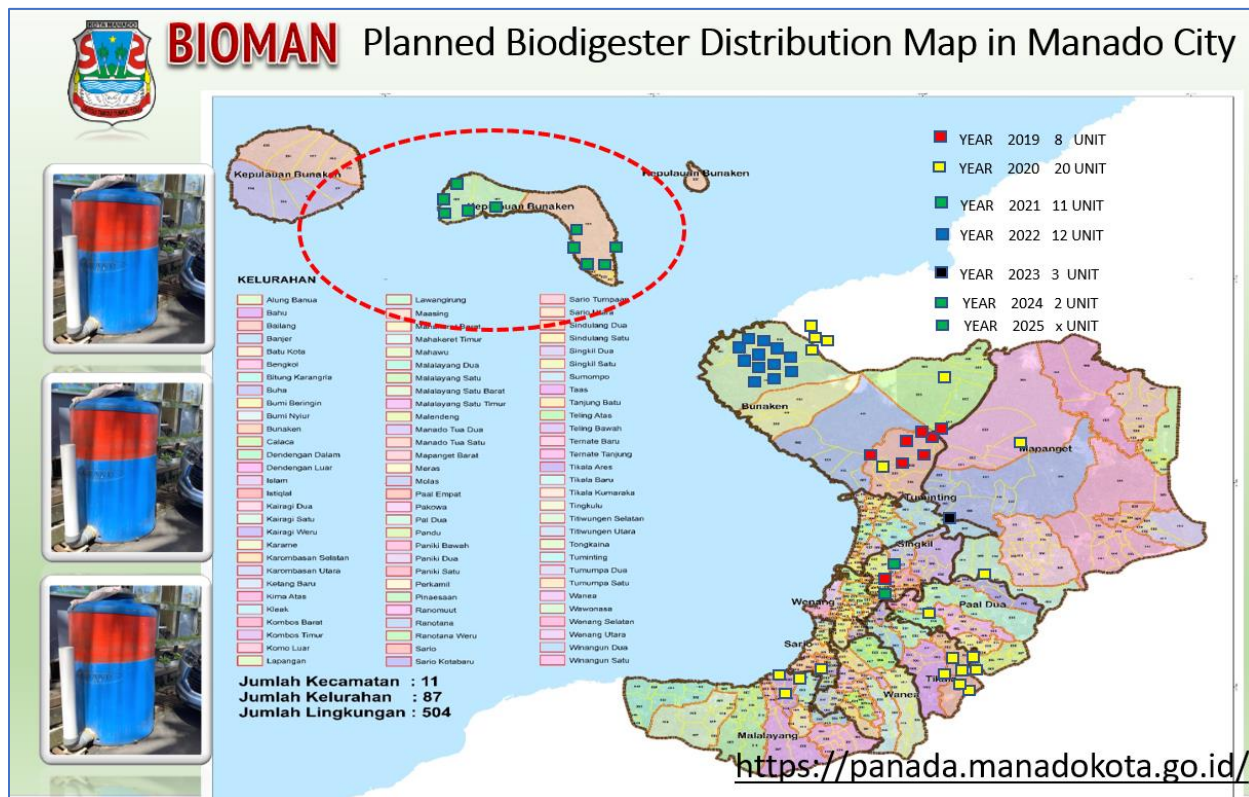
### Presentation by Speakers

#### **Energy Project Evaluation for underprivileged community in Bunaken Island, Manado**

Brury Bangun, Senior Urban Planner, Manado City Government, Indonesia



Brury presented on the evaluation of an energy project aimed at underprivileged communities in Bunaken Island, Manado. The project, initially focused on addressing waste management issues in Manado City, involves the use of biodigesters to convert organic waste into methane, which can be used as a renewable energy source. This initiative aligns with Indonesia's national and provincial renewable energy targets, aiming for 25% and 38% renewable energy usage by 2025, respectively. Despite these ambitious goals, the municipality level has yet to fully implement these targets.



The presentation highlighted the significant waste problem in Manado City, with 106,000 tons of waste produced annually, half of which is organic. The biodigesters, which have been installed over the past five years, aim to tackle this issue by converting organic waste into biogas, thereby reducing waste and providing an alternative to fossil fuels. However, the project has faced challenges, including limited raw materials and the complexity of operating the biodigesters, which has hindered their daily use.

Survey results from the project indicated that while the biodigesters have the potential to reduce LPG consumption and waste generation, their effectiveness is limited by the lack of raw materials and technical support. Many respondents were not familiar with the technology, and the biogas production was often insufficient for daily household use. Additionally, there was a need for more practical knowledge and government support to maximize the use of biodigesters.

Brury concluded by emphasizing the need to distribute biodigesters to those who genuinely need them, provide practical training, and offer incentives to encourage their use. The project plans to expand to Bunaken Island, where the inhabitants, primarily fishermen and small traders, could benefit more from this technology due to their reliance on expensive LPG. The presentation underscored the importance of continuous support and education to ensure the success and sustainability of such renewable energy projects.


### Main Takeaways

- **Targeted Distribution and Training:** It's crucial to distribute biodigesters to those who genuinely need them and provide practical training on their use. Many recipients were unfamiliar with the technology, which limited its effectiveness.
- **Continuous Support and Incentives:** Ongoing government support and incentives are essential to encourage the use of biodigesters. Without sufficient raw materials and technical assistance, the project struggled to achieve its full potential.

### China's green factory construction program promoting energy efficiency Ma Dingping, Secretary General of Chongqing Renewable Energy Society, China



Dingping Ma's presentation focused on energy efficiency initiatives in Chongqing, China, highlighting the city's industrial and tourism sectors. Chongqing, known for its manufacturing of motors and cars, has been attracting international visitors to discuss Chinese products. Dingping emphasized the importance of energy efficiency in the industrial sector, noting that China's approach to energy management differs from other countries, with significant policies and practices at both national and local levels. He discussed the concept of green manufacturing, which includes green factories and green supply chains. These initiatives aim to enhance energy efficiency and environmental sustainability in industrial production. Dingping highlighted the benefits of green factories, which not only improve energy efficiency but also have positive environmental impacts. He suggested that other Asian countries could learn from China's experience in green manufacturing to enhance their own industrial practices.


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## 2.China's Energy Efficiency Management Framework

• CHINA'S ENERGY EFFICIENCY MANAGEMENT INVOLVES A STRUCTURED PROCESS FROM CENTRAL POLICY FORMULATION TO LOCAL EXECUTION AND INDUSTRY ADOPTION. KEY AREAS INCLUDE:

<p>• <b>Industrial Sector:</b></p> <ul style="list-style-type: none"> <li>➢ Technological improvements like waste heat recovery and optimized motor systems.</li> <li>➢ Green manufacturing systems (green factories, parks, and supply chains).</li> </ul> <p>• <b>Public Institutions:</b></p> <ul style="list-style-type: none"> <li>➢ Creation of energy-saving demonstration units (e.g., government buildings).</li> <li>➢ Promotion of energy-saving awareness and training.</li> </ul>	<p>• <b>Buildings:</b></p> <ul style="list-style-type: none"> <li>➢ Green building standards (e.g., LEED China).</li> <li>➢ Retrofitting of existing buildings for energy efficiency (public buildings).</li> </ul> <p>• <b>Transport:</b></p> <ul style="list-style-type: none"> <li>➢ New energy vehicles (electric buses, charging infrastructure).</li> <li>➢ Smart transportation systems (e.g., Chongqing's intelligent transport pilot).</li> <li>➢ Green logistics (optimization of multimodal transport)</li> </ul>
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These initiatives aim to enhance energy efficiency and environmental sustainability in industrial production. Dingping highlighted the benefits of green factories, which not only improve energy efficiency but also have positive environmental impacts. He suggested that other Asian countries could learn from China's experience in green manufacturing to enhance their own industrial practices.

Dingping also touched on the importance of energy efficiency in public institutions such as universities and hospitals, which are significant energy consumers. He noted that managing energy use in these institutions is crucial, given their reliance on government funding. Additionally, he mentioned the role of electric vehicles (EVs) in improving energy efficiency in transportation, particularly in rural areas where access to electricity is limited and fuel costs are high.

Dingping also mentioned the current evaluation efforts for the different initiatives. In the industrial sector, energy audits focus on waste heat recovery and motor efficiency, aiming for over 70% of new motors and 80% of new transformers to be energy-efficient by 2025. While specific data for Chongqing's green energy adoption is limited, China leads globally in wind and solar capacity, contributing 16% to its electricity generation as of 2023. In the building sector, Chongqing has adopted LEED China standards, with China having nearly 2,600 LEED-certified projects by 2020. However, detailed long-term energy savings data for Chongqing is limited. Public institutions have established energy-saving demonstration projects in government buildings, though comprehensive performance data is lacking. In transport, Chongqing's intelligent transport pilot and electric bus deployment aim for sustainable urban mobility, but comprehensive impact assessments are needed to evaluate effectiveness.

In conclusion, Dingping stressed the need for international collaboration and knowledge sharing to advance energy efficiency. He encouraged visits to China to learn from its experiences and suggested that joint projects and training programs could be beneficial. He also highlighted the importance of continuous support and funding from international foundations to sustain energy efficiency initiatives.

#### **Main Takeaways:**

- **Importance of Green Manufacturing:** Implementing green manufacturing practices, such as green factories and green supply chains, significantly enhances energy efficiency and environmental sustainability in industrial production in China. Other countries can benefit from adopting these practices to improve their own industrial energy efficiency.
- **Value of International Collaboration:** Sharing knowledge and experiences internationally is crucial for advancing energy efficiency. Visits to China and joint projects can help other countries learn from China's successes and challenges, fostering global improvements in energy management.

## Presenters' Bio

### **Ma Dingping**

Ma Dingping is a Secretary General of Chongqing Renewable Energy Society and President of Chongqing Energy Research Society.

Ma Dingping has extensive experience in community management, government services, international collaboration, and enterprise cooperation, which have equipped him with strong coordination and resource mobilization skills. He is well-versed in Chinese policies and regulations and has a deep understanding of the demands in the energy efficiency and renewable energy sectors. His expertise spans project management, training in energy and low-carbon initiatives, policy and standards research in the clean energy field, and promoting advanced products used in clean energy applications. Ma Dingping holds several prestigious roles, including serving as an expert for the International Technology Cooperation Project under China's National Ministry of Science and Technology, a decision-making consultation expert in science and technology for the China Association for Science and Technology, and a procurement and bidding evaluation expert for electrical engineering, construction supervision, illumination, exhibition, and training for the People's Government of Chongqing Municipality. Additionally, he is an energy-saving project audit expert for the Chongqing Energy Saving Office, a science and technology consultation expert for the Chongqing Science and Technology Committee, a public institution energy-saving consultation expert for the Chongqing Government Offices Administration Bureau, and a building intelligence expert for the Chongqing Municipal Construction Committee.

### **Brury Bangun**

Brury Bangun works at Manado city government with a strong foundation in sustainable city development and over 12 years of experience in strategic planning and public infrastructure projects. He currently holds a position as Senior Urban Planner. Graduating with a degree in Urban and Environmental Planning from Griffith University, Brisbane, Australia, Bangun has been involved in numerous projects aimed at improving urban spaces, community facilities, and renewable energy utilizations. Known for a keen analytical eye and collaborative approach, Bangun has a track record of working closely with stakeholders to balance environmental considerations, economic growth, and social needs. Bangun has successfully led cross-functional teams, often employing data-driven solutions to tackle complex urban challenges. Passionate about sustainable urban development, Bangun is currently exploring opportunities to pursue a Ph.D. abroad, focusing on biogas usage for remote households.

## EEAP's Upcoming Events

### EEAP Conference 2025

Theme: "Building an evidence-based path to net zero energy transition and global sustainable development"

August 2025, Jakarta, Indonesia

For more details, please check EEAP's website and social media pages:

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