

Table of Contents



I	Company Overview
II	Industry Overview and Growth Potential
III	Company Core Competitive Advantages
IV	Financial Highlights
V	Key Takeaways

ACE's Key Strengths and Opportunities



1

Thailand's Leading Integrated Power Producer with Highest Growth Potential

- Largest and fast-growing Biomass Power Producer supported by PPA with PEA in Thailand
- No. 1 Renewable Power Producer in Thailand in terms of Equity MW Growth

2

World Megatrend

- "Electrification" Era
- Global & Thailand Commitment to Zero Carbon which implies the rise of renewable energy
- Biomass is one of the most reliable renewable energy that can replace the base load provided by conventional energy.
- ESG Business

3

Continuous Growth from Projects in the Pipeline and Future

- Power Plant's PPA with exceptional tariff rate
- Better technology which leads to higher efficiency and less feedstock / kWh
- Economy of Scale resulting in lower CAPEX, OPEX, and SG&A
- 28% share in the latest biomass power plant bidding

4

Efficient Operational Capabilities with Continuous Improvement

- Lower Feedstock and O&M cost which leads to higher margin
- Stronger creditworthiness which leads to lower financing cost
- Peer-to-Peer Electricity Trading which leads to additional electricity sales

5

Low Downside Risk

- Secured Demand & Cashflow (Long term Power Purchase Agreement with the Government)
- Proven Operational Excellence & Feedstock Management
- Our business model commits to the greater good and has a positive Total Societal Impact (TSI)

The logo for Absolute Clean Energy Public Company Limited, featuring the letters 'ACE' in a bold, green, sans-serif font.

ABSOLUTE CLEAN ENERGY
PUBLIC COMPANY LIMITED



ACE's Sustainability Journey





KRABI POWER PLANT

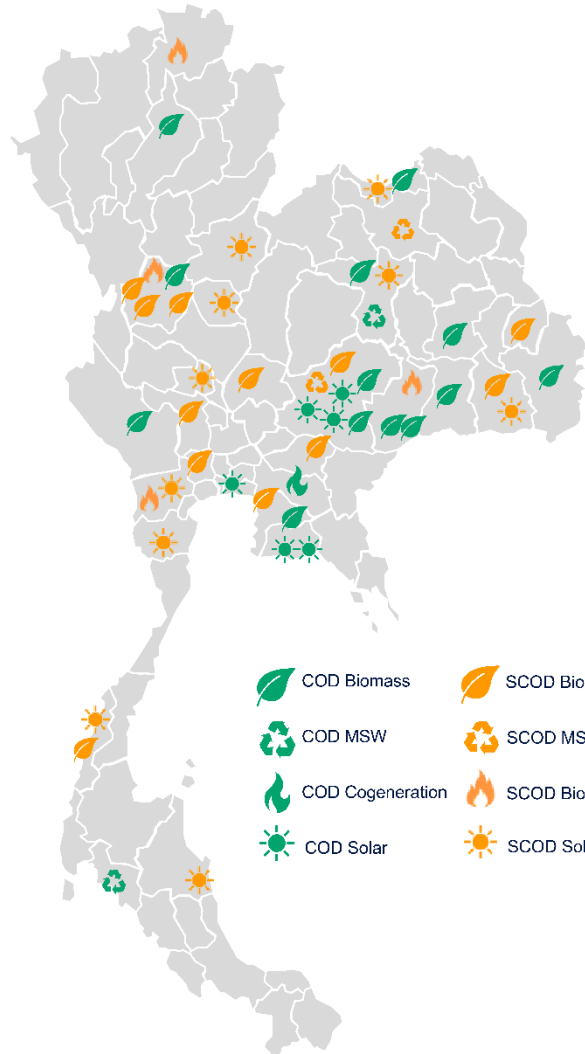
Sustainability is our journey, not just a destination

ACE is a leading renewable power producer



Total capacity > 602.29 mw

COD 23 projects and pipeline 66 projects



- COD Biomass
- COD MSW
- COD Cogeneration
- COD Solar
- SCOD Biomass
- SCOD MSW
- SCOD Biogas
- SCOD Solar



Biomass 27 projects
(COD 13 projects, pipeline 12 projects)



Solar 40 projects
(COD 6 projects, pipeline 34 projects)



MSW 4 projects
(COD 2 projects, pipeline 2 projects)



Biogas 18 projects
(Pipeline 18 projects)



Co-gen 1 project
(COD projects)

We originated from sustainability

ACE founder's vision

business opportunities inspired by responsibility and sustainability



Global warming from fossil fuels



Problem of agriculture residue waste



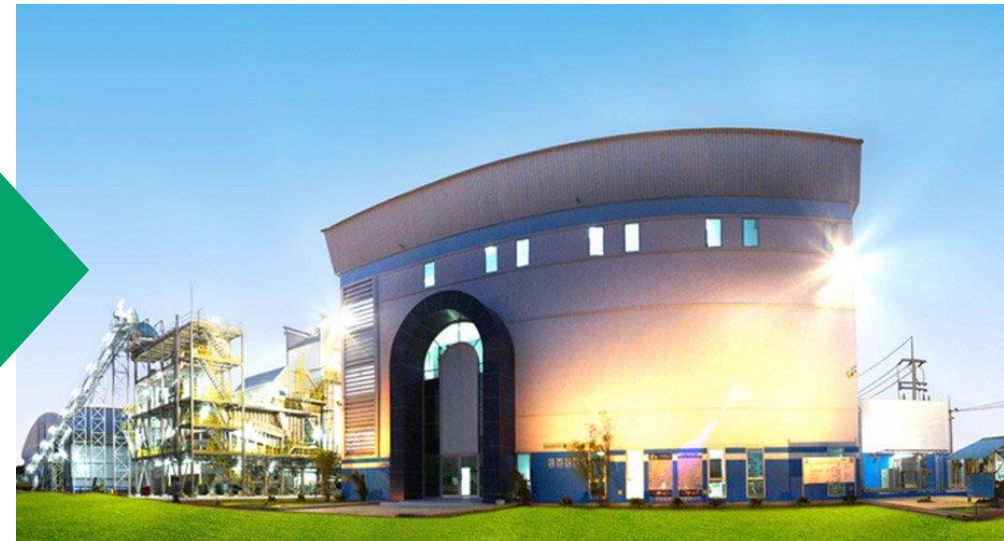
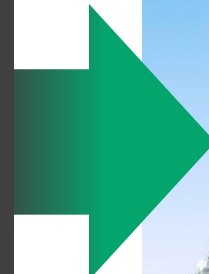
Low farmers income



Country's reliance on non-sustainable imported fossil fuels



Power generation's negative image



COD since 2012 : 1st ACE's biomass power plant
Ban Bueng power plant (9.9 mw)

What we believe?

Sustainability and Serving the Greater Good



How we do it?

Responsibility, Accountability, and Consistency

Our 3 core pillars to drive sustainability commitments

Environment and Climate



- **Eco-friendly business that helps solve climate change**
- **Utilize sustainable and renewable resources**

People and Social



- **Positive social impact**
 - Job creation, income generation, and family institution promotion
 - Spreading wealth
- **Create energy security at local, national, and global levels**
 1. Empower local and national energy self-reliance
 2. Enhance grid stability
 3. Reduce risk tied to dependence on large power plants (e.g. IPP)
 4. Maximize efficiency (Reduce loss in transmission)

Economic and Profit



- **Strong corporate governance and code of conduct**
- **Firm and sustainable growth**
- **Deliver benefits to stakeholders**
 - Farmers, suppliers, communities, lenders, shareholders, and the world

KHON KAEN POWER PLANT

How we act sustainably and nurture sustainability

“ Environment and Climate ”

Climate Risks and Impacts

Risks



- **Increase extreme weather**
 - Flood
 - Drought
 - Storm
- **Increased global temperature**
- **PM 2.5**

Impacts

1

Feedstock shortage and price fluctuation (-)

Mitigation plan will be explained later in Economic section

2

Climate regulation (+)

- Carbon tax
- Carbon footprint and carbon credit
- Enforcement of stringent PM 2.5 legal measures

Impact

No impact to biomass MSW and solar power plant because they are **carbon neutral**

Opportunities

Higher demand renewable energy and REC

Higher demand for carbon credits, and other carbon footprint reduction methods

Net-zero Strategy and Targets

Short-term

- 1 Expand renewable power plants to help reduce GHG emission**
- 2 Utilize resources efficiently in power plant operations**
 - Complete combustion
 - Efficient thermal energy utilization
 - Zero discharge
 - Water recycling

Long-term

- 3 Implement GHG removal projects**
 - Afforestation
 - Carbon capture & storage
- 4 Reach Net-zero by 2040, 10 years earlier than target**

**Net-Zero
by 2050**

Our Successful Projects (Short-term)

1 Renewable energy portfolio expansion

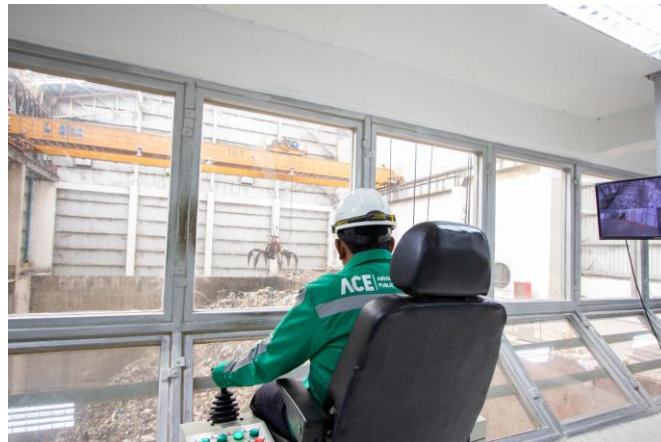
- Biomass → 12 projects (Total capacity 142.0 MW)
- Biogas → 18 projects (Total capacity 59 MW)
- Solar → 34 projects (Total capacity >124.82 MW)
- MSW → 2 projects (Total capacity 18.9 MW)

2 R&D to help improve combustion efficiency



Our Successful Projects (Short-term)

3 Zero discharge and water recycling



Leachate



MBR



UF

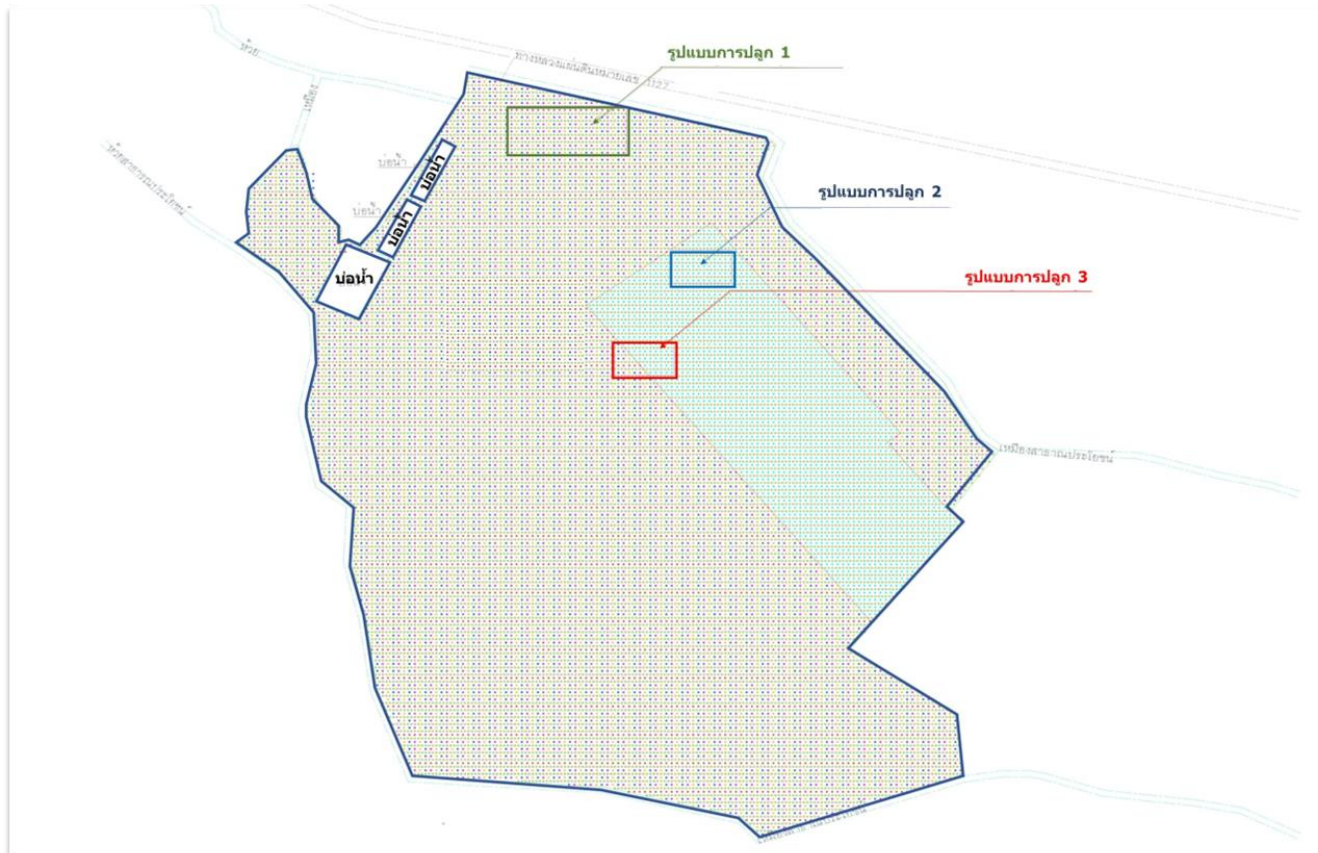


RO

Our Successful Projects (Long-term)

4 GHG Removal (Afforestation)

- Ban Tam, Phayao (201.6 Rais)



Our Successful Projects (Long-term)



Our Successful Projects (Long-term)



Our Successful Projects (Long-term)



BAN BUENG POWER PLANT

How we act sustainably and nurture sustainability

“Economic and Profit”

Challenge: Feedstocks availability and price fluctuation



Biomass



Biogas

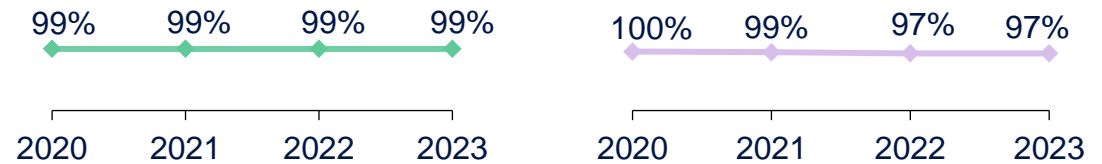
Business Targets and Results (Short-term)

Results

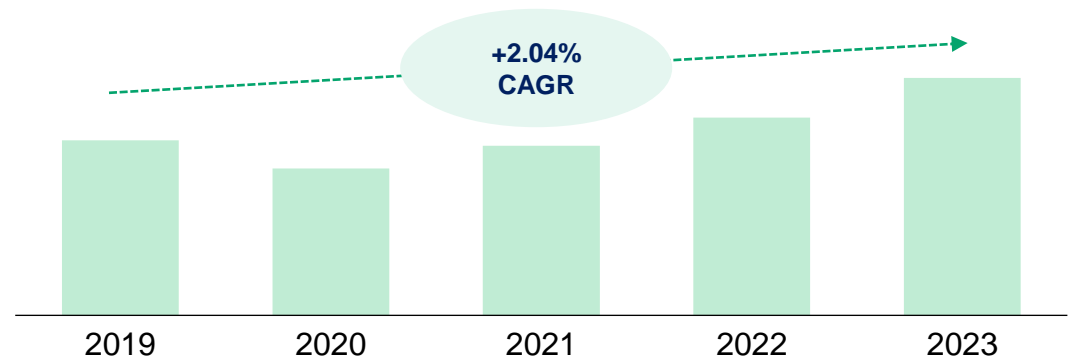
Short-term targets

- Feedstocks (biomass, MSW) are sufficient for full capacity operation
- Manage feedstocks cost increase to be less than 3.0% per year through operation efficiency

1. Export capacity factor (■ biomass ■ MSW)



2. Feedstocks prices (THB/kWh)



3. Sourcing new types of biomass fuels

Business Targets and Results (Long-term)

Long-term target: R&D to ensure long-term feedstocks security

R&D Fuel Crops and Fuel Trees



Business Targets and Results (Long-term)

Fuel Crops



Business Targets and Results (Long-term)

Fuel Trees





THOEN POWER PLANT

How we act sustainably and nurture sustainability

“People and Social”

Conducting business alongside improving the livelihoods and well being of farmers and local communities



Short-term



Increase farmer income through the purchase of agricultural residue

Long-term



Generate stable income for farmers through fuel crops and fuel trees long-term purchase agreement

Our Successful Projects

1

“ลดเผา รายได้เพิ่ม”



2

“ส่งเสริมการปลูกไม้ยูคาลิปตัส สร้างงาน สร้างรายได้ แก่ชุมชน”



Cumulative outcomes throughout our sustainability journey

Environment and Climate



People and Social



Economic and Profit



Environment and Climate Outcomes



- **Help reduce CO₂ emission (2012 - 2023)**
 - More than **3.3 millions tons CO₂**
- **Prevent agricultural burning (PM2.5) (2012 - 2023)**
 - More than **14.3 millions rais**
- **Prevent leachate from landfill (2016 - 2023)**
 - More than **172 million liters**

People and Social Outcomes



- **Farmers income generated (2012 - 2023)**
 - Income to farmers from feedstock purchase
>10,000 million THB

Employment generated (as of 2023)

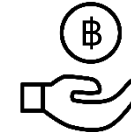
- More than **800 employments** across 30 provinces
(> 80% of local people employed)

Economic and Profit Outcomes

Revenue & net profits (2012 - 2023)



Revenue **45,209** million THB



Net profits **7,389** million THB

Recognition & index



Received the results of the corporate governance survey of listed companies for the year 2023 at “Excellent” level (5 stars) from Thai Institute of Directors Association (Thai IOD)



Awarded with ‘AA’ rating from SET ESG Ratings 2023 by the Stock Exchange of Thailand.



Listed in FTSE SET Micro Cap index and shariah index



TRIS Ratings Affirmed the Company Rating at “BBB+” with “Stable” Outlook



Achieves a perfect 100 score in the Annual General Meeting Assessment by Thai Investors Association



The Company has signed the Declaration of Intent to support the coalition with CAC (Collective Action Against Corruption) in reducing corruption.

Our CSR (Education)



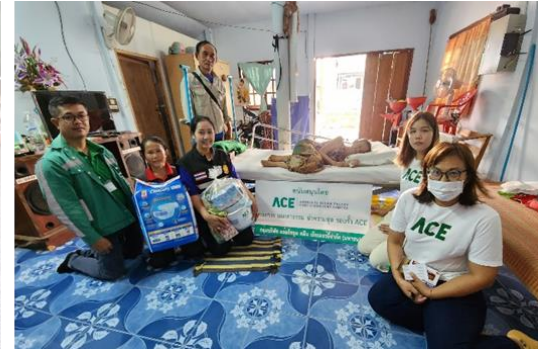
Our CSR (Community support during the COVID Crisis)



Our CSR (Community Services & Donations)



Our CSR (Community Services & Donations)



Our CSR (Community Services & Donations)



Our CSR (Community Services & Donations)



Power Plant Visits (1/9)



General Anupong Paojinda
(Minister of Interior)

Power Plant Visits (2/9)



Dr. Siri Jirapongphan
(Minister of Energy)

Energy Regulatory Commission (ERC)



Mr. Kraisri Kannasoot



Mr. Kurujit Nakornthap

International Recognition



H.E.Mrs.Kshenuka Dhireni Senewiratne
(The Ambassador of Sri Lanka)



Mohammad Tajul Islam
(Minister of Local Government
and Rural Development)

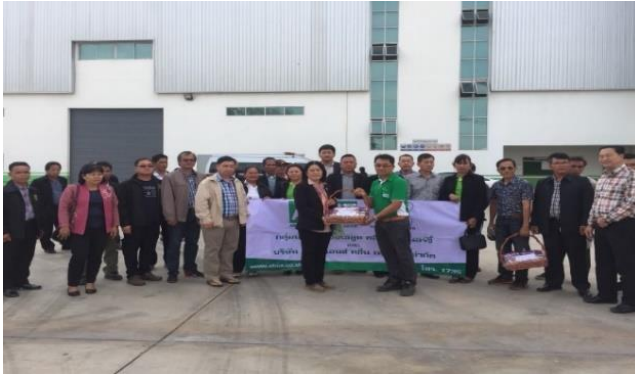


**Vice Presidential Delegation
of Indonesia**

Government Agencies and Departments



Local Administrative Organizations



Power Plant Visits (7/9)



Power Plant Visits (8/9)



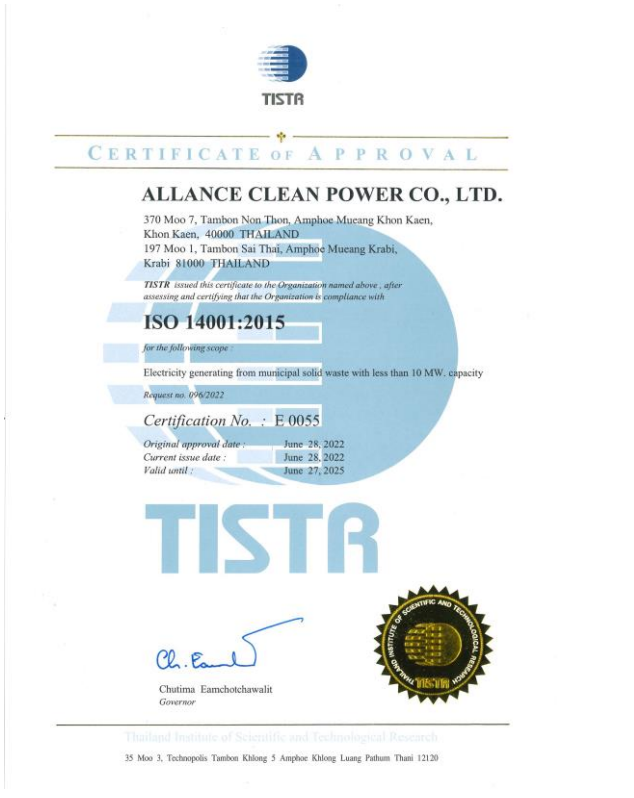
Power Plant Visits (9/9)



Awards & Recognitions (1/13)



Certified date: June 28, 2022

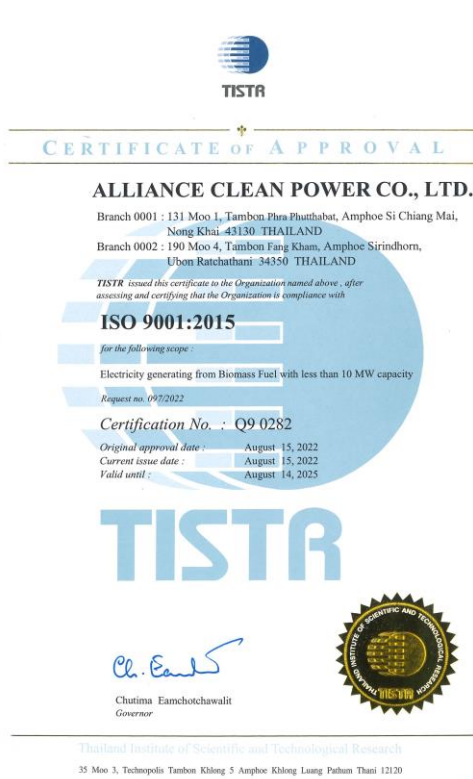


Certified date: June 28, 2022

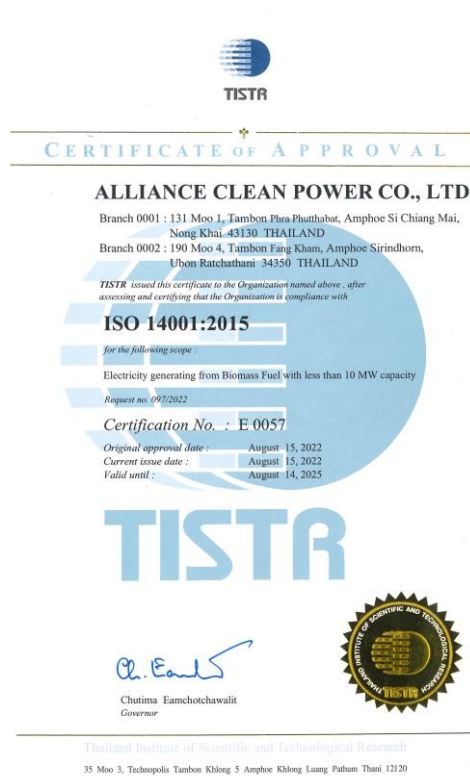


Certified date: June 28, 2022

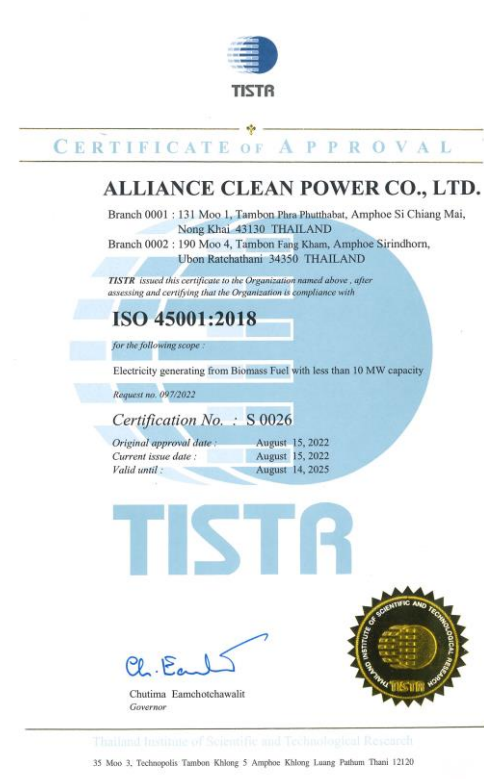
Awards & Recognitions (2/13)



Certified date: August 15, 2022

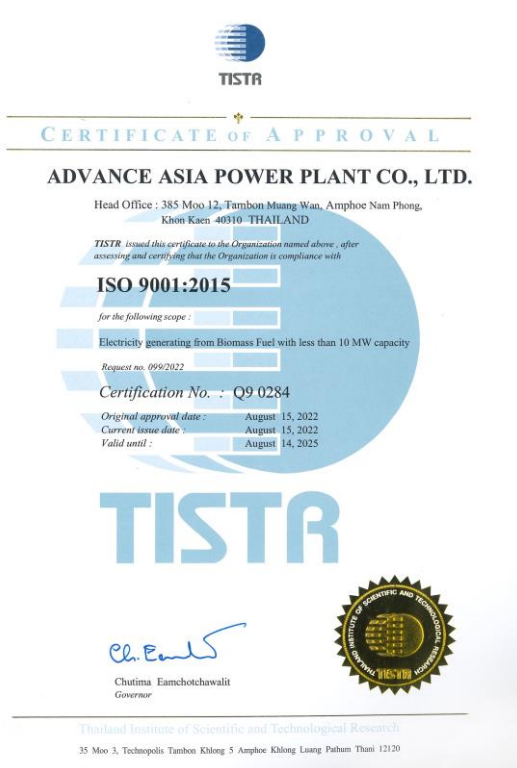


Certified date: August 15, 2022



Certified date: August 15, 2022

Awards & Recognitions (3/13)



Certified date: August 15, 2022

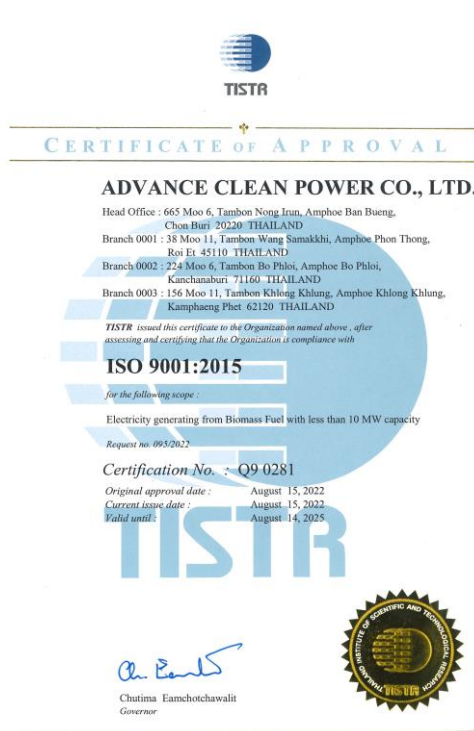


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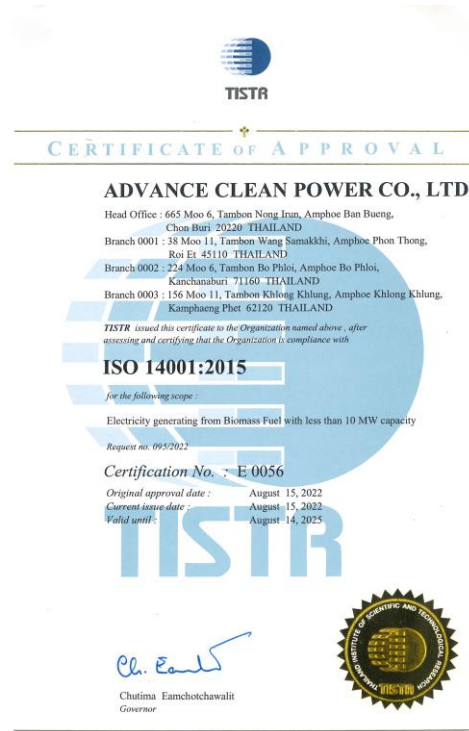


Certified date: August 15, 2022

Awards & Recognitions (4/13)



Certified date: August 15, 2022

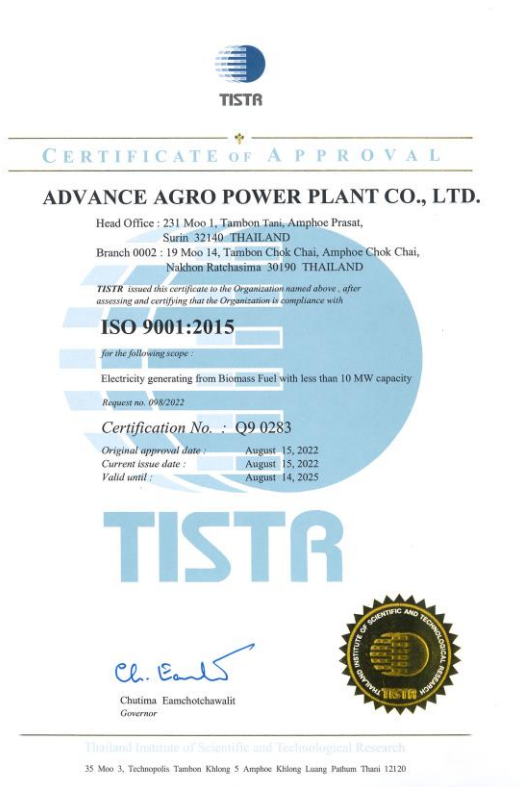


Certified date: August 15, 2022



Certified date: August 15, 2022

Awards & Recognitions (5/13)



Certified date: August 15, 2022

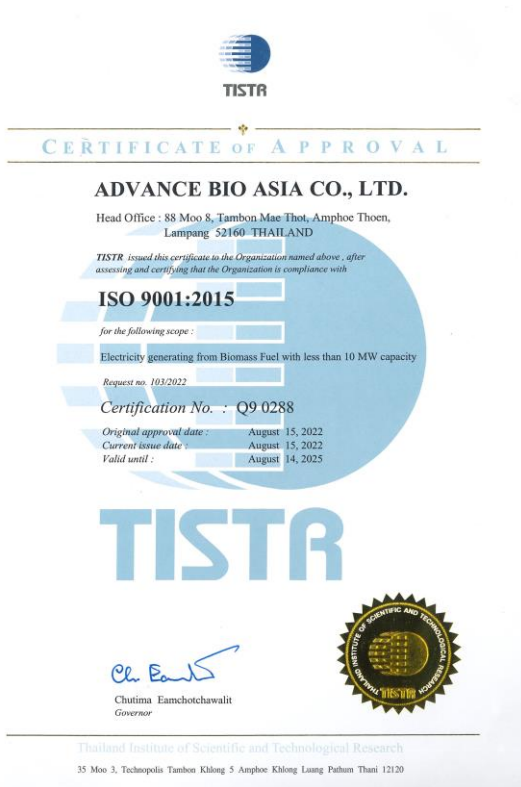


Certified date: August 15, 2022

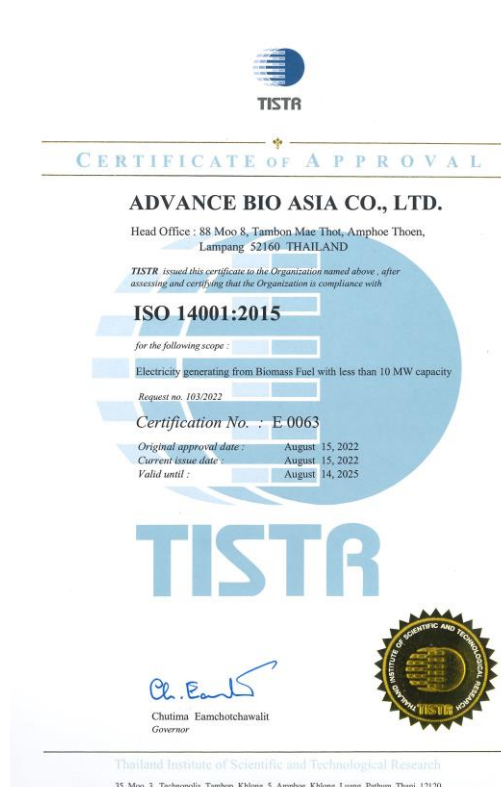


Certified date: August 15, 2022

Awards & Recognitions (6/13)



Certified date: August 15, 2022

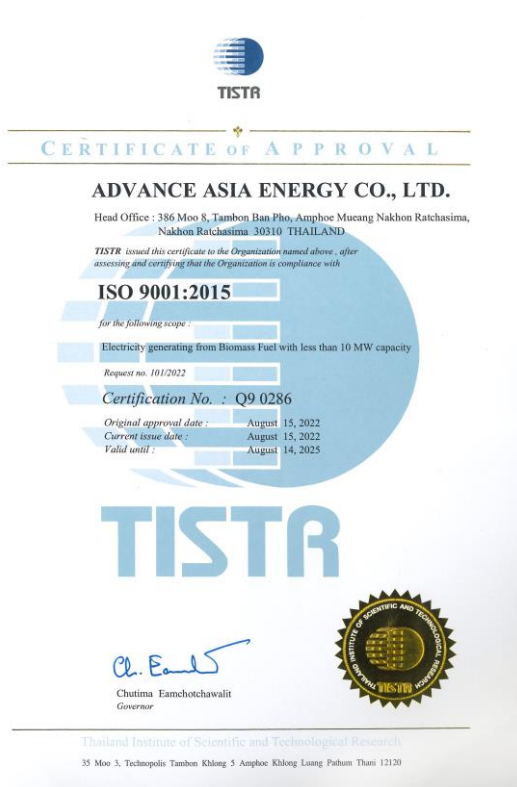


Certified date: August 15, 2022

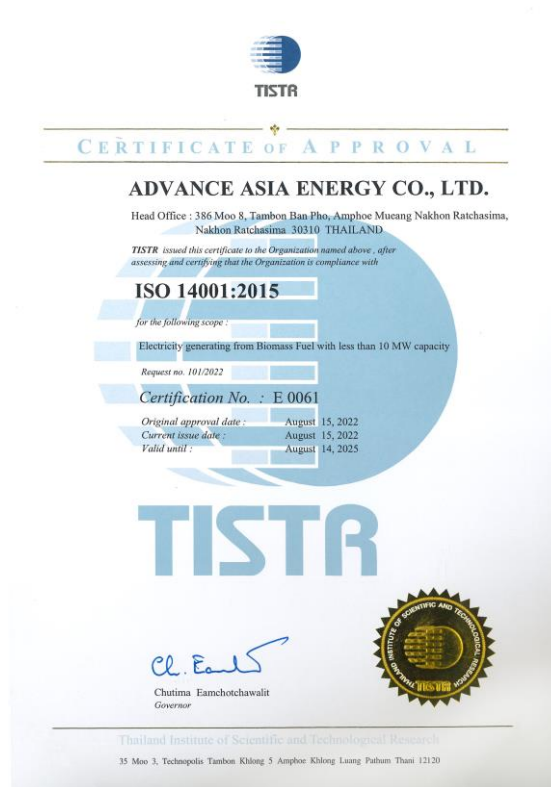


Certified date: August 15, 2022

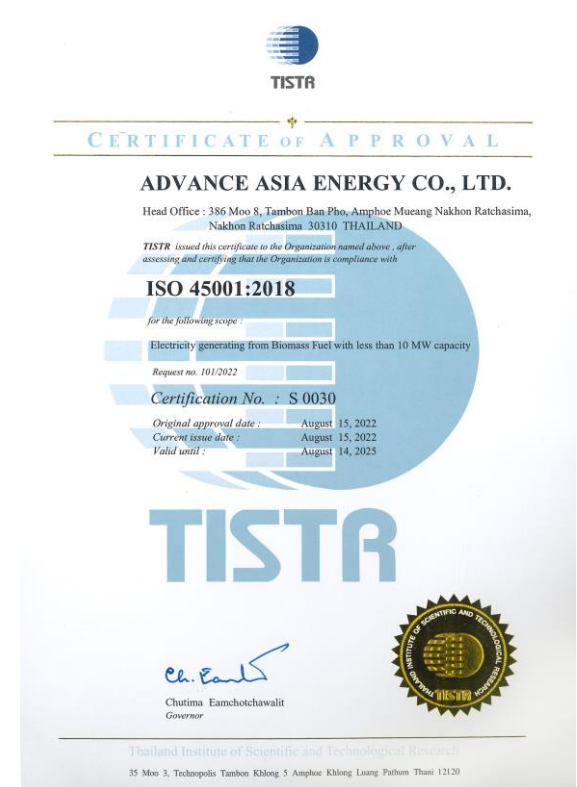
Awards & Recognitions (7/13)



Certified date: August 15, 2022

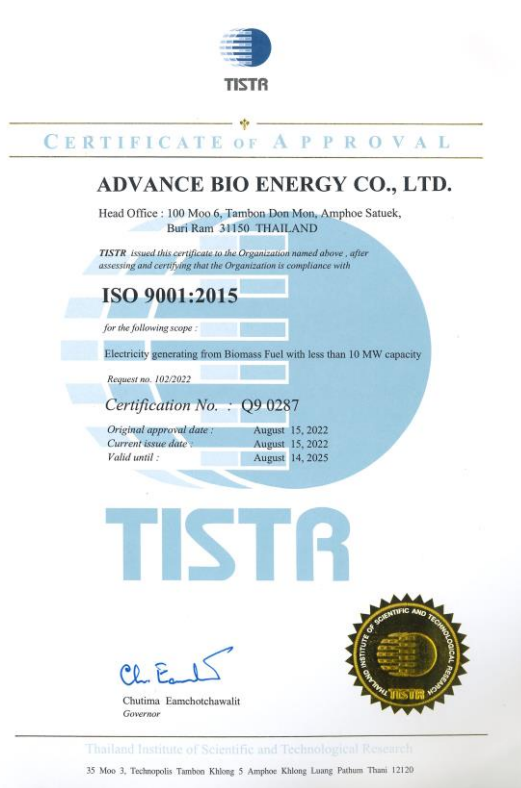


Certified date: August 15, 2022

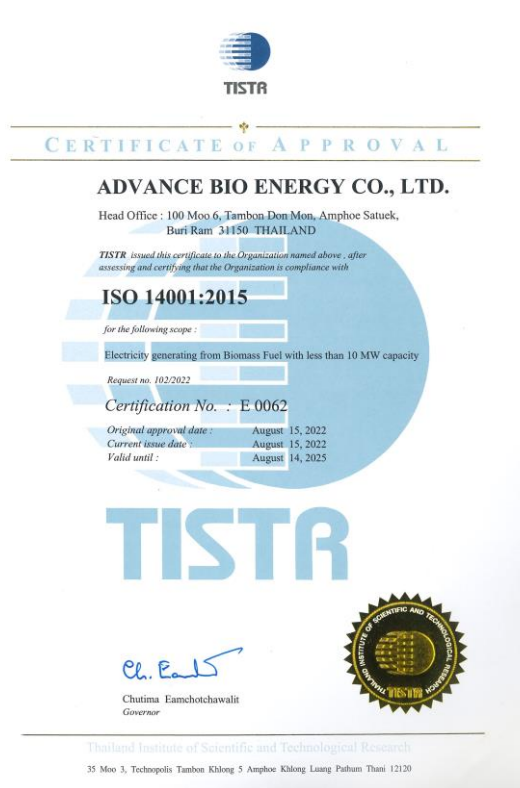


Certified date: August 15, 2022

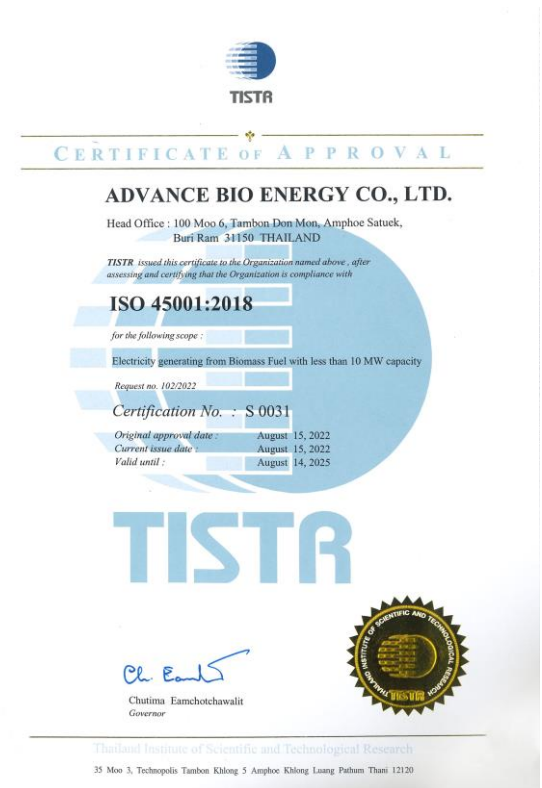
Awards & Recognitions (8/13)



Certified date: August 15, 2022

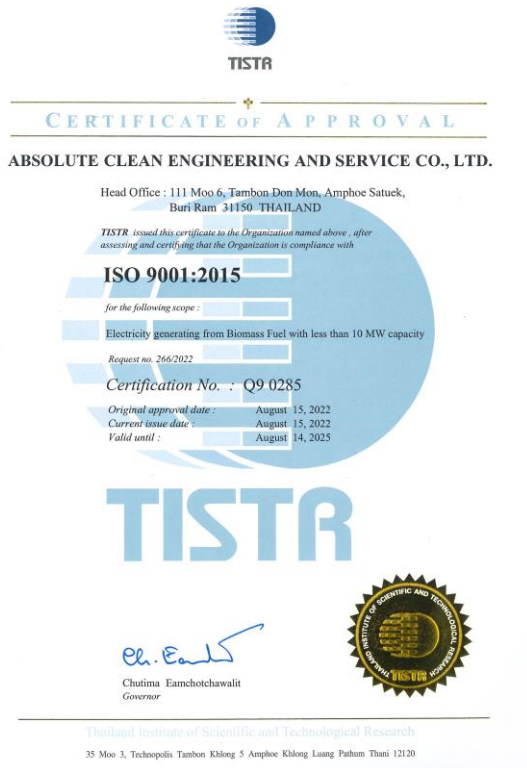


Certified date: August 15, 2022

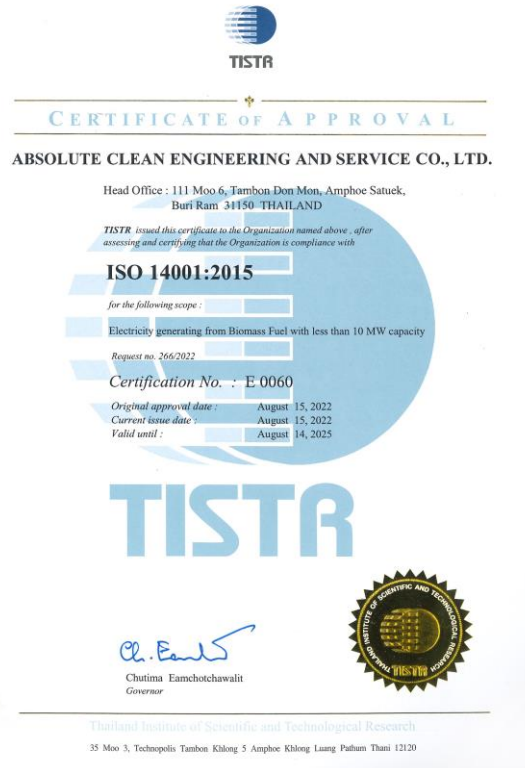


Certified date: August 15, 2022

Awards & Recognitions (9/13)



Certified date: August 15, 2022



Certified date: August 15, 2022



Certified date: August 15, 2022

Awards & Recognitions (10/13)

CERTIFICATE OF REGISTRATION

This is to certify that the management system of:
Advance Agro Asia Co., Ltd.
 Main Site: 224 Moo 7, Ko Khanun Sub District, Phanom Sarakhum District, Chachoengsao Province 24120 Thailand
 has been registered by Intertek as conforming to the requirements of:
ISO 9001:2015
 The management system is applicable to:
 Electricity Generation and Steam Distribution by Cogeneration.

Certificate Number: 24111707001
Initial Certification Date: 13 April 2018
Date of Certification Decision: 08 April 2021
Issuing Date: 12 April 2021
Valid Until: 12 April 2024

Calin Moldovean
 President, Business Assurance
 Intertek Certification Limited, 10A Victory Park, Victory Road, Derby DE24 8Z5, United Kingdom
 Intertek Certification Limited is a UKAS accredited body under schedule of accreditation no. 014.

In the issuance of this certificate, Intertek assumes no liability to any party other than to the Client, and then only in accordance with the agreed upon Certification Agreement. This certificate's validity is subject to the organization maintaining their system in accordance with Intertek's requirements for systems certification. Validity may be confirmed via email at certificate.validation@intertek.com or by scanning the code to the right with a smartphone. The certificate remains the property of Intertek, to whom it must be returned upon request.

Certified date: April 13, 2018

CERTIFICATE OF REGISTRATION

This is to certify that the management system of:
Advance Agro Asia Co., Ltd.
 Main Site: 224 Moo 7, Ko Khanun Sub District, Phanom Sarakhum District, Chachoengsao Province 24120 Thailand
 has been registered by Intertek as conforming to the requirements of:
ISO 14001:2015
 The management system is applicable to:
 Electricity Generation and Steam Distribution by Cogeneration.

Certificate Number: 24121707003
Initial Certification Date: 13 April 2018
Date of Certification Decision: 08 April 2021
Issuing Date: 12 April 2021
Valid Until: 12 April 2024

Calin Moldovean
 President, Business Assurance
 Intertek Certification Limited, 10A Victory Park, Victory Road, Derby DE24 8Z5, United Kingdom
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Certified date: April 13, 2018

CERTIFICATE OF REGISTRATION

This is to certify that the management system of:
Advance Agro Asia Co., Ltd.
 Main Site: 224 Moo 7, Ko Khanun Sub District, Phanom Sarakhum District, Chachoengsao Province 24120 Thailand
 has been registered by Intertek as conforming to the requirements of:
ISO 45001:2018
 Certified to OHSAS 18001:2007 from 04/04/2018 to 11/03/2021.
 The management system is applicable to:
 Electricity Generation and Steam Distribution by Cogeneration.

Certificate Number: 0074103
Initial Certification Date: 04 April 2018
Date of Certification Decision: 08 April 2021
Issuing Date: 12 April 2021
Valid Until: 11 March 2024

Calin Moldovean
 President, Business Assurance
 Intertek Certification Limited, 10A Victory Park, Victory Road, Derby DE24 8Z5, United Kingdom
 Intertek Certification Limited is a UKAS accredited body under schedule of accreditation no. 014.

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Certified date: April 4, 2018

Awards & Recognitions (11/13)



Certified Date: September 1, 2017



Certified Date: August 21, 2019



Certified Date: August 17, 2017



Certified Date: December 19, 2012



Certified Date: November 7, 2019



Certified Date: May 10, 2023

Awards & Recognitions (12/13)

การรับรองเลขที่ : ๓-๒๔๓๙๘/๒๕๖๑



ใบรับรองฉบับนี้ให้ไว้กับ

บริษัท แอ็ดวานซ์ คลีน เพาเวอร์ จำกัด

ที่ตั้งสถานประกอบการ : เลขที่ ๖๖๕ หมู่ที่ ๖ ตำบลหนองอีจาน
อำเภอน้ำขุ่น จังหวัดชลบุรี ๒๐๒๑๐

เพื่อรับรองว่าเป็น

อุตสาหกรรมสีเขียวระดับที่ ๓
ระบบสีเขียว (Green System)

การบริหารจัดการสิ่งแวดล้อมอย่างเป็นระบบ มีการติดตามประเมินผล
และทบทวนเพื่อการพัฒนาอย่างต่อเนื่อง

ลงชื่อ

(นายสุ โลหาราม)
ปลัดกระทรวงอุตสาหกรรม

ออกให้ ณ วันที่ : ๒๗ ตุลาคม ๒๕๖๑
มีผลถึง วันที่ : ๒๖ ตุลาคม ๒๕๖๓
เลขทะเบียนโรงงาน : ๓-๔๔-๗๙/๕๓๗

Certified Date: October 27, 2017

การรับรองเลขที่ : ๓-๕๔๑๖/๒๕๕๙



ใบรับรองฉบับนี้ให้ไว้กับ

บริษัท แอ็ดวานซ์ เอเซีย เพาเวอร์ แพลนท์ จำกัด

ที่ตั้งสถานประกอบการ : เลขที่ ๓๔๔ หมู่ที่ ๑๒ ตำบลม่วงหวาน
อำเภอน้ำทอง จังหวัดขอนแก่น ๔๐๑๑๐

เพื่อรับรองว่าเป็น

อุตสาหกรรมสีเขียวระดับที่ ๓
ระบบสีเขียว (Green System)

การบริหารจัดการสิ่งแวดล้อมอย่างเป็นระบบ มีการติดตามประเมินผล
และทบทวนเพื่อการพัฒนาอย่างต่อเนื่อง

ลงชื่อ

(นายสมชาย หาญหิรัญ)
ปลัดกระทรวงอุตสาหกรรม

ออกให้ ณ วันที่ : ๑๒ กันยายน ๒๕๕๙
มีผลถึง วันที่ : ๑๑ กันยายน ๒๕๖๑
เลขทะเบียนโรงงาน : ๓-๔๔-๖๔๕๓๗

Certified Date: September 12, 2016

การรับรองเลขที่ : GI(E) 3-238/2566



ใบรับรองฉบับนี้ให้ไว้กับ

บริษัท อัลโลแมนซ์ คลีน เพาเวอร์ จำกัด

ที่ตั้งสถานประกอบการ : เลขที่ 370 หมู่ที่ 7 ซอยบ้านคานอน ตำบลโนนท่อน
อำเภอมือจอนขอนแก่น จังหวัดขอนแก่น 40000

เพื่อรับรองว่าเป็น

อุตสาหกรรมสีเขียวระดับที่ 3
ระบบสีเขียว (Green System)

การบริหารจัดการสิ่งแวดล้อมอย่างเป็นระบบ มีการติดตามประเมินผล
และทบทวนเพื่อการพัฒนาอย่างต่อเนื่อง

ลงชื่อ

(นายอุษณีย์ ทรัพย์)
อธิบดีกรมโรงงานอุตสาหกรรม

ออกให้ ณ วันที่ : 28 พฤศจิกายน 2565
มีผลถึง วันที่ : 27 พฤศจิกายน 2568
เลขประจำตัวผู้เสียภาษี : 0105551090569
เลขทะเบียนโรงงาน : 40400004025577

Certified Date: November 28, 2022

การรับรองเลขที่ : ๒-๕๔๑๖/๒๕๖๐



ใบรับรองฉบับนี้ให้ไว้กับ

บริษัท แอ็ดวานซ์ อีโกร เอเซีย จำกัด

ที่ตั้งสถานประกอบการ : เลขที่ ๒๒๔ หมู่ที่ ๗ ตำบลเกาะขาม
อำเภอนวมสธารคม จังหวัดฉะเชิงเทรา ๒๔๒๑๐

เพื่อรับรองว่าเป็น

อุตสาหกรรมสีเขียวระดับที่ ๒
ปฏิบัติการสีเขียว (Green Activity)

การดำเนินงานเพื่อลดผลกระทบสิ่งแวดล้อมได้สำเร็จตามความมุ่งมั่นที่ตั้งไว้

ลงชื่อ

(นายสมชาย หาญหิรัญ)
ปลัดกระทรวงอุตสาหกรรม

ออกให้ ณ วันที่ : ๒๖ พฤษภาคม ๒๕๖๐
มีผลถึง วันที่ : ๒๕ พฤษภาคม ๒๕๖๒
เลขทะเบียนโรงงาน : ๓-๔๔(๒)-๔/๕๔๑๗

Certified Date: May 26, 2017

Awards & Recognitions (13/13)



Received Date : September 1, 2017



Received Date : 2018



Received Date: August 20, 2017



Received Date: August 20, 2017



Received Date: August 17, 2018



Received Date: August 17, 2018



Received Date: August 17, 2018