

# **CLEAN ENERGY**

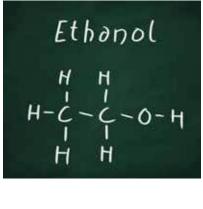
For Clean Environment

TAE To be a leader in alternative energy development for better environment and society.











# **CONTENTS**

Report of Board of Directors to Shareholders Board of Directors Executives of The company

PART 1	:	<b>Business</b>	Engagement
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1. Business Policy and Overview	06
2. Business Operation	15
3. Risk Factors	38
4. Properties Used in Business Operations	45
5. Legal Controversy	47
6. General Information and Others	48
PART 2 : Management and Corporate Governance.	
7. Securities and Shareholder Information	70
8. Management Structure	72
9. Corporate Governance	80
10. Corporate Social Responsibility	97
11. Internal Control	107
12. Related Transaction	109
PART 3 : Financial Position and Operational Results	
13. Financial Highlights	112
14. Management Discussion and Analysis : MD&A	117
15. Financial Statements and Independent Auditor's report	125

# Report of Board of Directors to Shareholders

I, on behalf of Board of Directors of Thai Agro Energy Public Company Limited, am pleased to inform you in company's financial status and outcome of year 2014, in which first year that became to listed company.

Company has resulted in business of ethanol for fuel, which was main business in 2014, with revenue 2,500.43 million Baht and net profit 219.31 million Baht, increased by previous year 50.65% and 86.36%, respectively, because we had used management policy that emphasized on efficiency of manufacturing processes for low operation cost, but still remain in quality of products and respond to customers' requirement invariably.

Sale volume of ethanol and its price in year 2014 had increased by previous year 45.86% and 3.61% respectively, because average domestic supply of ethanol increased from 2.60 million liters per days in 2013 to be 3.24 million liters per day in 2014, equals to 24.62%. This was resulted by the government had policy to cancel distribution of benzene 91, and then usage volume of gasohol E20 and E85 had increased constantly, especially, gasohol E20 which all models of vehicle are usable. This caused to demand of ethanol for mixing to gasohol had increased constantly.

Board of Directors had become aware of duties and responsibilities in management and resolving any troubles conservatively, with principle of Good Corporate Governance and Corporate Social Responsibilities, for permanently growth of organization and able to requite to socials and shareholders.

Mr. Wisith Noiphan

Chairman of Board of Directors

# **BOARD OF DIRECTORS**

# THAI ARGO ENERGY PUBLIC COMPANY LIMITED







Mr. Suroj Subhasavasdikul
Vice Chairman of the Board and Authorized Director

Mr. Anun Louharanoo
Authorized Director

Mr. Somehit Limwathanagura
Authorized Director





# Mr. Srihasak Arirachakaran

**Authorized Director** 



# Mr. Somchai Lovisuth

Authorized Director and Chief Executive Officer .....



# Mr. Padetpai Meekun-iam

Independent Director and Audit Committee Chairman



# Mr. Virach Aphimeteetamrong

Independent Director and Audit Committee



# Mr. Satit Chanjavanakul

Independent Director and Audit Committee

# **Executives of**

Thai Argo Energy Public Company Limited



Mr. Mongkhon Sunnanon
Plant Director



Mrs. Somrudee Suwannaroop

Management Director and

Company Secretary



Miss Kanyaphat Chinandej Business Development and Marketing Director



Mr. Anan Rayaruji
Assistant Plant Director



Mr. Anukitti Boonyamongkonrat
Assistant Plant Director



Miss Theeranant Kunakasem
Accounting and Finance Department Manager



Mr.Suphachai Kaewfuang Audit Department Manager



# PART 1

# **Business Engagement**

# 1. Business Policy and Overview

Thai Agro Energy Public Company Limited manufactures and distributes 99.5% vol. ethanol for fuel. Ethanol  $C_2H_5OH$  has boiling point at 78 degree Celsius. Normally is clear liquid, no color, flammable, and high octane. We distribute denatured ethanol to petroleum trader under Section 7 of Petroleum Trading Acts B.E.2543, for mixing with benzene by 10%, 20%, and 85%, to be gasohol E10, E20, and E85, respectively, and then use to be vehicle fuel, which led to reduce importing volume of petroleum and additives for benzene, called MTBE (Methyl Tertiary Butyl Ether), along with air pollution that be friendly environment.

Today, we have ethanol factory with MAGUIN INTERIS technology, by France, total capacity 365,000 litres per day or 120.75 million litres per year (determined by 330 days a year). However, our ethanol production line separated into 2 lines as following;

	Line 1	Line 2
Raw Material	Molasses	Molasses or Tapioca
Capacity	165,000 Litres per day	200,000 Litres per day
Commencement Date	31 January 2005	2 April 2012

Our ethanol factories have been promoted by the Board of Investment of Thailand (BOI), according to BOI's Certificate No. 1760(2)/2546 dated 26 December 2003 for production line 1 and No. 2078(9)/2551 dated 19 November 2008 for production line 2. Those BOI's Certificates have privilege in tax and special conditions as following;

- 1. Exempted in corporate income tax for any profit by promoted business and exempted in no dividend by promoted business that exempted in corporate income tax to determining income tax, for 8 years since commencement date of income. Tax privilege of production line 1 had expired on 30 January 2013, but tax privilege of production line 2 will be expired on 1 April 2020.
- 2. Allowed to taking loss, which occurred during period of tax exempted, to deduct from net profit that occurred subsequently for 5 years since the year of tax exempted under item 1.

- 3. Exempted in import duty for raw materials and substances which necessary to import from abroad to produce for exporting, 1 year since first importing.
- 4. Exempted in import duty for machinery which approved by the BOI.

# 1.1 Business Policy and Target

#### Vision

"Being leader in alternative energy development for better environment and society"

#### Missions

We are determined to manufacture ethanol and to promote the use of ethanol as alternative energy through collaboration with government agencies, educational institutes and private sector that would lead to integrated development of fuel ethanol use while assuring good corporate governance for the benefit of the organization, shareholders, business partners and society stakeholders.

# **Quality Policy**

We are engrossed to produce and sell fuel ethanol with quality and standards, and ensure and make satisfying in our products and services under following 3 principles;

- (1) Continuously develop and improve production processes;
- (2) Checking quality of raw materials, chemicals, and industrial water; along with product quality thorough manufacturing processes under ISO 9001:2008 standard;
- (3) Creating conscious mind and devotion in customer care with accountability, efficiency, and sincerity.

# Corporate Social Responsibility (CSR)

We are engrossed to manage and operate business with responsibility towards society and stakeholders such as shareholders, customers, traders, employees and staff, communities, and neighborhoods. We has provided rule of practice against stakeholders under Good Corporate Governance principle, including campaigning for and encouraging employees' conscious mind to participate in any communities' activities for life quality development of employees and surrounding communities and society. 4 of our policies and rules of practices are following;

#### (1) Environment

We intend to run environmentally responsible operation under the following principles;

- Following and complying with environmental laws and regulations;
- Developing and improving production process and the industrial waste management system in order to minimize the impact of pollution on environment and to comply with ISO14000;
- Creating environmental awareness among employees at all levels to responsible in environmental both in- and outside the plant;
- Preparing operation plans and constantly monitoring and evaluating its outcome;
- Improving the plant and surroundings to become to a "Green Plant".

# (2) Safety and Occupational Health

Safety and occupational health of employees is our primary responsibility and major factor for our success and growth. We, therefore, stipulated following policies and principles:

- Complying with laws and regulations relating to safety and occupational health;
- Minimizing and controlling risks in hazardous working conditions;
- Providing measure in safety prevention and protective equipment for employees while working;
- Always training employees in accident prevention and management;
- Establishing a safety, occupational health and environment committee to considering action plans and monitoring and evaluating its performance.

# (3) Natural Resource Conservation

We emphasizes on efficiently use of natural resources with following resource management strategies consecutively;

# (a) Energy conservation

- Utilizing biogas from wasted water treatment system in lieu of fuel oil;
- Using high-efficient and power-saving devices to reduce electricity consumption;
- Establishing energy audits for optimal efficiency of electricity consumption;



- Training employees to understand and aware in their responsibility to conserve all energy in the plant.

# (b) Water resource and wastewater treatment

- Checking raw water treatment system and devices in transmission system to prevent loss of water resulting from leakage or damaged devices;
- Recycling water from treatment system to use in the production process of ethanol;
- Regularly checking water quality to prevent undesirable effects on the quality of ethanol output;
- No discharge of treated wastewater into the environment in compliance to "Zero Discharge" measure;
- Promoting economical use of water for consuming.

# (c) Air Pollution Management

- Regularly improving biogas production efficiency to prevent leaking into the atmosphere;
- Checking fuel combustion system by schedule to ensure that the quality of exhausted air meets to standards of the Industrial Works Department;
- Checking air quality every 6 months.

# (4) Social Responsibility

We are well aware that "society" -- from small society of employees who play a vital role in strengthening the organization's potentiality and competitiveness to extended society at communal and national levels -- is a main factor of our sustainability and steady growth. We began at small society in our organization, namely, staffs who are core of potentiality and competitiveness, to communities and nation society. We have several activities of individual societies as following;

# (a) Organization level

- Developing skills of employees at all levels; creating intra-organizational knowledge towards competence management;
- Encouraging employees to illustrate their opinions;
- Encouraging employees to participate into community development.

# (b) Community level

- Conserving natural resources and environment;

- Promoting and developing quality of life;
- Enhancing youth education and learning in the community;
- Encouraging learning and interest in culture, ethics and dhamma as foundation for the development of quality of life for youths.

# (c) National level

- Supporting in environment conservation activities;
- Supporting in development of learning, public mind and social responsibility among youths.

# Policy in Anti-Corruption

We are engrossed to anti all corruptions. Board of Directors has set policy in anticorruption to creating conscious mind of any and all directors, executives, and staffs on hazards of corruption, along with making correct values and confidence to any and all stakeholders, for long-term permanently organization development.

Any and all directors, executives, and staffs have been prohibited to act or accept any and all corruption, both directly and indirectly, including all related business and authorities in domestic and international. We always provided investigating or examination, according to policy in anti-corruption, along with reviewing operation guidelines and regulations to be corresponding with business changing, regulation, and related laws.

- (1) All company's directors, executives, and staffs shall be complied with policy in anti-corruption and business ethics, and shall not be engaged in any and all corruption matter, neither directly nor indirectly;
- (2) If found any action that may be corrupted, all company's staffs shall not avoid or neglect to inform their superior or responsible person and go along to investigate any facts. If there is doubt, they shall advise to their supervisor or any person who be assigned to responsible in business ethics.
- (3) We give fair treatments and protect any staffs who inform in corruption that related to our company with protective measurement of appellant or participant on reporting corruption as stipulated in rule and guideline of whistle-blowing or petition of interested person.
- (4) Someone who corrupts or uphold corruption is defaulted in business ethics and shall be punished by company discipline and the laws.

(5) We become aware of importance in knowledge propagation and understanding making in policy in anti-corruption to others who worked with us.

To be acted under policy in anti-corruption, we have operation guideline as following summary;

- (1) Setting policy in anti-corruption to cover human resource management, as procure or selection, promotion, training, performance evaluation, and rewarding. All superiors in any level need to try to understand with their subordinates in this policy to use in any and all activities of their responsible and controlling for more efficiency and effectiveness.
- (2) Operating in high risk matters of corruption, any and all directors, executives, and staffs must perform carefully, especially following matters;
  - (2.1) Not offer, demand, agree or accept any and all reward or bribe to or from others person or authority, in any types, neither directly nor indirectly, that requite and subserve to any action or wish in any benefits related to our business;
  - (2.2) Receiving or giving of donation or supporting need to be clearly, transparently, and correctly under the law, and be ensure that such donation and supporting shall not be claimed as bribe;
  - (2.3) Receiving or offering bribe in any and all business, our operation, and government's communicating are prohibited, and need to be transparently and honestly, along with need to comply with the law strictly.

# Policy in Subsidiaries or Joint Venture Investment

We have a policy to invest in subsidiaries or joint venture who has objectives of same or similar business, or any and all business that support our business to be growth or more profits or synergy with us which supportable to our main business for more completely.

However, our investments in subsidiaries and joint ventures are controlled and investigated by the Audit Committee. For controlling of subsidiaries and joint ventures, we sent our directors or selected any qualified and experienced executives to be management representative and set major policy along with control any business operation of those subsidiaries and joint ventures.

To prevent any and all conflict of interest that may occurred, the meeting of Board of Directors of Lanna Resources PCL, who is our major shareholders, had approved all operation in Bio Fuel to managed by us.

# 1.2 Backgrounds and Distinguished Development

# 1.2.1 Backgrounds

Ethanol used to be fuel that produced by us will be mixed by benzene and called "Gasohol Fuel." The gasohol production in Thailand according to the Royal initiative of His Majesty the King in 1985 was undertaken by the Royal Project which conducted the study of gasohol produced from sugarcane as alternative fuel. Subsequently, both state and private agencies were keen to develop gasohol and test it with engine. Latterly, in 2003 world oil price had increased numerously, the government had precipitated into producing and using gasohol intensively, including encouraging ethanol production for gasohol. Moreover, former shareholders had foreseen an opportunity of business growth in ethanol production and distribution to be fuel, and then established Thai Agro Energy Company Limited on 25 October 2001 with 10 million Baht of initial registered capital, to produce and distribute ethanol to be fuel. We had been permitted by the National Ethanol Committee, through Decision of the National Energy Policy Council No. 2/2545 on 8 July 2002, to build ethanol factory. Thereafter, 18 June 2003, Lanna Resources Public Company Limited ("LANNA") had purchased our ordinary share till LANNA is major shareholders with 75% of issued shares. Therefore, we are subsidiary of LANNA. We acquired oil trader license under Section 10 of the Fuel Trading Acts B.E.2543 on 29 April 2005. We are first licensed oil trader. 18 October 2007, we had transformed to be public company limited and changed our name to "Thai Agro Energy Public Company Limited."

Our distinguished developments are following;

#### 2003

We increased our registered capital more 255 million Baht, from 10 million Baht, to be 265 million Baht, by issuing new 25.50 million ordinary shares with 10 Baht par value and offered to existed shareholders, for business expanding and working capital. In this capital increasing, LANNA had purchased 19,875,000 shares. Therefore, LANNA had proportion 75% of issued shares and we was subsidiary of LANNA.

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- We acquired license for ethanol manufacturing and distribution by Department of Industrial Factory on 22 September 2003.
- We acquired BOI Certificate for Ethanol manufacturing of production line 1 by the BOI Committee on 26 December 2003.

# 2004

Construction of molasses ethanol factory (production line 1) completed fully.

#### 2005

- We initially started to produce and distribute ethanol from production line 1 on 31 January 2005.
- We had been permitted to be Oil Trader under Section 10 of the Fuel Trading Acts
   B.E.2543 for distributing ethanol to be fuel by Department of Energy Business.

#### 2006

- LANNA purchased our 200,000 ordinary shares from existed shareholder. Then, number of shares held by LANNA increased from 19,875,000 shares to be 20,075,000 shares or equals to 75.75% of issued shares.
- January 2006, we started to use biogas of plant 1 which used Anaerobic Baffled Reactor (APR) technology.
- We were permitted by the Excise Department to produce and distribute ethanol 99.5% at least to distribute to oil trader directly only, with 150,000 liters a day, on 31 March 2006.
- We increased registered capital more 106 million Baht, from 265 million Baht, to be 371 million Baht, by issuing new 10.60 million ordinary shares, 10 Baht par value, offered to existed shareholders, for business expanding and working capital.

#### 2007

- We increased registered capital more 79.50 million Baht, from 371 million Baht, to be 450.50 million Baht, by issuing new 7.95 million ordinary shares, 10 Baht par value, offered to existed shareholders, for business expanding and working capital.
- We increased registered capital more 149.50 million Baht, from 450.50 million Baht, to be 600 million Baht, by issuing new 14.95 million ordinary shares, 10 Baht par value, offered to existed shareholders, for business expanding and working capital.
- On 18 October 2007, we transformed to be public company limited and changed name to "Thai Agro Energy Public Company Limited", and registered to change par value to 1 Baht from 10 Baht.

• On 25 December 2007, we were permitted by the Excise Department to export ethanol to abroad.

#### 2008

We acquired BOI Certificate for Ethanol manufacturing of production line 2 by the BOI Committee on 19 November 2008.

#### 2009

■ 30 June 2009, we acquired ISO 9001:2008 and ISO 14001:2004 from KAS, England, and NAC, Thailand, certified by SGS (Thailand).

# 2010

• We began to construct factory to produce ethanol by tapioca (production line 2) to expand capacity more 200,000 liters a day or 66.00 million liters a year (based on 330 days a year.)

#### 2011

- We tested run ethanol machineries by tapioca of production line 2 in January 2011.
- We began to use biogas from plant 2 that use Upflow Anaerobic Sludge Blanket (UASB) technology on May 2011.
- We increased registered capital more 200 million Baht, from 600 million Baht, to be 800 million Baht, by issuing new 200 million ordinary shares, 1 Baht par value, offered to existed shareholders, for business expanding and working capital.
- We had been permitted by the Excise Department to expand ethanol productivity from 150,000 liters a day to be 350,000 liters a day, on 22 July 2011.
- Quarter 3 of 2011, we improved production line 2 to capable of produce by molasses.

#### 2012

- We began to use biogas from plant 3 which use Modified Covered Lagoon (MCL) technology on March 2012.
- On 2 April 2012, first time we were able to produce and distribute ethanol by molasses from production line 2.

#### \_

#### 2013

September 2013, we registered more capital 200 million Baht, from 800 million Baht, to be 1 billion Baht, with 1 Baht par value.

# 2014



June 2014, registering to increased capital against the Department of Business Development, Ministry of Commerce, from 800 million shares 1 Baht par value or 800 million Baht, to be 1 billion shares 1 Baht par value or 1 billion Baht, and initiated share trading in Stocks Exchange of Thailand.

# 2. Business Operation

#### Income Structure

Type of Income	Year 2012		Year 2013		Year 2014	
	M. Baht	%	M. Baht	%	M. Baht	%
Income on Sale						
- Income by selling	1,330.43	98.49	1,330.43	98.49	2,495.12	99.79
denatured ethanol <sup>1)</sup>						
- Income by selling	19.43	1.44	19.43	1.44	1.16	0.04
agricultural raw material						
and crops <sup>2)</sup>						
Total Income on Sale	1,349.86	99.93	1,349.86	99.93	2,496.28	99.83
Other Incomes <sup>3)</sup>	1.01	0.07	1.01	0.07	4.15	0.17
Total Income	1,350.87	100.00	1,350.87	100.00	2,500.43	100.00

- Remark : 1) Income by selling denatured ethanol is occurred by selling ethanol 99.5% mixed with benzene/gasohol 0.5% under regulation of the Excise Department in distributing ethanol for fuel.
  - 2) Income by selling agricultural raw material and crops includes tapioca chip, fresh tapioca, sugar cane, and molasses.
  - 3) Other incomes includes income by selling fusel oil, assets, and received interest, etc.

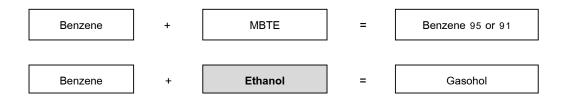
# Business Operation of Individual Product Line

#### 2.1 Nature of Product

# (1) Ethanol

Our main product is "Ethanol" or Ethyl Alcohol that derived from transformation of agricultural crops, in type of flour and sugar – such as molasses, tapioca, corn, etc. – and processed by decaying and fermenting to transform flour to be sugar and then distill to be alcohol 99.5% vol. Ethanol by  $C_2H_5OH$  molecule has boil point at 78 degree Celsius. Normally it is clear liquid, no color, flammable, and high octane. Because of high

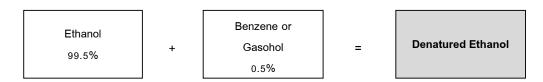
oxygen at 35%, then it is usable instead of MTBE (Methyl Tertiary Butyl Ether) which is additive for benzene. Disadvantage of MTBE is carbon monoxide together with residue and contamination to underground water. Therefore, if taking ethanol to mix with benzene in suitable ratio, we will obtain gasohol fuel which cleaned and completely burnt up along with reducing air pollution. Hydrocarbon, Carbon Monoxide (CO), and Carbon Dioxide (CO<sub>2</sub>) could be reduced including smoke, aromatic, and benzene compound. These are good for environment.



Production processes of our ethanol are separated into 2 lines as;

	Line 1	Line 2
Raw Material	Molasses	Molasses or Tapioca*
Capacity	165,000 Litres per day	200,000 Litres per day
Commencement Date	31 January 2005	2 April 2012

By regulation of the Excise Department, our ethanol distributing must be in denatured ethanol, which is ethanol mixed with fuel according to formula of the Excise Department for mixing with fundamental benzene to produce gasohol fuel (defined by Announcement of Department of Energy Business in Nature and Quality of Denatured Ethanol B.E.2548.) Fuel we used to mix with ethanol is Benzene 91, but after cancellation of benzene 91, we moved to use gasohol 91 instead. To mixing denatured ethanol, 0.5% of benzene or gasohol will be mixed to 99.5% of ethanol, to be denatured ethanol and distribute to customers.



Quality of denatured ethanol that we produced and distributed is according to standard of the Department of Energy Business. Our quality control department had examined and checked quality of ethanol every day.

Before ethanol manufacturer distribute denatured ethanol to customers, it is necessary to obtain license for oil trader under Section 10 of the Fuel Trading Acts B.E.2543 from the Department of Energy Business, Ministry of Energy. We obtained such license on 29 April 2005, being first ethanol manufacturer who obtained this license. Oil trader under Section 10 is covered to oil trader who has volume of each or total oil less than 100,000 metric ton (about 120 million liters) per year and exceed 30,000 metric ton (about 36 million liters) per year, or who has storage tanks for each or total oil not exceed 200,000 liters.

We has privileged by BOI under the Investment Promotion Acts B.E.2520 as following summarized;

	Line 1	Line 2
BOI Certification No.	1760(2)/2546	2078(9)/2551
Promoted Product	Pure Alcohol	Pure Alcohol
Volume that exempted tax	54,750,000 liters	66,000,000 liters
	(working hours 24 ชม./	(working hours 24 ชม./
	day : 365 days/year)	day : 330 days/year)
Commencement Date	31 January 2005	2 April 2012
Expired date of privileges	30 January 2013	1 April 2020
Obtained Privileges:		
1. Exempted in corporate income tax for any profit by	8 years,	8 years,
promoted business and exempted in no dividend	Since commencement	Since commencement
by promoted business that exempted in corporate	date of income	date of income
income tax to determining income tax	(expired on 30 Jan. 2013)	
2. Allowed to taking loss, which occurred during period	5 years,	5 years,
of tax exempted, to deduct from net profit that	since end of the year of	since end of the year of
occurred subsequently	tax exempted	tax exempted
3. Exempted in import duty for raw materials and	1 year,	1 year,
substances which necessary to import from abroad	since first importing	since first importing
to produce for exporting		
4. Exempted in import duty for machinery which	✓	✓
approved by the BOI		

Moreover, we have been certified by ISO 9001:2008 for quality management system and ISO 14001:2004 for environment management standard, from UKAS institution, England. These are proofed that we have good environment management system and have always controlled and maintained production processes, including operation plan in environment management to minimize or reduce its influence clearly and by defined standards.

# (2) Raw Materials and By Products

Other than main product, ethanol, we derived by product, Fusel Oil, from distillation process, in which comprised with several types of alcohol. By using Fusel Oil, it needs to separate by distillation and purification, then taking to use as solvent in any industries – such as perfume, resin and plastic, lacquer, and ink, etc. Fusel Oil occurred in in our production processes is 200 liters a day.

In 2012-2013, we had tapioca cultivation project for selecting its varieties suitable to ethanol production. Demonstrated tapioca garden was provided and also had income by selling of fresh tapioca, as by product of this project. In addition, we had income by selling sugar cane on our lands that purchased from other landlords. Now, all our tapioca and sugar cane had been cropped. We had no longer policy to cultivate tapioca and sugar cane in the future.

Moreover, in year 2014, we had income by selling raw materials for ethanol production – tapioca chip and molasses. During running test of machineries of production line 2 that need tapioca chip to be raw material, we had purchased from supplier to prepare for production. But quality of those tapioca chips not met with our specification, so they could not use to produce ethanol. We had gradually sold them out.

# 2.2 Marketing and Competitive Condition

#### 2.2.1 Competitive Strategies

#### 1. Product Quality

We have policy that emphasize on producing high quality ethanol to response customers' demand. We pay attention to check quality of ethanol regularly, since selecting and checking quality of raw materials, especially molasses which is main material in our production process. In addition, technology we used in both of our production line derived from MAGIUN INTERIS, France, in which modern and accepted by worldwide ethanol manufacturers. All production processes have been controlled by Distributed Control System (DCS) that modernized and accuracy. Moreover, we have checking and controlling ethanol

quality at all processes to final stage before deliver to our customers. All our performance aims to be ensured that produced ethanol meet with our standard. We are able to produce pure ethanol up to 99.8%, which higher than standard of the Department of Energy Business.

# 2. Efficient Manufacturing Cost Management

We preferred to management in manufacturing cost which is main cost that effect to profitability and competitiveness. Today, we used biogas that derived from wasted water treatment, which occurred by ethanol production process, to be main fuel for streamer that used in ethanol production process, instead of bunker oil which is more expensive. This led us to save fuel cost since year 2013 or equals to 4.50 Baht per a liter of ethanol. Furthermore, manufacturing technology we used in ethanol production is automatic system that fully controlled by computer. Thus, there are not much employees in any production line. This helped to reduce our payroll expense more.

Besides, as we designed production line 2 to selectable in raw material – molasses or tapioca chip – for ethanol production, this led us to more flexible in cost management for more efficiency. If either raw material has price up we then selects to use another one to produce ethanol instead.

#### 3. Certainty of Delivering

Delivering on time is an important factor that customers use to considering to purchase denatured ethanol. Purchaser will have a plan to receive ethanol in certain quantity and on time. If we could not deliver products in specified quantity and time, it will effect to customers' confidence and our images. We, therefore, are holding main policy to deliver products to customers on time. This is satisfying to our customers and also makes confidence. These led customers back to our services continually.

#### 4. Maintain Good Relationship to Customers

We are first ethanol manufacturer who obtained fuel trader license under Section 10 of the Fuel Trading Acts B.E.2543. This is led us to have customers who are dealt with for long time, together with we emphasized on making relationship to customers continually for their confidences and trusted in our high efficiency manufacturing processes and services. We were co-planning with customer in ethanol delivering schedule, both quantity and time, to make confidence that we would derivable on time and met with customers' desires. We used these information to plan our manufacturing and purchasing raw material for optimum efficiency and always deliverable with correct quantity, quality, and time.

# 2.2.2 Customers

We are distributing denatured ethanol for mixing with benzene in any ratio to be gasohol. Our major customers are oil traders under Section 7 of the Fuel Trading Acts B.E.2543, which are large nation oil traders. We will make ethanol purchasing agreement with 3-12 months maturity, depends on individual customer's policy, that will define quantity of denatured ethanol and its schedule of delivery. Denatured ethanol price will be set by quarterly.

# 2.2.3 Pricing Policy

The government, by Energy Policy and Planning Office (EPPO), Ministry of Energy, will be set reference price of ethanol to be basis for negotiating between purchaser and seller. Formula of reference price of ethanol is now a weight average method by volume and actual price. This formula was used since June 2013 with following details;

$$\overline{P}_{Eth} = \frac{\left(\sum_{i=1}^{n} Q_i P_i\right)}{\left(\sum_{i=1}^{n} Q_i\right)}$$

Where;  $\overline{P}_{\rm Eth}$  is reference ethanol price in Baht per liter, which will announce every first date of each month

- $Q_i$  is sale volume of ethanol that manufacturer sell to oil trader under Section 7 (liter), by the Excise Department
- P<sub>i</sub> is ethanol price that manufaturer sell to oil trader under Section 7(Baht), by the Excise Department
- *n* is number of ethanol distributing transaction

We have policy in pricing by Cost Plus Margin. Other than determining by reference ethanol price that announced by EPPO, we also considered any factors in denatured ethanol pricing – such as raw materials price, market demand and supply, and overall competitive condition both domestic and international, etc.

# 2.2.4 Distributing and Distribution Channels

For distributing ethanol which is alcohol 99.5% vol., the Excise Department has regulation as defined in ethanol production and distribution license agreement

that; Company need to take all produced ethanol to mix with fuel or distribute to fuel trader directly only and need to denature by formula defined by the Excise Department to be Denatured Ethanol, before bring out of company's factory. By such denaturing, we previously used Benzene 91, but after cancellation of benzene 91 distribution, we have used Gasohol 91 instead. Denatured ethanol which distribute to fuel traders under Section 7 of the Fuel Trading Acts B.E.2543 was mixed by gasohol 0.5% and ethanol 99.5%. Fuel traders would take those ethanol to mix with benzene by 10%, 20%, or 85% to be Gasohol E10, Gasohol E20, or Gasohol E85, respectively.

Our distributing denatured ethanol, most customers are responsible in transportation cost, caused by customers received products at our factory, thus we were not responsible in any damages during transportation. However, there is a customer we had to deliver to his warehouse. Transportation expense would be already included in its price. In this case, we should be responsible in any damages during transportation until reached customer's warehouse. We employed carrier to deliver to this customer. In transportation agreement between such carrier and us had defined expressly that carrier shall responsible in any and all damages may occurred by contamination, deteriorate, or loss of products during transportation and accident, whether occurred by whatsoever reason, carrier have to compensate all damages to us or customer. Purchased ethanol quantity will be based on meter at company's factories, which are regularly passed calibration according to the laws.

# 2.2.5 Industrial and Competitive Situation

# Industrial Situation

We are operating in manufacturing and distributing ethanol for fuel to domestic large fuel traders to mix with benzene to be gasohol. Now, molasses are main raw material. Thus, industries may affected to our business operation are ethanol industry, gasohol industry, and molasses industry.

# Situation of Ethanol Industry

Ethanol is one of alternative energy encouraged by the government to instead of benzene fuel and reducing fuel importing. Because of variation of crude oil price in world market had been increased constantly and crude oil in domestic was not sufficient to its demand, crude oil therefore needed to import up to 80% of domestic demand. This caused to Thailand wasted numerous foreign currency to import crude oil . In 2014, Thailand imported crude oil 46,710.11 million liters, or 979,978.09 million Baht in value.

By these reasons, the government had policy to the Ministry of Energy to prepare Alternative Energy Development Plan (AEDP) for 25% in next 10 years (2012-2021) to orientating and scoping national alternative energy development, which aims to be developable alternative energy to be one of main nation energy and instead of fossils fuel and importing. Alternative energy proportion has been increased from 7,413 ktoe (thousand metric ton compared with crude oil) in 2012 or equals to 10% of total national energy usage, to be 25,000 ktoe in 2021 or equals to 25% of total national energy usage, with following target;

Course of Alternative France	V 2014	Target in `	Year 2021
Source of Alternative Energy	Year 2014	Previous	Adjusted*
Alternative Energy for Electric Plant			
- Solar Power	1,298.51 mw	2,000 mw	3,000 mw
- Wind Power	224.47 mw	1,200 mw	1,800 mw
- Water Power	142.01 mw	1,608 mw	324 mw
- Incinery Power	65.72 mw	160 mw	400 mw
- Biomass	2,541.82 mw	3,630 mw	4,800 mw
- Biogas	311.50 mw	600 mw	3,600 mw
- New type of power	0 kw	3 mw	3 mw
Alternative Energy for Transportation			
- Ethanol	3.21 m. liters/day	9 m. liters/day	9 m. liters/day
- Biodiesel	2.89 m. liters/day	5.97 m. liters/day	7.20 m. liters/day
- New Alternative Fuel for Diesel	-	25.0 m. liters/day	3.00 m. liters/day
- Compacted Biogas (CBG)	-	ı	1,200 ton/day
Alternative Energy for Thermal			
- Solar Power	5.12 ktoe	100 ktoe	100 ktoe
- Biogas	488.08 ktoe	1,000 ktoe	1,000 ktoe
- Biomass	5,184 ktoe	8,200 ktoe	8,500 ktoe
- Incinery Power	98.06 Ktoe	35 ktoe	200 ktoe
Alternative Energy Using	9,025.00 ktoe	25,000 ktoe	25,000 ktoe
Final Energy Using	75,804.00 ktoe	99,838 ktoe	99,838 ktoe
Alternative Energy Using (%)	11.91%	25%	25%

Source : 25% Alternative Energy Plan for Next 10 Years (2012 – 2021) (AEDP)

Note : Adjusted target of Alternative Energy Development Plan 25% in next 10 Years, according to resolution of National Energy Policy Council No. 2/2556 on 16 July 2013

By above AEDP, although target of ethanol usage is 9 million liters a day in year 2021, but the government has operation guideline for encourage ethanol usage to meet with its target as following;

# **Price**

Increase differ price of gasohol E10 and E20

# Fuel Station and Type

- Increase fuel station for gasohol E20 and E85
- Cancel distribution of gasohol E10 (91)

#### Public Relation

Instructing in using gasohol suitably to vehicle (E10/E20/E85)

#### **Vehicle**

- Tax privilege for car/motorcycle which used Gasohol E85
- Measurement to reduce life age of old car that not supported E85

#### Raw Material

- Focuses on expanding cultivation area and proper yield per Rai
- Consider to use cane juice to produce ethanol (need to amend the Sugar Cane and Sugar Acts B.E.1984)

In the past, domestic ethanol demand had been increased constantly according to volume usage of gasohol that increased from 12.01 million liters per day in 2010, to be 21.94 million liters per day in 2014, or compound annual growth rate (CAGR) 16.32% per year (see details in situation of gasohol industry). These are caused by encouragement of government in alternative energy, including promoting people to use gasohol instead of benzene to reduce fuel importing and air pollution. By determining usage volume of ethanol from information of gasohol production of the Department of Energy Business as table below, it appeared that usage volume of ethanol in 2010 – 2014 had increased continually from 1.23 million liters per day in 2010 to be 3.23 million liters per day in 2014, or compound annual growth rate (CAGR) 27.57% per year. By graph below, however, it seen that usage volume of ethanol had been decreased from 1.23 million liters per day to be 1.02 million liters per day at end of 2011, because government had decided to temporarily not collect to oil fund from benzene 95 and 91, for resolving people's cost of livings. Therefore, retail price of benzene 91 was near to gasohol 95. Some people had returned to use benzene 91 instead of gasohol 95 and domestic gasohol demand had decreased in such period.

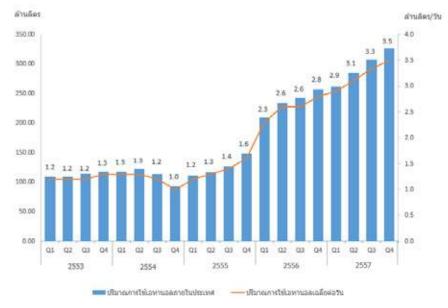
In 2013, domestic ethanol usage had significantly increased from 2012, equals to 88.32% growth. This may be caused by benzene 91 distribution had been cancelled by announcement of the government that effective on 1 January 2013, and manufacturers and fuel traders must distribute benzene 91 out of their stock within March 2013. The people therefore changed to use gasohol instead of benzene 91.

Today, new vehicle which usable E20 and E85 has increased, together with Thai and foreign fuel traders expanded their diffusers cover to nationwide. These are factors to encourage ethanol usage to increased 3.23 million liters per day by average in 2014.

(Unit: million liters) 2010 2011 2012 2013 2014 Ethanol usage 450.15 446.51 503.04 941.76 1,179.63 1.23 2.58 Average ethanol usage a day 1.22 1.37 3.23

Table of Ethanol Usage for Fuel in Year 2010-2014





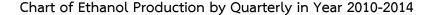
Source: Determined by number of gasohol production, information of Department of Energy

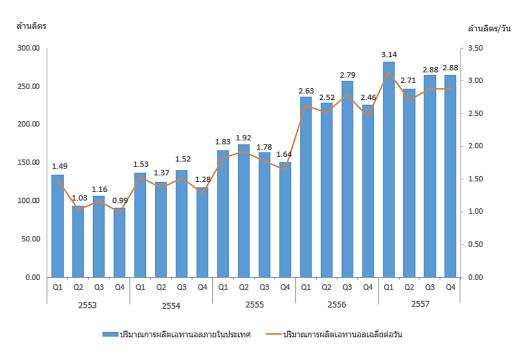
Business, Ministry of Energy

(Unit : million liters)	2010	2011	2012	2013	2014
Ethanol production	425.74	520.51	655.54	949.05	1,058.30
Average ethanol production a day <sup>1)</sup>	1.17	1.43	1.79	2.60	2.90

Table of Ethanol Production in Year 2010-2014

Note<sup>1)</sup> Determined by number of day of each year





Source: Department of Alternative Energy Development and Efficiency, Ministry of Energy

By table of domestic ethanol production and usage below, it shown that, in 2010 Thailand had produced ethanol lower than its demand, caused by ethanol price had decreased at end of year but manufacturing cost had increased at the same time, especially, ethanol by tapioca. Some manufacturers had delayed or stopped their production, because faced with loss. Therefore, different of demand had derived from ethanol stock of entrepreneurs including fuel traders in past year. Thereafter, those situations had been better. Manufacturer had increased their production volume, 520.51 million liters in 2011, increased by 2013 for 22.26%, and 655.54 million liters in 2012, but domestic demand was 503.04 million liters. Thus, in 2011-2012 some ethanol had been exported to abroad. Main markets are Philippines, Singapore, South Korea, Japan, and United Kingdom.

In 2013, ethanol proportional in domestic had increased to 99.23% of produced ethanol. This caused by the government had revoked benzene 91 distribution that effective on 1 January 2013.

Ethanol production volume in 2014 was 89.7% of its domestic demand. This caused by number of new vehicle that usable E20 and E85 fuel had increased, especially gasohol E20, together with fuel station of Thai and foreign traders, expanded their diffusers to cover nationwide. Then, it led ethanol usage increased more.

# Comparison Table of Domestic Ethanol Usage and Production in 2010-2014

(Unit : million liters)	2010	2011	2012	2013	2014
Volume of Domestic Ethanol Usage <sup>1)</sup>	450.15	446.51	503.04	941.76	1,179.63
Volume of Ethanol Production <sup>2)</sup>	425.74	520.51	655.54	949.05	1,058.30

Source: <sup>1)</sup> Determined by number of gasohol production, information of Department of Energy Business, Ministry of Energy

# Situation of Gasohol Industry

Because of ethanol for fuel will be taken to mix with benzene in proportion of 10%, 20%, and 85% to be gasohol E10, E20, and E85 respectively, domestic ethanol demand will be mainly varied by domestic gasohol usage. In the past, domestic gasohol usage had increased constantly from 12.01 million liters per day in 2010 to be 21.94 million liters per day in 2014, or compound annual growth rate (CAGR) 16.32% per year, depended upon number of cars by First Car Project that increased very much, along with new vehicle had usable gasohol mixed more ethanol.

In 2013, average gasohol volume per day had high growth rate at 68.12% when compared with year 2012. This resulted by the government had canceled distribution of benzene 91 and then some people who used benzene 91 needed to change to gasohol. By this reason, demand of gasohol in domestic was increasing by leaps and bounds and continually increasing in year 2014 to be 21.94 million liters per day.

Although situation of world crude oil price that be down continually, including adjusting of energy price structure by government in late of 2014, it resulted to different of retail price of benzene and gasohol had decreased, and consumers changed to use benzene and had effected to target of alternative energy promotion, but the Ministry of

<sup>&</sup>lt;sup>2)</sup> Department of Alternative Energy Development and Efficiency, Ministry of Energy

Energy was still emphasizing on alternative energy, especially gasohol E20, because the markets had availability. Moreover, the Ministry of Energy was still targeting under ethanol usage encouragement and defined operational guideline for 9 million liters usage per day in year 2021.

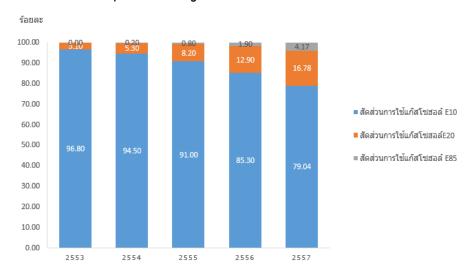
Table of Distribution Volume of Gasohol in 2010-2014

(Unit : million liters)	2010	2011	2012	2013	2014
Gasohol Distribution	4,382.60	4,212.52	4,454.73	7,469.89	8,007.922
Average gasohol distribution a day	12.01	11.55	12.17	20.46	21.94

Source: Department of Energy Business, Ministry of Energy

Besides of domestic distribution volume of gasohol that continually increased, if we considered in proportion of distributing in gasohol with high ethanol such as gasohol E20 and E85, it was increased in same. By information of year 2010, proportion of distribution of gasohol E20 and E85 was totally 3% of all gasohol distribution in Thailand. In 2012, proportion of gasohol E20 and E85 distribution had increased to 8.2% and 0.8% respectively. In 2014, proportion of gasohol E20 and E85 distribution had increased numerously to 16.78% and 4.17%, respectively.

Chart of Proportion Usage of Individual Gasohol in 2010-2014



Source: Department of Energy Business, Ministry of Energy

Causes of proportion of gasohol E20 and E85 had increased significantly is by encouragement of government in any measurement on increasing differ price of gasohol E10 and E20 including subsidy by oil fund and tax privileging for car and motorcycle which usable gasohol E85.

For fuel traders, they had continually expanded fuel station for gasohol E20 and E85. In late of 2008, number of fuel station for gasohol E20 and E85 was 194 and 4 stations, respectively, and gradually increased until there was 2,665 fuel stations for gasohol E20 and 596 stations for E85 in late of year 2014, equals to compound annual growth ratio 65.03% and 448.21% per year.

(Unit : Baht/Liter)	Benzene	Gasohol 95	Gasohol 91	Gasohol E20	Gasohol E85
	95				
To Fuel Fund	9.15	3.25	2.25	0.20	-
Subsidy Ratio	-	-	-	-	8.23
Marketing fee	2.2458	1.2330	1.2251	1.0495	2.6091
Retail Price	36.26	29.70	28.38	26.98	23.48

Source: Fuel Price Structure on 23 February 2015

# Situation of Molasses Industry

Molasses is by product of sugar cane transformation in sugar factory. A metric ton of sugar cane will be obtained 45-50 kilograms of molasses or 4.50%-5.00% of milled sugar cane. In Thailand, season of sugar cane milling is between November and May of next year. Following information was quantity of sugar cane into milling and molasses obtained in year 2009/2010 to 2013/2014;

Season	No. of Sugar	Average	No. of Sugar Cane	No. of Produced
	Cane	Product	to Mill	Molasses
	Cultivation	(Metric	(Million Metric Ton)	(Million Metric Ton)
	(Million Rai)	Ton/Rai)		
2009/2010	7.13	10.21	68.49	2.98
2010/2011	8.46	11.75	95.36	4.24
2011/2012	9.00	11.82	97.98	4.39
2012/2013	9.25	11.35	100.00	4.55
2013/2014	10.08	11.24	103.67	4.29

Source: Office of Sugar Cane and Sugar Committee

In production year 2010-2011, sugar cane cultivation area was significantly increased by year 2009/2010 from 7.13 million Rai to be 8.46 million Rai, caused by some agriculturists changed their farms from tapioca to sugar cane because of better yields, together with stopping of mealy bug spreading. Moreover, rain volume and weather were also bestead to sugar cane cultivation, and led to be yielded up to 11.75 metric tons per Rai and there were sugar canes to milling about 95.36 million metric tons, in which obtained molasses 4.24 million metric tons, equals to growth ratio 42.28%.

Production year 2011/2012, sugar cane cultivation area increased from previous year 0.54 million Rai to be 9.00 million Rai, equals to 6.38% growth ratio. Now, price of sugar cane had increased together with agriculturists who planted tapioca had changed to cultivate sugar cane for resolving spread mealy bug in some area. By this, there were 97.98 million metric tons of sugar cane to milling and 4.39 million metric tons of molasses obtained.

Year 2012/2013, average cultivation area of sugar cane was nearly to previous year, by increased from 9.00 million Rai to be 9.25 million Rai, equals to 2.84%. Yield per Rai had decreased from 11.82 metric tons per Rai to be 11.35 metric tons per Rai. This led to sugar cane increased insignificantly from 97.98 million metric tons to be 100.00 million metric tons and obtained molasses 4.55 million tons.

In year 2013/2014, total cultivation area of sugar cane increased to 10.08 million Rai, by 0.59 million Rai from year 2012/2013 or 6.23%, caused by price of sugar cane had increased along with rain volume and weather were bestead to cultivating sugar cane all along this season.

#### Competitive Condition

Today, in Thailand, there are 21 ethanol factories with totally capacity 4,190,000 liters per day. We may separate by raw material as following;

- 1. Manufacturer who produced ethanol by molasses are 10 factories with total capacity 1,980,000 liters per day;
- 2. Manufacturer who produced ethanol by molasses and tapioca are 4 factories with total capacity 700,000 liters per day;
- 3. Manufacturer who produced ethanol by tapioca are 6 factories with total capacity 1,280,000 liters per day;
- 4. Manufacturer who produced ethanol by cane juice is 1 factory with total capacity 230,000 liters per day.

In addition, 3 ethanol factories are under construction with total capacity 1,370,000 liters per day. If those factories have completed, ethanol productivity will be increased to 5,560,000 liters per day.

# Available Ethanol Factories

	Ethanol Factory	Province	Capacity (Liter/day)	Raw Material	
1	Thai Agro Energy PCL, Phase 1	Suphan Buri	150,000	Molasses	
2	Khon Kaen Alcohol Co., Ltd.*	Khon Kaen	150,000	Molasses	
3	Khon Kaen Alcohol Co., Ltd. (Bor Phloi) *	Kanchanaburi	200,000	Molasses	
4	Thai Sugar Ethanol Co., Ltd.*	Kanchanaburi	100,000	Molasses	
5	KI Ethanol Co., Ltd.*	Nakhon	100,000	Molasses	
		Ratchasima			
6	Petrol Green Co., Ltd. (Kalasin) *	Kalasin	230,000	Molasses	
7	Mitrphol Biofuel Co., Ltd. (Chaiyaphum) *	Chaiyaphum	500,000	Molasses	
8	Eakrat Phatthana Co., Ltd.*	Nakhon Sawan	230,000	Molasses	
9	Thai Rungrueng Energy Co., Ltd.*	Saraburi	120,000	Molasses	
10	Mitrphol Biofuel Co., Ltd. (Dan Chang) *	Suphan Buri	200,000	Molasses	
11	Mae-Sot Clean Energy Co., Ltd.*	Tak	230,000	น้ำอ้อย	
12	Ratchaburi Ethanol Co., Ltd.*	Ratchaburi	150,000	Tapioca	
				Chip/Molasses	
13	ES Power Co., Ltd.*	Sra Kaeo	150,000	Tapioca	
				Chip/Molasses	
14	Thai Alcohol PCL *	Nakhon Pathom	200,000	Tapioca	
				Chip/Molasses	
15	Thai Agro Energy PCL, Phase 2	Suphan Buri	200,000	Tapioca	
				Chip/Molasses	
16	Sap Thip Co., Ltd.	Lopburi	200,000	Tapioca Chip	
17	Tai Ping Ethanol Co., Ltd.	Sra Kaeo	150,000	Fresh Tapioca	
18	PSC Starch Production Co., Ltd.	Chon Buri	150,000	Tapioca Chip	
19	Thai Ethanol Power PCL	Khon Kaen	130,000	Fresh Tapioca	
20	Double A Ethanol Co., Ltd., Phase 1	Prachin Buri	250,000	Fresh Tapioca	
21	Ubon Bio Ethanol Co., Ltd.	Ubon Ratchathani	400,000	Fresh Tapioca	
				/Tapioca Chip	
	Total Present Capacity				

Source: Department of Alternative Energy Development and Efficiency, Ministry of Energy, on January 2014

Note: \* Being ethanol factory who is in group of sugar factory entrepreneur



#### Ethanol Factories which are under construction

Ethanol Factory	Province	Capacity (Liter/day)	Raw Material	
1 TPK Ethanol Co., Ltd., Phase 1	Nakhon	340,000	Tapioca Chip	
	Ratchasima			
TPK Ethanol Co., Ltd., Phase 2, 3	Nakhon	680,000	Tapioca Chip	
	Ratchasima			
2 Sima Inter Products Co., Ltd.	Chachoengsao	150,000	Fresh Tapioca	
3 Impress Technology Co., Ltd.	Chachoengsao	200,000	Fresh Tapioca/Tapioca	
			Chip/Molasses	
Total	1,370,000			

Source: Department of Alternative Energy Development and Efficiency, Ministry of Energy, on January 2014

As domestic demand in ethanol was still lower than total capacity, in 2014, ethanol had produced totally 1.79 million liters per day, but domestic usage demand was only 1.37 million liters per day. This had oversupply which needed to export to abroad. With these reasons, ethanol industry has been separated into 2 markets, namely, domestic market and international market. Normally, domestic price of ethanol is higher than export price. By this, if referred to report of domestic ethanol situation in December 2013 of the Bank of Thailand, found that, Anhydrous ethanol price in Brazil was 0.61 US dollars per liter or 20.02 Baht per liter (referred to exchange rate on 27 December 2013 at 1 US dollar equal to 32.82 Baht). In the same time, domestic ethanol price was 27.16 Baht per liter. As domestic ethanol price higher than export price, most manufacturers then competed to develop their products and services to maintain and increase their market share.

In our part, we distributed all ethanol to large domestic oil traders by emphasizing on manufacturing technology development for high quality ethanol and most efficient cost management. If compared our ethanol sale volume with domestic ethanol usage which determined by information of Department of Energy Business, Ministry of Energy, it seen that we had market shares increasingly from 7.37% in 2010 to be 10.29% in 2011, 13.33% in 2012, and 7.12% in 2013. Our market share of year 2013 had decreased because domestic usage demand in ethanol increased by year 2012 up to 87.21% resulted by government had

canceled distributing benzene 91 which effective on 1 January 2013, but we had ethanol sale volume same to year 2012.

Our market shares had increased continually since year 2010 from 7.37% to be 13.33 in 2012, but in 2013 had decreased to 7.12% because usage demand in ethanol had increased numerously. However, we planned to produce ethanol full capacity in both production lines since year 2014. This will caused us to have more market shares.

Year	Total Domestic Usage	Sale Volume of Our	Our Market Shares	
	Volume of Ethanol <sup>1)</sup>	Denatured Ethanol	(Percentage)	
	(Million Liters)	(Million Liters)		
2010	450.15	33.19	7.37	
2011	446.51	45.93	10.29	
2012	503.04	67.05	13.33	
2013	941.76	67.06	7.12	
2014	1,179.63	97.80	8.29	

Source: Determined by number of gasohol production, information of Department of Energy Business,

Ministry of Energy

# 2.2.6 Controlling of Government in Ethanol Industry

Business in manufacturing and distributing ethanol for fuel is governed by any authorities that will control and make related policy which are summarized as following;

# 1. Manufacturing and Distributing Ethanol

For same standard in licensing of ethanol factoring, after Council of Ministers, on 12 December 2006, had accepted in policy of freely-manufacturing distilled liquor over 80% alcohol vol. (Ethanol) to mix with fuel to be fuel, the Ministry of Finance then issued announcement in Management of Distilled Liquor over 80% alcohol vol. (Ethanol) for Fuel B.E.2550 on 24 September 2007. Such announcement has specified procedure and method of licensing of ethanol factoring, manufacturing and distributing ethanol, along with manufacturing and distributing ethanol which controlled by the Excise Department.

Besides, the Ministry of Energy had issued announcement on 21 January 2005 to specifying that ethanol for fuel of engine may be used directly or mix with fuel to be fuel under the Fuel Trading Acts B.E.2543. Therefore, for distributing ethanol for

fuel, manufacturers and distributor in ethanol that used to be fuel need to register to be fuel trader under Section 7 or 10, as the case may be, against the Department of Energy Business.

- Fuel trader under Section 7 means fuel trader who have trade each fuel or collectively since 100,000 metric tons and up per year;

- Fuel trader under Section 10 means fuel trader who have trade each fuel or collectively less than 100,000 metric tons but not lower than 30,000 metric tons (about 36 million liters) or fuel trader who have storage tank for each fuel or collectively exceeded 200,000 liters.

# 2. Specification and Quality of Ethanol

For encouraging ethanol to use commercially and making confidence to consumers, Department of Energy Business then specified characteristic and quality of denatured ethanol for mixing with fuel to be gasohol, by announcement of Department of Energy Business on Specifying Characteristic and Quality of Denatured Ethanol B.E.2548 on 11 July 2005.

# 3. Exempt in Excise Tax

For encouraging manufacturing and using ethanol to be fuel, government, by Excise Department, had issued announcement in exempt to not collect liquor tax for distilled liquor over 80% alcohol vol. (Ethanol) which used to mix with fuel to be fuel, on 25 February 2005. Applicant for this tax exempt need to install electronic database system and prepare any report as the Excise Department may specify.

# 2.3 Products Procurement

# 2.3.1 Manufacturing

Our ethanol factories located at No. 9, village No. 10, Danchang-Samchuk road, Nong Makhamong sub-district, Danchang district, Suphanburi province, on 1,400 Rai area. We have 2 production lines with MAGUIN INTERIS Technology, France, which be accepted by worldwide ethanol manufacturers. Generally, MAGUIN technology distinguishes in Cascade Continuous and Two-columns Distillation. Moreover, company's manufacturing processes have been certified by ISO 9001:2008 for quality management system and ISO 14001:2004 for environment management standard, by UKAS, United Kingdom.

Description	Line 1	Line 2		
Raw Material	Molasses	Molasses or Tapioca		
Capacity	165,000 Litres per day	200,000 Litres per day		
Commencement Date	31 January 2005	2 April 2012		

Today, our 2 production lines have already operating commercially. Production line 1 uses only molasses to be raw material and started commercially operating on 31 January 2005. Production line 2 is selectable raw materials as molasses or tapioca, and started commercially operating on 2 April 2011, but now uses only molasses to be raw material, because on May 2014, we were improving (Performance Test) its manufacturing process in part of tapioca chips preparation. We expected that it would manufactured by tapioca chips in 2<sup>nd</sup> quarter of year 2014. However, main factor of raw material considering for production line 2 is manufacturing cost and our plan.

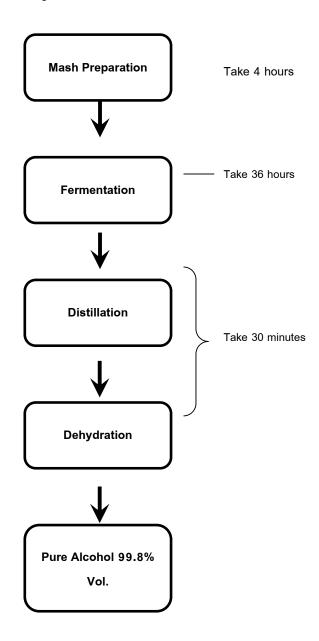
2.3.2 Capacity

	2010	2011	2012		2013	
	Production	Production	Production	Production	Production	Production
	Line 1	Line 1	Line 1	Line 2	Line 1	Line 2
Installed Capacity	54,750,000	54,750,000	54,750,000	50,800,000*	54,750,000	66,000,000
Actual Production	33,701,762	45,550,000	25,214,845	40,332,338	2,084,071	65,032,610
% of Capacity	61.56	83.20	46.05	79.39	3.81	98.53
Total Installed Capacity	54,750,000	54,750,000	105,550,000		120,750,000	
Total Actual Production	33,701,762	45,550,000	65,547,183		67,116,681	
% of total Installed Capacity	61.56	83.20	62.10		55.58	

Note : Production Line 2 commenced on April 2012

# 14

### 2.3.3 Manufacturing and Production Processes



Our manufacturing processes have been divided into 4 processes, as;

### 1. Mash Preparation Process

Before taking to fermentation process, molasses that transmitted from storage will be prepared by dilution with water to be proper concentration and filling acid, which is surfactant, to precipitate organic salt.

### 2. Fermentation Process

A part of diluted molasses will be sent to yeast preparation process for using in fermentation process, by filling nutrient, acid, and air, which necessary to yeasts growing. Thereafter, proper cultured yeasts in Prefermenters will be delivered to Fermenters together with another part of diluted molasses. Company's fermentation process is Cascade Continuous system by passing through 6 fermentation tanks. Each tank has loop pump and water cooling system to stabilize temperature of fermentation tanks. This will take approximately 36 hours to converting sugar to alcohol. After that, fermented mash will be sent to buffer tank and waiting for distilling. By this process, percentage of alcohol by volume is 9-10%.

### 3. Distillation Process

Alcohol that fermented in buffer tank will be pumped to first distillation plant that alcohol will be separated by distillation at pressure level lower than atmospheric pressure. When vaporized alcohol moved from first distillation plant pass through cooling system, and then it will condense to be pure alcohol at 50% by volume and be pumped to second distillation plant to increase its pure level by distilling at pressure level higher than atmospheric pressure that will derive pure alcohol at 92% by volume. Thereafter, vaporized alcohol from second distillation plant will be transported to dehydration process.

By this process, we will derive Fusel Oil as by products and may utilize in any industry – such as perfume, resin and plastic, lacquer, and ink. Moreover, spent wash will be sent to treat at biogas system.

### 4. Dehydration Process

Alcohol will be dehydrated to derive pure alcohol at 99.8% by volume. In this process, vaporized alcohol will pass through 2 of dehydration units which contained with Zeolytes to absorb water from vaporized alcohol, and then dehydrated alcohol will be distilled and cooled down before move to storage tank. We have four ethanol storage tanks, total capacity 4,500,000 liters. Each storage tank has filled nitrogen instead of air, called "Nitrogen Blanketing", to maintain quality of ethanol and waiting to distribute to customers.

### 2.3.4 Raw Materials Procurement

### 1. Molasses

Our main material for producing ethanol is molasses which were 86.47%, 83.68%, 78.82%, and 85.22% of manufacturing cost in year 2010-2014, respectively. We purchased all molasses from domestic manufacturers and/or distributors. We would negotiate to purchase molasses to manufacturers and/or distributors before beginning of sugar cane milling season, because of molasses is by product of sugar production, thus, quantity of molasses is depending on quantity of sugar cane milling in the season. Therefore, for reducing our risk by insufficient molasses to produce ethanol under its plan, we then had entered into

future purchasing molasses agreement with manufacturers and/or distributors. We had planned certain molasses quantities and its schedules. In past 4 years ago, we mostly purchased molasses from Mitrphol Sugar Co., Ltd. ("Mitrphol"), 40.95% in 2010, 45.06% in 2011, 84.40% in 2012, and 53.65% in 2013, because Mitrphol's factory is near to our factory. Transportation cost was included in purchased price. So, nearing factory would help to safe molasses cost (included transportation) anyway. We have entered 15-years molasses purchasing agreement with Mitrphol Sugar Co., Ltd. for 200,000 metric tons per year, since 2005 to 2019, and will re-determine its price every 5 years for main agreement and every 1 year for supplementary agreement.

Whether we purchased molasses from one manufacturer only, as Mitrphol, because they are large manufacturer and located near to our factory that helped to reduce transportation cost, we also purchased molasses from other 7 manufacturers and/or distributors to maintain good relationships and reduce a risk by relying on a few manufacturer and/or distributor. We also had entered into long-term agreement for molasses purchasing with others – as Nakhon Petch Sugar Co., Ltd. and Mitr Kaset Uthai Thani Co., Ltd. – for 5 years, since 1 January 2014 to 31 December 2018.

In most our molasses purchasing, seller have to deliver molasses o our factory. However, there is some seller that we have to receive molasses at seller's factory. In this case, we will hire carrier to transport molasses from seller's factory to our factory. In transportation agreement between us and carrier will specified expressly that; carrier shall responsible in any and all damages that may occurred by contamination, deterioration, or loss of products during transportation and damages by accident, whether such contamination, deterioration, or lost occurred by whatsoever reason.

In 2014, we were still using molasses to be main raw material for ethanol production. On 31 December 2013, we purchased molasses for production in 2014 equals to 72.94% of total required molasses.

### 2. Chemicals

Other than molasses that is our main raw material, we are also using any chemicals in ethanol production processes. In 2010-2013, cost of chemicals was 0.90%, 1.17%, 1.68%, and 2.08% of manufacturing cost. Chemicals we used in our production processes are yeast, urea, Diammonium Phosphate, Anti-Foam, Sulfuric Acid, etc., which purchased only from domestic manufacturers and/or distributors. As we preferred to products quality, we then emphasized to purchase choice raw materials from potential manufacturers

and/or distributors and deliverable under our schedule completely. Approved Vendor List has been provided to screen quality manufacturers and/or distributors, which have been evaluated 2 times a year by their qualities and delivery historical.

For chemicals purchasing, we would considered in specified minimum stock, if lower to minimum size, ERP system will alert to related person to order more chemicals. This system will help us to manage raw material efficiently and proper quantity.

### 3. Tapioca Chips

Factor of raw material selection for ethanol production line 2 depends on manufacturing costs and our production plan. We have choices for raw material, that led us to manage manufacturing cost more efficient including reduce a risk of relying on only molasses. Therefore, we are selectable lower cost raw material for ethanol production.

By this, we have prepared to produce ethanol by tapioca chips and have policy to procure tapioca chips from surrounding province such as Kanchanaburi, Uthai Thani, Nakhon Sawan, and Kamphaeng Petch, which there are numerous cultivation field of tapioca. For tapioca chips purchasing, we will survey tapioca field to ensure that such field has potential to produce tapioca chips according to our requirements. Sample will also be randomized to test its quality all time before purchasing. Moreover, before each receiving of tapioca chips, we will check quality of those tapioca chips that meet with our specification or not, if not, we will denied receiving such delivery, to ensure in its quality and suitable to our ethanol production processes.

### 3. Risk Factors

Thai Agro Energy Public Company Limited ("TAE") is operating in ethanol production for mixing with benzene in any proportion to be gasohol E10, E20, and E85 for use as vehicle fuel, and having risk evaluation and management to prevent and reduce any effects that may occurred as following;

### (1) Risk of Government Policy

National Energy Policy Council (NEPC) accepted in fuel price restructuring under following scopes and guidelines; 1) energy price must reveals actual cost, 2) fuel price for transportation should has similarly, 3) fuel fund has tasked to maintain price stability and encourage alternative energy, 4) reduce cross subsidy, 5) average of marketing margin of diesel and benzene traders should be suitably and fairly which National Energy Policy Council (NEPC) will set to proper level and reveals actual cost, 6) assist low-income group and able to take such taxes to develop infrastructure and utilities that be affected by fuel using.

By adjusting oil fund remittance of benzene and diesel at 1 Baht per liter and 30 Satang per liter, it resulted to reducing in retail price of benzene 2 Baht per liter and diesel 1 Baht per liter. In the same time, retail price of gasohol E85 reduced only 20 Satang per liter, because had not adjusted its subsidy.

As fuel price restructuring together with low price of world crude oil, different of fuel retail price are below table.

	Fuel Retail Price	Price differ when	Fuel Retail Price	Price differ when
	On 16 Dec. 2014	compared with ULG	On 29 Jan. 2015	compared with ULG
	(Baht per liter)	(Baht per liter)	(Baht per liter)	(Baht per liter)
ULG	37.36	-	33.96	-
GASOHOL95 E10	30.30	7.06	26.90	7.06
GASOHOL91	28.28	9.08	25.58	8.38
GASOHOL95 E20	26.98	10.38	24.18	9.78
GASOHOL95 E85	22.48	14.88	21.68	12.28

We seems that different retail price of gasohol 91, E20, and E85 compared with benzene 95 on 29 January reduced from 16 December 2014, especially, gasohol E85 that its different reduced 17% until not induced to use gasohol E85 and affected directly to domestic usage demand.

In case quota of ethanol from tapioca and molasses, today, it is only requesting for cooperation of fuel traders, but not regulation. The ministry of energy needs to use market force to approach between ethanol prices of both raw materials. But if the government not executes such regulation, it is assumed that ethanol manufactures from molasses have been blocked to penetrating their domestic market. TAE has to manage manufacturing and distributing for most efficiency by focuses on product quality and customer relationship to ensure in customers maintaining.

### (2) Risk of Main Raw Material for Ethanol Production

Caused by today TAE is using molasses to be main raw material for ethanol production, 80% of total manufacturing cost. Therefore, volume of molasses in each year,

including varied price by demand and supply of world market occasionally, had affected to distribution volume of ethanol and TAE's manufacturing cost directly. Moreover, because molasses are agricultural yields that out of control by TAE, along with weathers and epidemics, these are risks that may occur at all time.

Ethanol factory, production line 2, is usable either starch and sugar material. This is more flexible to manage raw material for highest efficiency. In addition, there is policy in long-term purchasing agreement with supplier, including purchasing molasses from others sugar factory and/or distributor to reduce dependency on only a distributor. It is to reduce risk of material procurement also.

### (3) Risk of Relying on Large Customer

As the Excise Department has specified TAE to distribute ethanol for fuel to fuel traders under Section 7 of the Fuel Trading Acts B.E.2543, now have 12 traders, which is oligopsony. This resulted to large purchaser or high demand purchaser has bargaining power both its price and purchasing conditions. In 2014, TAE had distributed denatured ethanol to big customer – as PTT PCL and Bangchak Petroleum PCL – for 67% of total distribution volume. If TAE loss big customer or its purchasing volume reduced, it may affects to future TAE's income.

TAE emphasized on maintaining relationship of existed customers and attempted to reduce dependency of a customer specially, by penetrating to more other customers to achieve its target with best condition and price.

# (4) Risk of Using Biogas to be Main Fuel for Stream Producing Used in Production Processes

Currently, TAE used biogas, instead of bunker oil, to be main fuel for producing stream and electric for ethanol production processes, in which assisted TAE to safe such fuel cost. Today, TAE is able to produce biogas total 142,000 cubic meters per day. If we considered in our full capacity of both production line, TAE needs biogas totally 126,000 cubic meters per day. This is shown that TAE's biogas production has enough for stream and electric producing of all ethanol manufacturing processes. TAE is now able to produce electric by biogas for 3 megawatts.

However, TAE may be risk in inability to produce biogas for all manufacturing processes, caused by natural disasters such as storm, which TAE's biogas plant may be damaged – for instance; plastic cover of biogas plant torn that led to leakage or suspension

of its production – and TAE needs to use other fuel instead such as bunker oil, palm kernel shell, etc. which expensive than, in which affected to manufacturing cost and outcome of TAE.

TAE was aware in this risk, and then improved structure of biogas plant to more strength and established a unit to maintain all system of biogas production, by closely maintaining its procedure and always maintenance and fix any devices, to ensure that biogas production process of TAE is continuously produce with highest efficiency.

### (5) Risk of Environmental Effects

TAE became aware of environment, including air, waste water, and noise pollution. TAE had always strictly checked quality of air and noise to be under standard or regulations of related authorities. For spent wash which occurred by ethanol distillation process, TAE had policy to treat such spent wash by treatment system and not discharge treated water to public area or aqueduct, as called "Zero Discharge."

In the past, TAE had not been litigated or fined in any environmental problems because TAE emphasized on environments and all pollutions that may occurred by manufacturing processes. In addition, in 2009, TAE had been certified in environment management, ISO 14001:2004, which proofed that TAE has good environment management system and regularly maintain manufacturing processes, including operation measurement for environment to reduce or prevent any effects to environment, according to related standards.

# (6) Risk of Liquidity in case Company Could not comply with obligation of loan agreement of financial institution

As we had entered into loan agreements with commercial banks which had conditions to comply with all along period of those agreements. If not, we may be demanded by banks to return those amounts immediately. This will be effects to our liquidity. Important conditions of loan agreement are following;

# (6.1) Maintaining Debt to Equity Ratio and Debt Service Coverage Ratio (DSCR) as required by commercial banks

By our investment in construction of ethanol factory, production line 2, we had loaned from commercial bank 1 on September 2009 – long-term loan 900 million Baht and short-term loan in promissory note 150 million Baht. Those loan agreements have important conditions in maintaining on financial ratio which we have to comply with thorough its period, namely, we have to maintain Debt to Equity Ratio to not exceed 1.50 times and Debt Service Coverage Ratio (DSCR) to not lower than 1.50 times, unless derived prior exception in written by the bank.

THAI AGRO ENERGY PUBLIC COMPANY LIMITED ANNUAL REPORT 2014

In past year, we could not maintain those ratios according to its conditions, as table below that shown our Debt to Equity Ratio and Debt Service Coverage Ratio. This may be reason of default of those loan agreements and banks may demand us to return whole amounts promptly, in which may affects to our financial liquidity and business operation.

Type of Ratio	Bank Rule	2012	2013	2014
Debt to Equity Ratio <sup>1)</sup> (times)	Not exceed 1.50	1.23	-	-
Debt to Equity Ratio <sup>1)</sup> (times)				
(Refinance)	Not exceed 2.00	-	1.62	1.10
Debt Service Coverage Ratio <sup>2)</sup> (times)	Not lower than	1.31	-	-
Debt Service Coverage Ratio <sup>2)</sup> (times)	1.50			
(Refinance)		-	1.14	1.65
	Not lower 1.25			

### Note:

- 1) Debt to Equity Ratio was determined by total debts divided by shareholders' equity
- 2) Debt Service Coverage Ratio (DSCR) was determined by profit before interest, tax, depreciation, and special item divided by long-term loan that reach due in 1 year included paid interest of short- and longterm loan

It is shown that; we was able to maintain Debt to Equity Ratio as specified in loan agreement since 2012, but for Debt Service Coverage Ratio (DSCR), Commercial Bank 1 had specified to be exceeded 1.50 times, which we could not maintain such ratio as loan agreement required. DSCR determined by financial statement year 2012 and first 9 months of year 2013 was 1.31 times and 1.01 times, respectively. We always issued notice to Commercial Bank 1 for exception to comply with condition in maintaining Debt to Equity Ratio and Debt Service Coverage Ratio. Commercial Bank 1 had considered and accepted to except to maintaining DSCR at least 1.50 times for 3<sup>rd</sup> quarter financial statement year 2013, that effective on 30 September 2013. However, Commercial Bank 1 specified us to maintain DSCR at least 1.5 times in next quarter and thorough remained period of agreements.

Latterly, on 18 December 2013, we had refinanced loan of Commercial Bank 1 by loaned from Commercial Bank 2 to return all debts to Commercial Bank 1. Moreover, we also had received short-term loan in promissory note from Commercial Bank 2 in amount of 900 million Baht for purchasing raw materials. Commercial Bank 2 has specified us to maintain Debt to Equity Ratio not exceed 2.00 times and Debt Service Coverage Ratio (DSCR) not less than 1.25 times. We still could not maintain DSCR as specified by loan agreement. DSCR determined by financial statement year 2013 was 1.14 times. We then issued notice to Commercial Bank 2 for exception to comply with condition in maintaining DSCR. On 27 December 2013, Commercial Bank 2 had considered and accepted to except to maintain DSCR for financial statement ended 31 December 2013, and specified to maintain DSCR not less than 1.25 times in next year and thorough remained period of agreement. However, to reduce risk in inability to comply with condition specified in loan agreement with Commercial Bank 2, we then issued notice for exception to comply with condition in maintaining DSCR, and we already received exception. The bank has decreased condition to maintain DSCR for year 2014 to be not less than 1.10 times and 1.25 times for year 2015 and go on, in which will be considered by quarterly financial statement.

Thorough the past, we always had been supported in financial by such commercial bank. And after Commercial Bank 2 reduced condition to maintain DSCR, company's executives ensured to maintain such ratio as specified by the bank. As seen DSCR of financial statement year 2013 was 1.14 times, higher than condition of bank. Additionally, we aim to bring money from share offering to repay bank loan which help to have more DSCR and be under condition of bank. Moreover, share offering to public also caused to increasing in shareholders' equity and decreasing in Debt to Equity Ratio. Besides, after entering into listed company in Stocks Exchange of Thailand, we could fundraise by issuing equity instruments, in which help us to have more ability to loan from financial institute including have capital structure more suitable.

# (6.2) Maintaining in Proportion of Shareholding of Lanna Resources PCL not less than 50% of total shares thorough loan period

By loan agreement with Commercial Bank 2, there is condition in proportion of shareholding of Lanna Resources PCL ("LANNA") not lower than 50% of total shares thorough loan period. Although all shares held by LANNA have been suspended for 12 months since the date company's shares began trading in SET, but 6 months after such trade beginning date, 25% of LANNA's suspended share will be able to sell and after 12 months for remained 75%. Therefore, we have risk to default condition under loan agreement with Commercial Bank 2 that all company's loan of such bank may be demanded and affects to company's liquidity and business operation, if LANNA discharged their shares and proportion of shareholding less than 50% of total shares.

We became aware of such risk, the management department had reported to Board of Directors of LANNA to known in condition that LANNA needed to keep proportion of shareholding. If LANNA plans to reduce proportion of shareholding, LANNA will report company in advance to negotiate with Commercial Bank 2 in condition of loan agreement.

### (6.3) Prior Written Allowing from Commercial Bank 2 for Increasing Debt

By loan agreement with Commercial Bank 2, there is condition in prior written allowing from Commercial Bank 2 for increasing debt, which may affects to could not loan from other commercial bank in the future and to company's liquidity, including may be dependency on one commercial bank only. This cause us to have be risked if could not be supported in financial by such commercial bank.

We became aware of such risk. Thus, by negotiating to refinance from Commercial Bank 1 to Bank 2, we had requested short-term loan in promissory note from Commercial Bank 2 more 900 million Baht for purchasing raw materials. We deem that such short-term loan is sufficient to be working capital in company's business. Moreover, now we also have short-term loan for working capital from Commercial Bank 1 for 200 million Baht.

### (7) Risk of unable to dividend to shareholders in the future

By loan agreement with Commercial Bank 2, there is condition that we could not dividend to shareholders if we are unable to comply with any condition of loan agreement. Thus, in the future, if we could not comply with condition of loan agreement of Commercial Bank 2 – such as maintaining D/E ratio, DSCR ratio, proportion of shareholding of LANNA, etc. – we will not able to dividend to shareholders.

By this, we could not maintain DSCR as specified in conditions of loan agreement. DSCR determined by financial statement year 2013 was 1.14 times. We issued notice for exception in complying with condition in maintaining DSCR. On 27 December 2013, Commercial Bank 2 had considered and accepted to exempt to maintain such ratio for financial statement ended 31 December 2013 and specified that we have to maintain DSCR not less than 1.25 times in next quarter and thorough remained period of agreement. However, to reduce risk of unable to comply with condition of loan agreement of Commercial Bank 2, we therefore requested Commercial Bank 2 to exempt condition in maintaining DSCR, and we had been exempted already. The bank had adjusted condition of maintaining DSCR for year 2014 to be 1.10 times. If considered financial statement year 2014 will seem that; company could maintain such ratio as the Bank specified.

### (8) Risk of company's interpretation

We are litigant in a lawsuit with a company. On 23 September 2011, such company (as "Plaintiff") had sued against the Civil Court and claimed that we (as "Defendant") had not complied with tapioca chips purchasing agreement and memorandum of understandings, and claimed damages from us for 186.85 million Baht. Latterly, on 8 November 2011, we had submitted answer and counterclaim with damage 82.41 million Baht against such company.

On 9 October 2014, the Southern Bangkok Civil Court had decided to dismiss this case and ordered such company to repay us 6.87 million Baht with its interest 7.50% annum since 8 November 2011 until completely paid, and ordered such company to pay any court fee and 0.03 million Baht of attorney fee to Defendant. On 3 December 2014, we had appealed already.

### 4. Properties Used in Business Operations

### 4.1 Description of Properties Used in Business Operations

On 31 December 2014, company has following properties to operate our business;

Type/Nature of Assets	Type of	Encumbrance	Net Book Value
	Proprietorship	On 31 Dec. 2014	On 31 Dec. 2014
			(Million Baht)
Land for agriculture and solarise, Nong	Owner	Mortgaged to commercial	65.14
Makhamong, Danchang, Suphanburi,		bank	
total 875-3-73 Rai		-	30.59
Land for biogas plant 3, Nong	Owner	Mortgaged to commercial	1.17
Makhamong, Danchang, Suphanburi,		bank	
total 12-3-28 Rai		-	0.78
Land for storage pond of spent wash,	Owner	Mortgaged to commercial	13.05
Nong Makhamong, Danchang,		bank	
Suphanburi, total 128-3-63 Rai			
Land for storage pond of water, Nong	Owner	Mortgaged to commercial	4.42
Makhamong, Danchang, Suphanburi,		bank	
total 42-3-72 Rai			
Land for truck parking, Nong	Owner	Mortgaged to commercial	24.82
Makhamong, Danchang, Suphanburi,		bank	
total 234-3-50 Rai		-	0.18
Land production line 2 and biogas	Owner	Mortgaged to commercial	8.22
plant 4, Nong Makhamong, Danchang,		bank	
Suphanburi, total 83-1-16 Rai			

Type/Nature of Assets	Type of	Encumbrance	Net Book Value
	Proprietorship	On 31 Dec. 2014	On 31 Dec. 2014
			(Million Baht)
Land production line 1, Nong	Owner	Mortgaged to commercial	10.63
Makhamong, Danchang, Suphanburi,		bank	
total 103-1-17 Rai			
Land Improvement	Owner	-	56.79
Machineries and Equipment	Owner	Mortgaged to commercial	1,354.70
		bank	
Building and Construction	Owner	-	201.94
Office Equipment	Owner	-	4.27
Vehicle	Owner	-	6.68
Assets under construction and	Owner	-	589.51
installation			
รวม			2,372.89

### 4.2 Molasses Purchasing Agreements

Contract Party : Mitrphol Co., Ltd. ("Definitive Agreement")

Contract Date : 28 May 2003

Nature of Contract : Seller agreed to sell molasses to purchase 120,000 metric tons

per year and will be pricing every 5 years

Contract Period : 2005 – 2019

Delivery : Seller deliver molasses to purchaser at purchaser's factory

Fine : If seller could not procured molasses to purchaser with agreed

quantity, seller shall provide or purchase molasses from other to deliver to purchaser completely with specified quantity and price. In case seller could not procured molasses to purchaser, seller shall return deposit for molasses price in part of procured by purchaser including molasses price that exceed to agreed price caused by purchaser needed to procure molasses by

himself and other actual damages also.

Reasons of : In case purchaser's factory need to stop or close or reduce

Termination working time more than a half of normal by whatsoever reason

that purchaser could not receive molasses from seller according

to obligation of agreement without seller's default for 45 days

consecutively, unless force majeure such as war, riot, revolution,

natural disaster, storm, flood, lock out, or others force majeure, this molasses purchasing agreement shall be terminated immediately without notice and all molasses price that purchaser paid already shall be belonging to seller immediately.

Contract Party : Mitrphol Co., Ltd. ("Supplementary Contract")

Contract Date : 28 May 2003

Nature of Contract : Seller agree to sell molasses to purchaser more 80,000 metric

tons per year and will be pricing every year

Contract Period : 15 years since 2005 to 2019

Others Condition : Same as Definitive Agreement

Contract Party : Nakhon Petch Sugar Co., Ltd.

Contract Date : 1 August 2013

Nature of Contract : Company will purchase molasses from seller in agreed quantity

Contract Period : 5 years since 1 January 2014 to 31 December 2018

Delivery : Seller will delivery to purchaser's factory

Contract Party : Mitr Kaset Uthaithani Co., Ltd.

Contract Date : 1 August 2013

Nature of Contract : Company will purchase molasses from seller in agreed quantity

Contract Period : 5 years since 1 January 2014 to 31 December 2018

Delivery : Seller will delivery to purchaser's factory

### 5. Legal Controversy

### Summarization

On 23 September 2014, a company (as "Plaintiff") had sued against the Civil Court and claimed that we (as "Defendant") had not complied with tapioca chips purchasing agreement dated 21 January 2014 and memorandum of understandings dated 29 April 2014, and claimed damages from us for 186.85 million Baht. Latterly, on 8 November 2011, we had

submitted answer and counterclaim with damage 82.41 million Baht against such company. On 9 October 2014, the Southern Bangkok Civil Court had decided to dismiss this case and ordered such company to repay us 6,869,477.50 Baht with its interest 7.50% annum since 8 November 2011 until completely paid, and ordered such company to pay any court fee and 30,000 Baht of attorney fee to Defendant.

Subsequently, on 3 December 2014, we (as "Plaintiff" in counterclaim case) had appealed decision of Trial Court in damage amount. We appealed damage of 75.5 million Baht. On 5 January 2015, Defendant (in counterclaim case) had submitted to suspend the execution of a sentence and appealed for order of the Trial Court that dismissed case. Now this case is in consideration of the Appeal Court.

### 6. General Information and Others

Company Name: Thai Agro Energy Public Company Limited

Company Registration: 0107550000157

Type of Business: Ethanol Production and Distribution for Fuel

Location of Head Office: 888/114 Mahathun Plaza, 11th floor, Ploenjit road, Lumphini

sub-district, Pathumwan district, Bangkok 10330

Location of Factory: 9 Village No. 10, Danchang-Samchuk road, Nong Makha Mong

sub-district, Danchang district, Suphanburi province

Website: www.thaiagroenergy.com

Telephone: 0-2627-3890-4, 0-2225-4380-4

Fax: 0-2627-3889

Registrar: Thailand Securities Depository Co.,Ltd., 62 Stock Exchange of

Thailand Building, Rajadapisek Road, Klongtoey, Bangkok 10110

Tel.:0-2229-2000, Fax: 0-2654-5649

Auditor: EY Office Limited, represented by Mrs. Saifon Inkaew, certified

public accountant no. 4434, and/or Mr. Wichart Lokatekrawee, certified public accountant no. 4451, and/or Ms. Satida Rattananuruk, certified public accountant no. 4753, with address at 193/136-137 New Rajadapisek Rd., Bangkok 10110,

Tel.:0-264-0777, Fax: 0-2264-0789-90

Full name : Mr. Visith Noiphan

**Position**: Independent Director and Chairman of Board of Directors

**Nationality** : Thai

Age : 81 years

### Education:

- Master of Engineering (Sanitary Engineering), Chulalongkorn University

- Bachelor of Engineering (Civil Engineering), Chulalongkorn University

- Diploma of National Defence, Thailand National Defence College (NDC), 24th Generation

- Certificate of Industrial Hygiene, Cincinnati University, U.S.A.

- Certificate of International Program in Environmental Aspect of Industrial Development, North Carolina University, U.S.A.

- Certificate of Industrial Safety, US Department of Labour

- Curriculum of Director Accreditation Program of Institute of Director (IOD)

Director Accreditation Program (DAP) 5/2003

• Role of Chairman Program (RCP) 20/2008

**Duration of Director**: Since 2006 to present, total 8 years

Meeting Attendance: 11 of 14 times

Number of Company's Share on 11 March 2015: 911,320 shares or 0.09 percent of the paid-up capital.

Direct and Indirect Interest in Company and Subsidiaries: None

Year	Position	Company
2005 – Present	Independent Director&President	TPI Polene PCL
2001 – Present	Independent Director&President	Sahaviriya Plate Mill PCL
2004 - Present	Independent Director	Bangsaphan Barmill PCL



Full name : Mr. Kraisi Sirirungsi

Position : Vice Chairman of Board of Director and Authorized Director

Nationality : Thai

Age : 64 years

Education

- Bachelor of Engineering (Mining Engineering)

- Diploma of National Defence, Thailand National Defence College (NDC), No. 4212

- Curriculum of Director Accreditation Program of Institute of Director (IOD)

Director Accreditation Program (DAP) 39/2005

**Duration of Director**: Since 2003 to present, total 11 years

Meeting Attendance: 12 of 12 times

Number of Company's Share on 11 March 2015: 41,200,000 shares or 4.12 percent of the paid-up capital.

Direct and Indirect Interest in Company and Subsidiaries: None

Year	Position	Company
1985 – Present	Director, Executive Chairman	Lanna Resources PCL
2008- Present	Director	PT. Singlurus Pratama
2006 – Present	Director	PT. Lanna Mining Services
2003 – Present	Director	PT. Lanna Harita Indonesia
1996 - Present	Director	United Bulk Shipping Pte.Ltd





Full name : Mr. Suroj Subhasavasdikul

**Position**: Vice Chairman of Board of Director and Authorized Director

Nationality : Thai

Age : 72 years

Education:

- Ph.D. in Chemical Engineering Institute Du Genie Chimique, France

- Curriculum of Director Accreditation Program of Institute of Director (IOD)

Director Accreditation Program (DAP) 39/2005

**Duration of Director:** Since 2003 to present, total 11 years

Meeting Attendance: 12 of 14 times

Number of Company's Share on 11 March 2015 : None

Direct and Indirect Interest in Company and Subsidiaries: None

Year	Position	Company
1985 – Present	Director and Executive Director	Lanna Resources PCL
2004 – Present	Director	Royal Porcelain PCL
1996 - Present	Director	United Bulk Shipping Pte.Ltd

Full name : Mr. Anun Louharanoo

**Position**: Director and Authorized Director

Nationality : Thai

Age : 61 years

### Education:

- Bachelor of Accounting, Thammasart University

- Bachelor of Law, Thammasart University

- Curriculum of Director Accreditation Program of Institute of Director (IOD)

• Director Accreditation Program (DAP) 1/2003

• Director Certification Program (DCP) 29/2003

• Audit Committee Program (ACP) 2/2004

• DCP Refresh Course (RE.DCP) 2/2006

Improving the Quality of Financial Reporting (QFR) 2/2006

Monitoring the Internal Audit Function (MIA) 1/2007

Monitoring the System of Internal Control and Risk Management (MIR) 1/2007

• Role of compensation Committee Program (RCC) 7/2008

• Corporate Governance Workshop Board Performance Evaluation Year 2007

**Duration of Director**: Since 2003 to present, total 11 years

Meeting Attendance: 14 of 14 times

Number of Company's Share on 11 March 2015: 4,771,895 shares or 0.47 percent of the paid-up capital.

Direct and Indirect Interest in Company and Subsidiaries: None

Year	Position	Company
1985 - Present	Director, Executive Director, and Director of Financial	Lanna Resources PCL
2011 - Present	Independent Director and Chairman of Audit	Thailand Carpet
	Committee	Manufacturing PCL
2008 - Present	Executive Director	PT. Singlurus Pralama
2006 - Present	Director	PT. Lanna Mining Services
2005 - Present	Independent Director and Audit Committee	Diamond Roofing Tiles PCL
2008 - Present	Director	PT. Lanna Harita Mineral



Full name : Mr. Somchit Limwathanagura

**Position**: Director and Authorized Director

Nationality : Thai

Age : 76 years

Education :

- Bachelor of Engineering, Mechanism, Technique University, Germany

- Curriculum of Director Accreditation Program of Institute of Director (IOD)

• Director Accreditation Program (DAP) 107/2014

**Duration of Director:** Since 2006 to present, total 8 years

Meeting Attendance: 14 of 14 times

Number of Company's Shares on 11 March 2015: 28,322,657 shares or 2.83 percent of the paid-up capital.

Direct and Indirect Interest in Company and Subsidiaries: None

Year	Position	Company
2007 – Present	Foreign Advisor	UT International Co., Ltd.
2001 - 2007	Executive Director	UT International Co., Ltd.



Full name : Mr. Srihasak Arirachakaran

: Director and Authorized Director Position

Nationality : Thai

Age : 55 years

### Education:

- Ph.D In Petroleum Engineering University of Tulsa, Oklahoma USA

- MSc. In Petroleum Engineering University of Tulsa, Oklahoma USA

- BSc. In Petroleum Engineering (With Honor) University of Tulsa, Oklahoma USA

- Curriculum of Director Accreditation Program of Institute of Director (IOD)

• Director Accreditation Program (DAP) 107/2014

• Director Certification Program (DCP)

**Duration of Director :** Since 2003 to present, total 11 years

Meeting Attendance: 11 of 14 times

Number of Company's Share on 11 March 2015: None

Direct and Indirect Interest in Company and Subsidiaries: None

Year	Position	Company
2001-Present	Business Development and Marketing	Lanna Resources PCL
	Director	
2008-Present	Executive Director	PT. Singlurus Pratama
2006-Present	Executive Director	PT. Lanna Mining Services
2002-Present	Director	PT. Lanna Harita Indonesia



Full name: Mr. Somchai Lovisuth

**Position**: Authorized Director, Chief Executives Officer and

Chairman of Risk Management Committee,

**Nationality:** Thai

Age : 66 years

Education:

- Master in Production Management & Manufacturing Technology, University of Strathclyde, U.K.

- Curriculum of Director Accreditation Program of Institute of Director (IOD)

• Director Accreditation Program (DAP) 80/2009

• Director Certification Program (DCP) 198/2014

**Duration of Director :** Since 2007 to present, total 7 years

Meeting Attendance: 14 of 14 times

Number of Company's Share on 11 March 2015: 1,835,400 shares or 0.18 percent of the paid-up capital.

Direct and Indirect Interest in Company and Subsidiaries: None

Year	Position	Company
2007 - Present	Director and Chief Executives Officer	Thai Agro Energy PCL
2003 – 2007	General manager and Executive Director	Thai Agro Energy Co.,Ltd.



Full name : Mr. Padetpai Meekun-iam

**Position**: Independent Director and Chairman of Audit Committee

Nationality : Thai

Age : 69 years

### Education:

- Master in Engineering, Mechanism, Georgia Institute of Technology U.S.A
- Curriculum of Monitoring the Quality of Financial Reporting (MFR) 17/2013
- Curriculum of Monitoring the System of Internal Control and Risk Management (MIR) 14/2013
- Curriculum of Monitoring Fraud Risk Management (MFM) 10/2013
- Curriculum of Monitoring the Internal Audit Function (MIA) 15/2013
- Curriculum of Director Accreditation Program of Institute of Director (IOD)
  - Director Certification Program (DCP) 22/2002
  - Audit Committee Program (ACP) 42/2013

**Duration of Director :** Since 2007 to present, total 7 years

Meeting Attendance: 13 of 14 times

Number of Company's Share on 11 March 2015: None

Direct and Indirect Interest in Company and Subsidiaries: None

Year	Position	Company
2008 – Present	Director and Chairman of Audit Committee	QTC Energy PCL
2003 – Present	Director and Chairman of Audit Committee	MBK Resort PCL



Full name : Mr. Virach Aphimeteetamrong

Position Independent Director and Audit Committee

Nationality: Thai

Age 71 years

Education:

Ph.D. in Finance, University of Illinois, U.S.A.

Curriculum of Director Accreditation Program of Institute of Director (IOD)

Director Accreditation Program (DAP) 2/2003

Anti-Corruption for Executive Program (ACEP) 4/2012

**Duration of Director:** Since 2013 to present, total 1 years

Meeting Attendance: 12 of 14 times

Number of Company's Share on 11 March 2015: None

Direct and Indirect Interest in Company and Subsidiaries : None

Year	Position	Company
2007 - Present	President	Intouch Holdings PCL
2004 – Present	Director	Asia Plus Group Holdings Securities PCL
2004 – Present	Director	Bangkok Chain Hospital PCL
2003 – Present	Director	TRIS Rating Co., Ltd.
2003 – Present	Director	TRIS Corporation Co., Ltd.
1995 – Present	Director	Metro System Corporation PCL
1993 – Present	Director	Suphalai PCL
1993 – Present	President	Audit Office DR. Wirat and Associates Co., Ltd.



Full name: Mr. Satit Chanjavanakul

**Position**: Independent Director and Audit Committee

Nationality: Thai

Age : 66 years

Education:

- Master in Business Management, Thammasart University

- Master in Textile Technology, University of Leeds, U.K.

- Curriculum of Director Accreditation Program of Institute of Director (IOD)

• Director Certification Program (DCP) 83/2007

**Duration of Director:** Since 2013 to present, total 1 years

Meeting Attendance: 12 of 14 times

Number of Company's Share on 11 March 2015: None

Direct and Indirect Interest in Company and Subsidiaries: None

Year	Position	Company
2010 - Present	Director	Thai Airline Holding Co., Ltd.
2010 – Present	Director	Witcorp Products Co., Ltd.
2009 - Present	President	SNC Former PCL
2009 - Present	Director	Cworn Seal PCL
2009 - Present	Director	Chumphon Palm Oil Industry PCL
2009 - Present	Director	Lalin Property PCL
2008 - Present	Director	Jamjuree Innovation Co., Ltd.
2005 - Present	Director	Asia Plus Group Holdings Securities PCL
1991 - Present	Director	SPC Home Idea Co., Ltd.



Full name : Mrs. Somrudee Suwannaroop

**Position**: Management Director and Company Secretary

Nationality : Thai

Age : 46 years

### Education:

- Bachelor in Accounting, Dhurakij Bandit University

- Curriculum of Effective Minutes Recording, Thai Chamber of Commerce, 2009

Curriculum of Mergers and Acquisitions Financial, Legal, and Tax Strategies and Planning 2014,
 OMEGA WORLD CLASS

- Curriculum of Director Accreditation Program of Institute of Director (IOD)

• Company Secretary Program (CSP) 54/2013

**Duration of Position:** Since 2014 to present

Number of Company's Share on 11 March 2015: 100,000 shares, or 0.01 percent of the paid-up capital.

Direct and Indirect Interest in Company and Subsidiaries: None

Year	Position	Company
2014 - Present	Management Department Director and	Thai Agro Energy PCL
	Company Secretary	
2013 - 2014	Accounting and Finance Manager and	Thai Agro Energy PCL
	Company Secretary	
2003 - 2013	Accounting and Finance Manager	Thai Agro Energy Co.,Ltd.



Full name : Miss Kanyaphat Chinandej

**Position**: Director of Business Development and Marketing Department

Nationality : Thai

Age : 47 years

### Education:

- Master in Business Administration, University of Technology, Sydney, Australia

- Master in International Marketing, University of Technology, Sydney, Australia

**Duration of Position :** Since 2009 to present

Number of Company's Share on 11 March 2015 : None

Direct and Indirect Interest in Company and Subsidiaries : None

Year	Position	Company
2009 – Present	Director of Business Development	Thai Agro Energy PCL
	and Marketing Department	
2004 - 2009	Business Development Manager	Thai Agro Energy Co.,Ltd.





Full name : Mr. Mongkhon Sunnanon

**Position**: Plant Director

**Nationality**: Thai

Age : 64 years

Education:

- Bachelor in Engineering (Mechanical), Chulalongkorn University

**Duration of Position :** Since 2011 to Present

Number of Company's Share on 11 March 2015: 200,000 ordinary shares, equals to 0.02% of paid capital

Direct and Indirect Interest in Company and Subsidiaries : None

Year	Position	Company
2011-Present	Factory Director	Thai Argo Energy PCL
2008-2011	Mechanical and Electrical Manager	Thai Engineering Consultant Co., Ltd.



Full name : Mr. Anan Rayaruji

**Position**: Assistance Plant Director

Nationality : Thai

Age : 41 years

Education:

- Master in Business Administration, Ramkhamhaeng University

**Duration of Position:** Since 2014 to Present

Number of Company's Share on 11 March 2015 : None

Direct and Indirect Interest in Company and Subsidiaries: None

Year	Position	Company
2011-Present	Assistance Plant Director	Thai Agro Energy PCL
2008-2014	Manufacturing Manager	Ratchaburi Sugar Co., ltd.



THAI AGRO ENERGY PUBLIC COMPANY LIMITED
ANNUAL REPORT 2014

Full name : Anukitti Boonyamongkonrat

Position : Assistance Plant Director

: Thai Nationality

Age : 53 years

### Education:

Bachelor in Agricultural Industry, Kasetsart University

MINI MBA, Thammasart University

Curriculum of Lactic Bio-acid Manufacturing, Purac (U.S.A.) Co., Ltd., USA

**Duration of Position :** Since 2014 to Present

Number of Company's Share on 11 March 2015: None

Direct and Indirect Interest in Company and Subsidiaries: None

Year	Position	Company
2014-Present	Assistance Plant Director	Thai Agro Energy PCL
2011-2014	Manufacturing Manager	Nestlé (Thai), Amata Nakhon
2006-2010	Assistance Manufacturing Manager	Purac (Thailand)
2004-2006	Assistance General Manager	TCK Interplast and Propet (Thailand)
1986-2003	Factory Manager	Thai Vegetable Oil PCL



Full name : Miss Theeranan Khunakasem

**Position**: Accounting and Finance Manager

Nationality : Thai

Age : 36 years

### Education:

- Master in Business Administration (Accounting), Ramkhamhaeng University

- Bachelor in Business Administration (Accounting), Thanyaburi Rajamankala Technology University

**Duration of Position :** Since 1 January 2015 to Present

Number of Company's Share on 11 March 2015 : None

Direct and Indirect Interest in Company and Subsidiaries: None

Year	Position	Company
2015 – Present	Accounting and Finance Manager	Thai Agro Energy PCL
2014 - 2015	Acting Accounting and Finance	Thai Agro Energy PCL
	Manager	
2013 - 2014	Accounting Manager	Thai Agro Energy Co.,Ltd.
2010 - 2013	Chief of Accounting Section	Thai Agro Energy Co.,Ltd.



Full name : Mr. Suphachai Kaewfuang

**Position**: Audit Department Manager

Nationality : Thai

Age : 42 years

Education:

- Bachelor in B.B.A. (Accounting), Thanyaburi Rajamongkala Technology University

**Duration of Position :** Since 2007 to Present

Number of Company's Share on 11 March 2015 : None

Direct and Indirect Interest in Company and Subsidiaries: None

Year	Position	Company
2007 - Present	Audit Department Manager	Thai Agro Energy PCL



Details of The Holding position in Related Companies of the executives and controlling persons of Company (As December 31, 2014)

	L A																			Relat	Related Companies	Jong.	Janie	SS																		
Name	IAE	1	2	3	4	2	9		∞	9 1	10 1	11 13	12 13	3 14	1 15	5 16	17	18	19	20	21	22	23 2	24 2	25 2	26 2	27 2	28 29	9 30	0 31	1 32		33 34		35 36	36 37	7 38	8 39	9 40	0 41	1 42	2 43
Mr. Visith Noiphan	Э																O					/							_	/		J	C									
Mr.Suroj Subhasavasdikul	DΛ	\						_																																		
Mr. Kraisi Sirirungsi	ΛC	111	\	/	\		Û	_															_											_	_							
Mr. Anun Louharanoo	/	/,M	\	/	Σ	×																	_	A,/											/,	4,						
Mr. Somchit Limwathanagura	/																	1																								
Mr. Srihasak Arirachakaran		Μ	\	/	\	Σ																																				
Mr. Somchai Lovisuth	11'1																																									
Mr. Padetpai Meekun-iam	A,/										,	A,/		\						\																",	A,/					
Mr. Virach Aphimeteetamrong	A,/							_	4,			)	U		/	\					Α,/						A,/			_	_	_	U	U								
Mr. Satit Chanjavanakul	A,/							_	Α,				V,A	d					/					_	/,A			Υ'	A								_	Ο,	/ :			/
Miss Kanyaphat Chinandej	W																																									
Mr. Mongkhon Sunnanon	W																																							\		
Mr. Anan Rayaruji	W																																									
Mr. Korn Thangviroon	W																																									
Mrs. Somrudee Suwannaroop	W																																								/	
Remarks	C	II.	= Chairman	irm?	an				VC	U		= Vić	je C	= vice Chairman	man	_					⋖		=	Audi	it Cc	nmc	= Audit Committee	Ф														

Related Companies:

1. Lanna Resources PCL

PT. Lanna Mining Services 2

PT. Citra Harita Mineral

Bangsaphan Barmill PCL 22.

= Management

≥

= Chief Executive Officer

>

= Director

Prempracha Collection Co.,Ltd 23.

Diamond Roofing Tiles PCL

- 4. PT. Lanna Harita Indonesia
- 5. PT. Singlurus Pratama
- 6. Lanna (Singapore) Pte. Ltd
- . United Bulk Shipping Pte. Ltd
- 8. Asia Plus Group Holdings Securities PCL
- 9. Green Nano Co.,Ltd.
- 10. Grobal Green Nano Co.,Ltd.
- 11. QTC Energy PCL
- 12. Intouch Holdings PCL
- 13. Chumphon Palm Oil Industry PCL
- 14. Tati Automobile Co.,Ltd.
- 15. TRIS Corporation Co., Ltd.
- 16. TRIS Rating Co., Ltd.
- 7. TPI Polene PCL
- 18. UT International Co., Ltd.
- 19. Thai Airline Holding Co., Ltd.
- 20. Nizeclay Jewel Repart Co.,Ltd.
- 21. Bangkok Chain Hospital PCL

- . Cworn Seal PCL
- 26. Mit Progress Co.,Ltd.
- Metro System Corporation PCL
- . Metro prolitante Engineering Consultant Co.,Ltd
- 29. Lalin Property PCL
- 30. SMA Internationnal Co.,Ltd.
- . Suphalai PCL
- 32. Suphalai property management Co.,Ltd.
- 33. Sahaviriya Plate Mill PCL
- 34. Audit Office DR. Wirat and Associates Co., Ltd.
- 35. Laemtong Lignite Co.,Ltd.
- 36. Thailand Carpet Manufacturing PCL
- 37. MBK Resort PCL
- 38. SPC Home Idea Co., Ltd.
- SNC Former PCL
- 40. Jamjuree Innovation Co., Ltd.
- 41. MSN consultant limited partnership
- 42. Nicha well Co.,Ltd.
- 3. Witcorp Products Co., Ltd.

# Information of officer and head of internal audit and corporate governance

	0.7	Shareholding in			EXI	Experiences during the past 5 years	ast 5 years
Name	rye (year)	the Company's (%)	with the executives.	Education / Training	period	Position	company
1. Suphachai Kaewfuang	42	None	None	<u>Education</u>	Jun 2007-Present	Audit Department	Thai Agro Energy PCL
- Audit Department				2536-2537: University Institute of Technology		Manager	
Manager				(Accounting)			
- Secretary of Audit				2534-2535: Rajamangala Institute of Technology			
Committee				Phanakorn , Advanced Certificate			
- Secretary of Risk				(Accounting)			
Management				Training			
				- Anti-Corruption The Practical Guide (ACPG 18)			
	_						
				- Enterprose Risk Management :			
				OMEGAWORLDCLASS Research Institute (2014)			
				Association Information Systems (2013)			
	_			- Internal Audit Program: Prepared Course for			
				Certified Internal Auditor: Pre - CIA)2013			
	_			- Audit Fraud Association of Internal Auditors of			
				Thailand (2010)			
				- Risk management based on COSO ERM:			
				Association of Internal Auditors of Thailand			
	_			(2009)			
				- Tools and Techniques for the Audit Manager :			
	_			Association of Internal Auditors of Thailand			
				(2008)			
	_			- Management and Internal Audit - Strategic			
				Management Audit : FAP. Nationals (2006)			
				- Corporate Secretary Development Program			
				(CSDP) Model 14: Faculty of Commerce and			
				Accountancy University (2006)			
	_			- The risk assessment to plan the audit: Association			
				of Internal Auditors of Thailand (2004).			
				Ē			
				The Board of Directors of listed companies			
				- None -			
				Special Events(Current)			
				- None -			



## Part 2

# Management and Controlling

### 7. Securities and Shareholders

# 7.1 Number of Registered and Paid Capital

We have full paid registered capital 1,000,000,000 Baht which separated into 1,000,000,000 ordinary shares with 1 Baht par value.

### 7.2 Shareholders

Name list of 10 major shareholders at 11 March 2015 is following  $^{1)}$ 

	Chanalandan'a Nama	After Right	Offering
	Shareholder's Name	No. of Share	Percentage
1.	Lanna Resources Public Company Limited <sup>2)</sup>	510,000,000	51.00
2.	Siam City Cement Public Company Limited	47,234,796	4.72
3.	Sirirangsi Group		
	3.1 Mr. Kraisi Sirirangsi	41,200,000	4.12
	3.2 Mrs. Wassana Sirirangsi	4,100,000	0.41
	Total shares held by Sirirangsi Group	45,300,000	4.53
4.	Limwathanagura Group		
	4.1 Mr. Somchit Limwathanagura	28,322,657	2.83
	4.2 Mr. Noppadon Limwathanagura	3,018,867	0.30
	Total shares held by Limwathanagura Group	31,341,524	3.13
5.	Chaturaphruek Group		
	5.1 Mrs. Hang Chaturaphruek	16,113,213	1.61
	5.2 Mr. Bunsin Chaturaphruek	18,132,080	1.81
	5.3 Mr. Manunsom Chaturaphruek	1,486,733	0.14
	Total shares held by Chaturaphruek Group	35,732,026	3.56
6.	Mr. Wisit Tantisunthon	17,373,000	1.74
7.	Susangkarakarn Group		
	7.1 Miss Kun Susangkarakarn	5,000,000	0.50
	7.2 Mr. Kan Susangkarakarn	3,565,400	0.36
	Total shares held by Susangkarakarn Group	8,565,400	0.86
8.	Miss Phanni Srisawat	8,100,000	0.81
9.	Louharanoo Group		
	9.1 Mr. Anan Louharanoo	4,528,300	0.45
	9.2 Mr. Arkhom Louharanoo	2,000,000	0.20
	Total shares held by Louharanoo Group	6,528,300	0.65
10	. Mr. Somkiat Simsong	5,720,492	0.57
	Total	715,895,538	71.57

Note 1) Source: Shareholders' name list on book-closing date for suspension, 11 March 2015, by Thailand Securities Depository Co., Ltd. (TSD)

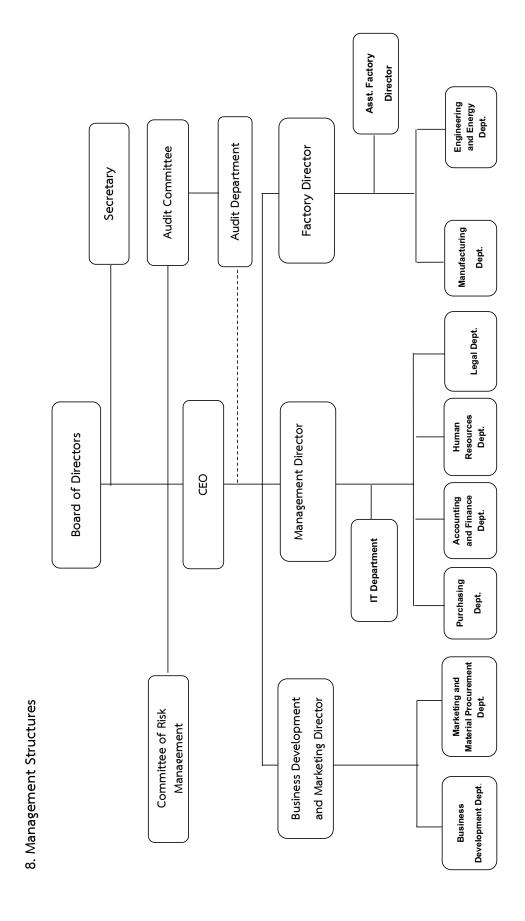


2)	Name list of	f firct 10	shareholders of	Lanna Recources	PCI o	n 4 November 2014
<b>∠</b> )	Mairie list Oi	11120 10	shareholders of	Lailla Nesoulces	L CT C	II 4 NOVEILIDEI ZUI4

Shareholders' name list	No. of Share	Percentage
1. Siam Cement PCL <sup>9)</sup>	236,173,980	44.986
2. Mr. Thaweechat Jurangkun	43,142,000	8.218
3. Miss Kraikarn Sirirangsi	33,000,000	6.286
4. Master Kongphob Simsong	28,562,460	5.440
5. Mr. Thanat Tantisunthon	17,131,065	3.263
6. Mr. Kraisi Sirirangsi	9,515,063	1.812
7. Mrs. Manlika Inthusut	7,650,000	1.457
8. Mr. Wisit Tantisunthon	6,430,500	1.225
9. Mrs. Praphai Loetphanitkun	5,780,000	1.101
10. Mr. Wiloet Wongaphisamphoe	5,472,300	1.042
Total	392,857,368	74.83

# 7.3 Dividend Policy

We have dividend policy not less than 60% of net profit, after accumulated loss (if available) and reserve fund according to the laws, of our yearly financial statement. However, we may pay dividend less than foresaid rate, depends on outcome, financial status, liquidity and necessity of working capital for management, returning for loan and accrued liabilities, and investment or business expanding in the future.



Company's management structure comprises with Board of Director and 2 of subcommittees as Audit Committee and Committee of Risk Management, including Executives Board. Company's directors and executives have fully qualified under Section 68 of the Public Company Limited Acts B.E.2535 and related Announcement of Capital Market Supervisory Board. Details of company's management structure are below.

#### 8.1 Board of Directors

Comprising with 10 directors. In year 2013 and 2014, we had provided the 12 and 14 meetings of company's board of directors, respectively. Details of attendance of each director are following;

Name of Director		No. of Attendance / No. of the	No. of Attendance / No. of the	
		Meeting in 2013	Meeting in 2014	
1. N	Mr. Visith Noiphan	9/12	11/14	
2. N	Mr. Suroj Subhasavasdikul	12/12	12/14	
3. N	Mr. Kraisi Sirirangsi	12/12	11/14	
4. N	Mr. Anan Louharanoo	11/12	14/14	
5. N	Mr. Somchit Limwathanagura	11/12	14/14	
6. N	Mr. Srihasak Arirachakaran	10/12	11/14	
7. N	Mr. Somchai Lovisuth	12/12	14/14	
8. N	Mr. Padetpai Meekun-iam	11/12	13/14	
9. N	Mr. Virach Aphimeteetamrong	5/5	12/14	
10. N	Mr. Satit Chanjavanakul	4/5	12/14	

Note: 1. The Extraordinary meeting of shareholders No. 1/2556 held on 31 July 2013 had approved to assign more 2 directors and audit committees as Mr. Virach Aphimeteetamrong and Mr. Satit Chanjavanakul

2. Director No. 2 - 4 and 6 are representatives of Lanna Resources PCL

Mrs. Somrudee Suwannaroop is The Company secretary.

#### **Authorized Directors**

Mr. Kraisi Sirirangsi, Mr. Suroj Subhasavasdikul, Mr. Somchit Limwathanagura, Mr. Anan Louharanoo, Mr. Srihasak Arirachakaran, and Mr. Somchai Lovisuth, two of six foresaid directors jointly signed together with company seal affixed.

#### 8.2 Executive Officers

There are 7 executives as following;

	Name-Surname	Position
1.	Mr. Somchai Lovisuth	Chief Executive Officer
2.	Mr. Mongkhon Sunnanon	Factory Director
3.	Miss Kanyapatch Jinandet	Business Development and Marketing Director
4.	Mrs. Somruedi Suwannaroop	Management Director
5.	Mr. Korn Tanwirun*	Public Relation Senior Manager
6.	Mr. Anan Rayaruji	Assistant Factory Director
7.	Mr. Anukiti Bunyamongkonrat	Assistant Factory Director

Remark \*Mr. Korn Tangwirun has resigned from company's staff on 1 February 2015

## Terms of Reference of Chief Executive Officer

- 1. Control and govern company's management to efficiently according to resolution of the meeting of shareholders/Board of Directors and to company's objectives and Articles of Association for company's interests both short- and long-term.
- 2. Prepare working plan, budget, staff list, employment budget, and annual capital budget and submit to the Board to considering every year.
- 3. Managing under policy of the Board and expenditure and capital budget that approved by the Board.
- 4. Reporting performance to the Board in every month and summarizing quarterly report to the Board.
- 5. Complying with related laws in company's business along with any agreements against government and others.
- 6. Financial managing according to financial plan that approved by the Board and obligation of all creditors.
  - 7. Performing and/or operating in any matters assigned by the Board.

#### Financial Control

- 1. Authorize to approve normal daily expenditure according to its budget and employment budget which approved by Board of Directors, including any expenses according to any agreement that company obliged to authorities and others, and/or any expenses as specified by the laws.
- 2. Authorize to purchase/hire for permanent assets and/or abnormal expenses in company's operation under any budgets approved by Board of Director in amount not exceed 200,000 Baht per time or transaction.

- 0
- 3. Authorize to loan for company's business within amount and under principle and condition accepted by Board of Directors, and in case of necessary to use company's properties to be security, prior approval by Board of Directors is necessary every time, unless following transaction that assumed to be normal transaction and approvable;
- 3.1 Opening letter of credits (L/C) including trust receipt and shipping guarantee for purchasing/hiring from abroad;
- 3.2 Preparing guarantee of bank and/or financial institution for being security of performance according to any agreement that company obliged to authorities and others;
- 3.3 Entering risk protective in foreign exchange agreement such as forward exchange contracts, etc. This is only case that company has agreement or obligation to pay in foreign currency;
- 4. Approving staff to withdraw advance payment for company's operation as following;
- 4.1 Expenses under agreement and/or specified by the laws and/or approved by Board of Directors to withdraw for actual paid amount such as land price, electrical expense and other facilities, and tax, etc.
- 4.2 Other transactions other than item 4.1 may approved 1,000,000 Baht per time and/or transaction.
- 5. Authorize to approve to cut-off and distribute assets that damaged/out date/obsolete, but cost of purchasing price of such assets have not exceed 100,000 Baht and book value not exceed 10,000, and collective purchase price not exceed 1,000,000 Baht;
- 6. Authorize to reserve and/or cut-off bad debts not exceed 50,000 Baht per time and/or transaction, but total not exceed 1,000,000 Baht in a financial year, and then report to Board of Directors in every month.

### Manufacturing Control

- 1. Defining target and plan of annual manufacturing to corresponding with market demand and be under agreement obliged company to all customers, and submit to Board of Directors for approval every year;
- 2. Authorize to approve in purchasing/procuring raw material for company's operation within approved budget and under rule and condition accepted by Board of Directors;
- 3. Plan and manufacture products under plan and target that approved by Board of Director with lowest cost. In case there is some changing differ from specified plan and target, approval by Board of Directors is needed before operate;
- 4. Plan and/or propose policy or ways to operate other business that may be advantage commercially for more potentiality in company's manufacturing and distribution and for expanding and/or growth permanently and sustainably.

#### Sale Control

- 1. Setting target, plan, and strategy of products distributing in any year to corresponding with market demand and according to agreement that obliged company to all customers and submit to Board of Directors for approval;
- 2. Planning and operating to distributing products according to plan and target that approved by Board of Directors to maintain or increase market share, including increase most revenue or profit. In case there is some changing differ from specified plan and target, approval by Board of Directors is needed before operate;
- 3. Distributing products and services according to price and condition that specified by Board of Directors and/or according to agreement with all customers;
- 4. Purchasing/employing and/or importing any products for distribution to maintain or increase market share, including increase most revenue or profit. In case there is some changing differ from specified plan and target, approval by Board of Directors is needed before operate;
- 5. Authorize to sell products and services both domestic and international by make each agreement not longer than 1 year.

#### Staffs Control

- 1. Authorize to set number of staffs that suitable to company's operation, including salary, wage, remuneration, and reward of all staffs according to employment list and budgets which approved by Board of Director, unless department director and up that needed prior approval by Board of Director;
- 2. Authorize to employ, assign, transfer, revoke, and terminate any and all employment, unless department director and up which needed prior approval by Board of Director;
- 3. Authorize to provide rule in performance regulation and staffs' welfare according to principle, condition, and budget that approved by Board of Directors;

## Litigation and Contractual Control

- 1. Authorize to sign not exceed 1 year contract that obliged company only normal operation under any budgets which approved by Board of Directors;
- 2. Authorize to litigate and defense for company's advantage and shall report to Board of Directors in every meeting and litigation may occurred;

# **Project Control**

- 1. Consider and study possibility of project that deems advantage to company's business in the future and/or better return in long time;
- 2. Consider to hire advisory for any projects under budget that approved by Board of Directors;
- 3. After primarily studied project and deems that is possible, then propose project's details for approval by Board of Directors before run such project;

- 4. For project that be approved, authorize to;
- 4.1 Scheduling, budgeting, and targeting such project to achieve its objective or gain internal rate of return according to project scope that proposed to Board of Director;
- 4.2 Contact, negotiate, and sign memorandum of understanding related to joint venture not exceed one year;
- 4.3 Shareholder agreement and joint venture company establishing are needed prior approval of Board of Directors;
- 5. Report progressive of any approved projects to Board of Directors in all meeting.

#### Others

- 1. Any and all matters needed approval and/or accepted by Board of Directors, CEO shall scrutinize or accepted before propose to Board of Directors;
- 2. Any and all matters that exceeded foresaid authority and responsibility of CEO shall be approved by Board of Directors before;
- 3. CEO may empower any company's staff under his/her authority and responsibility, as reasonable and suitable by occasionally.

Assignment or empowerment of Board of Director, Sub Committee, Director, or Executive shall not empower or sub-empower that proxy or sub-proxy be able to approve interested transaction or opposed to interests of company, subsidiary, or joint venter, unless approval for general transaction of business that authorization has been scoped expressly.

## 8.3 Secretary

Board of Directors had resolution in the meeting of Board of Directors No. 7/2556 on 25 July 2013 to assign Mrs. Somrudee Suwannaroop to be Company Secretary (her backgrounds and description appeared in attachment No. 1), with following responsibilities;

- 1. Maintain and advise to directors and executives in performance under laws, rule, regulation, and company's articles of association, together with following to performing correctly and regularly;
- 2. Arranging Board of Directors meeting and Shareholders meeting, including coordinating to act upon resolution of those meetings;
- 3. Maintaining disclosure of information and report to be under regulation and rule of SET and SEC including related laws;
  - 4. Prepare and maintain following documents;
    - 4.1 Director Registration;
    - 4.2 Invitation letter for meeting of Board of Directors and minutes of meeting of Board of Directors;

- 4.3 Invitation letter for meeting of Shareholders and minutes of meeting of Shareholders:
- 4.4 Company's Annual Report;
- 4.5 Report of Interest of Executive Directors
- 5. Others operation as defined by Capital Market Supervisory Board.

# 8.4 Compensation of Directors and Executives

# 8.4.1 Financial Compensation

Compensation of Directors

We pay compensation of directors by monthly and pension by annually. Compensation of Directors for year 2014 are following;

		Unit : Baht		
Full Name	Position	Compensation	Pension	Total
1. Mr. Visith Noiphan	Chairman of the Board of Director	540,000	171,426	711,426
2. Mr. Suroj Subhasavasdikul	Vice President	360,000	114,286	474,286
3. Mr. Kraisi Sirirangsi	Vice President	360,000	114,286	474,286
4. Mr. Anan Louharanoo	Director	360,000	114,286	474,286
5. Mr. Somchit Limwathanagura	Director	360,000	114,286	474,286
6. Mr. Suhasak Arriratchakaran	Professional Director	360,000		
		120,000	114,286	594,286
7. Mr. Somchai Lovisuth	Professional Director	360,000	114,286	474,286
8. Mr. Padetpai Meekhun-iam	Independent Director,	360,000		
	Chairman of Audit Committee	180,000	114,286	654,286
9. Mr. Virach Aphimeteetamrong	Independent Director,	360,000		
	Member of Audit Committee	120,000	114,286	594,286
10. Mr. Satit Chanjavanakul	Independent Director,	360,000		
	Member of Audit Committee	120,000	114,286	594,286
Total		4,320,000	1,200,000	5,520,000

Note: Mr. Srihasak Arriratchakaran has been assigned by the meeting of Board of Directors No. 19/2554 on 22 December 2011 to be Professional Director to advise and be representative of board to follow any performances assigned to management department, for highest efficiency and effective, with monthly compensation 10,000 Baht, commencement on 1 January 2012.

## Compensation of Executives

We pay compensation of executives by monthly salary and pension by annually which varied by company's outcome, with following details;

Year	No. of Executives (Persons)	Compensation Amount (Million Baht)
2013	6	15.00
2014	7	17.12

# 8.4.2 Others Compensation

-None-

#### 8.5 Personnel

## 8.5.1 Number of Personnel

On 31 December 2014, we had 197 employees (not included 7 of executives) that separated into 153 permanent employees and 44 casual employees, as following details;

Department	Permanent	Casual	Total
	Employee	Employee	(Person(s))
	(Person(s))	(Person(s))	
Department of Accounting and Finance	7	-	7
Department of Human Resource	4	-	4
Department of Management and Purchasing	9	8	17
Legal Department	1	-	1
Information Technology Department	2	1	3
Audit Department	2	-	2
Department of Business Development and Marketing	1	-	1
Factory Management Department	2	-	2
Manufacturing Department	41	4	45
Department of Engineering and Energy	67	14	81
Spent Wash Management Department	4	13	17
Department of Warehouse and Raw Material	11	4	15
Controlling			
Department of Safety and Occupation Health	2	-	2
Total	153	44	197

# 8.5.2 Labour Disputation

-None-

# 8.5.3 Compensation of Employees

# Financial Compensation

In 2013 and 2014, we paid compensation to employees (not included executives) totally 36.98 million Baht and 47.01 million Baht, respectively, by salary, bonus, overtime wage, contribution on provident fund, and housing rent.

### Others Compensation

-None-

### 8.5.4 Policy in Personnel Development

We have policy in personnel development regularly by aim to enhance knowledge, skills, and expertise of all employees, including efficient performances. So that, we will encourage our personnel to developable in their skills by on the job training. New employee will be trained by line supervisor specially, including internal training by company's advisory to instruct their experiences and knowledge regularly. In addition, we will also consider to send our employees and executives to participate in any training and seminar related to individual fields of each department.

#### 9. Corporate Governance

#### 9.1 Corporate Governance Policy

We emphasized on good corporate governance, because deems that it is important mechanism to efficient, transparency, and investigable management system, which help to making confidence and trustfulness to shareholders, investors, stakeholders, and related persons. Good corporate governance is a instrument for value adding, competitiveness making, and encouraging company sustainable growth in long-term. Therefore, in the meeting of Board of Directors No. 9/2556 on 20 September 2013, we had set a policy in good corporate governance, according to specified by SET, which covered to 5 sections as following description;

### Section 1: The Rights of Shareholders

We become aware of and emphasizes on any and all fundamental rights of shareholders – such as rights to sell or transfer shares, the rights to receive company's profit share, rights to obtain adequate information, right to attend and vote at a shareholders meeting to appoint or remove director(s), auditor, and other matter that may affect to company such as dividend allocation, set or amend Articles of Association, Memorandum of Association, and capital increasing or decreasing, etc.

Other than foresaid fundamental rights, we also had performed in any matters which be encourage and facilitate to shareholders' rights exercising.

Provide shareholders meeting by hold at downtown for conveniences of shareholders and on suitable and sufficient schedule;



- Deliver prior invitation letter of the meeting to shareholders at least 7 days and mention by date, time, place, and agendas, along with any related information of consideration completely;
- In case shareholder could not attended the meeting, we give a chance to empower to independent director or any persons to be proxy with the power of attorney in form that we have delivered with invitation letter;
- Give opportunities shareholders to inquire, make opinion, and recommend freely and independently which we will recorded such inquiries, opinions, or recommendations correctly and completely into the meeting minutes;
- Board of Directors, Sub-committee, and Executives need to be attended at all shareholders meetings, unless have important tasks that could not be attended, to explain or answer any inquiries of shareholders;
- Upon the meeting finished, we will prepare the meeting minutes to illustrate all information correctly and completely that checkable by shareholders.

After the company was transformed into a public company and was registered as a listed company, the company must state the opinion of the Board of Directors in the invitation letter of shareholders meeting and deliver to shareholders in advance within any period required by the SEC or SET, so that shareholder may study those information before meeting time. Typically, shareholders will receive information through electronic media of SET, our website, and propagate in newspaper as required by the Public Company Limited Acts.

### Section 2: The Equitable Treatment of Shareholders

We have policy to treat and protect all rights of shareholders evenly and fairly components. After this share offering and we had become to listed company, we had more choice for shareholders who may not attend the meeting, they may empower independent director to be proxy and vote as such shareholders required, including shareholders may propose an agenda into the meeting of shareholders and nominate anyone to be director within a reasonable time.

The meeting will be arranged in accordance with company's Articles of Association and its agendas. Details of any agendas will be proposed completely together with supported information, including no more agenda will be added without prior notice to shareholders needlessly, especially, important agenda that should be take a time to study before.

The Board of Directors has a measurement in inside trading preventive. All company's directors, executives, and employees have been prohibited to use company's inside information which not disclosed to public and significant to company's share price, for their own benefits, including securities trading. If found any company's directors, executives, and employees had defaulted such performance guideline, we will litigate and penalty in accordance with the laws. Moreover, according to Section 59 and penalties of the Securities and Exchange Acts B.E.2535, we had instructed our Directors and Executives in tasks on reporting of company's securities occupied by themselves and spouse and underage children, and reporting of occupying changing, against SEC and the meeting of Board of Directors.

#### Section 3: The Role of Stakeholders

We emphasizes on the rights of stakeholders and treating fairly to all related person as following details;

- Employees: We respects on importance of all employees who are a driven part of company for our business developing. We therefore consistently encourage and support their developments in potential, competency, and skills, including fair compensation that suitable to their responsibilities, knowledge, skills, and performance. In addition, we maintain working environment and atmosphere by respect on their life quality and working safety. By this, we have treated to any and all employees evenly and fairly.
- Suppliers and Creditors: We treated to all suppliers and creditors evenly and fairly, no exploitation, and strictly complied with any and all agreements and conditions of suppliers and creditors, for good friendship and understanding by correct and transparent methods.
- Customers: We pay attention on and responsible to customers by emphasizing in manufacturing of quality and standard products regularly, response to customers' demands or search for optimum advantage of customers, protecting customers' secret, and complying with any and all obligations of customers. We also focus on fair condition of customers.
- Competitors: We behaved on the laws, promoted to competitive fairly, and not search for competitors' secret by illegal or unsuitable method;
- Community and Society: We respected in environmental effect. Thus, we focused on culturing in conscious mind and responsible to community and



society regularly and seriously, including encouraging in any public activities and no illegal acting.

### Section 4: Disclosure and Transparency

Board of Directors emphasizes on information disclosure correctly, completely, and transparently, whether financial statement or general information, in accordance with regulation of SEC and SET, along with important information that may effect to company's securities price which influenced to decision making of investors and interested person, in order to all related persons acknowledged in such information evenly. After this offering and had become to listed company, we will propagate our information to shareholders and public through media of SET and our website.

Board of Directors has become aware of responsibility on corrected, completed, truly, and reasonable financial statements. Our financial statements had been prepared according to generally accepted accounting standard with suitable accounting policy, using careful judgment and the best estimation. Important information is adequately disclosed in the notes to financial statements. In addition, Board of Directors provides appropriate and efficient internal controls to ensure that accounting records are accurate, reliable, and adequate to retain its assets as well as to prevent fraud or materiality irregular operations, including appointed an audit committee comprising with directors who not be executives to be responsible for reviewing financial reports, inter-transaction, and internal control system. Audit committee will report directly to Board of Directors.

For investor relations, we had no established special unit, because there were a few related activities, but had assigned Mrs. Somrudee Suwannaroop to responsible in contacting and information to shareholders, analyzers, and related authorities. Such information shall be accuracy, completely, truly, and thoroughly.

#### Section 5: Responsibilities of Board of Directors

### 1. Structure of Board of Directors

Board of Directors comprises with experts who intellectual, skillful, and experienced in executive from any organizations. Therefore, they could take their experiences and skillful to improve and make policy to lead company's business efficiently and resulted in highest benefits to company and shareholders. Board of Directors had major role to make

policies and organization trend, along with govern, investigate, observe, and evaluate performance of management and company's outcome.

Board of Directors structure comprises with independent directors more than one third of all members of board. Now, we have total 10 directors, separated to 4 directors by representatives of major shareholders, 1 director of executive director, and 5 directors of independent director (included company's Chairman) which included 3 of audit committees. Foresaid directors structure will lead to balancing in voting upon considering any and all matters. Moreover, Board of Directors had appointed any sub-committee to assist in company's business governing as following;

1.1 Audit Committee; there are 3 members of audit committee to performing in specific matters and propose to Board of Director to consider and acknowledge. The audit committee has right and duty as stated by Board of Directors. By this, at least 1 member of audit committee must have knowledge and experience in accounting that adequate to check reliable of company's financial statements;

1.2 Risk Management Committee; we have 5 members of risk management committee to considering in problem or risks factor that may occurred by and to company's business operation, and search for solution to reduce or minimize such risks, along with report to Board of Directors occasionally.

Besides, we have policy to separate Chairman and Chief Executive Officer to be not same person, to prevent authoritarian in anyone for any matters. Board of Directors will specify task and duty of committee along with select members of such committee.

So that, Board of Directors has appointed company's secretary for duties and responsibilities according to the Securities and Exchange Acts.

### 2. Meeting of Board of Directors

We have policy that Board of Directors need to hold meeting every 3 months and may have extra meeting additionally as may be required. In any meeting, agendas will be set explicitly. The invitation letter will be sent 7 days in advance, in order to Board of Directors have sufficient time to study before attend the meeting. In addition, the meeting will be recorded in written and kept all meeting minutes that certified by Board of Directors for investigating, if required.

### 3. Compensation of Directors and Executives

We defined proper compensation of directors and executives and sufficient to maintain quality- directors and executives with no extravagance and comparable to other entities in same industry or business. Factors used to consider comprise with experiences, tasks, and scope of roles and responsibilities. Moreover, compensation of directors need to be approved by the meeting of shareholders, but executives will be under principle and policy that set by Board of Directors, in which tasks, responsibilities, and performance of individual will be considered together with company's operation results.

## 4. Development of Directors and Executives

Board of Directors has policy to encourage and facilitate to provide training and educating to anyone who related to company's corporate governance, including director, audit committee, executive, and company's secretary, for their continuous performance developing, such as curriculum of Thai Institute of Directors Association (IOD).

#### 9.3 Sub-committee

## 9.3.1 Structure of Company's Directors

Director's Name	Position
1. Mr. Visith Noiphan	Chairman
2. Mr. Suroj Subhasavasdikul	Director and Authorized Director
3. Mr. Kraisi Sirirangsi	Director and Authorized Director
4. Mr. Anan Louharanoo	Director and Authorized Director
5. Mr. Somchit Limwathanagura	Director and Authorized Director
6. Mr. Suhasak Arriratchakaran	Director
7. Mr. Somchai Lovisuth	Director, Authorized Director, and CEO
8. Mr. Padetpai Meekhun-iam	Director and Member of Audit Committee
9. Mr. Virach Aphimeteetamrong*	Director and Member of Audit Committee
10. Mr. Satit Chanjavanakul*	Director and Member of Audit Committee

Note\*: The extraordinary meeting of shareholders No. 1/2556 on 31 July 2013 had approved to appoint more 2 directors and members of audit committee as Mr. Virach Aphimeteetamrong and Mr. Satit Chanjavanakul

### Term of Reference of Company's Board of Directors

Board of Directors has authorized and responsible in company's management in accordance with the laws, company's objectives and Articles of Association, and resolutions of legal shareholders' meeting, with honestly, carefully, and protectively in

company's interests. Summarized authorities and responsibilities of Board of Directors are below.

- 1. Regulating policy, direction, target, business plan, and budget of company, along with governing the management department to operate efficiently and effectively to increase our economic value and highest secure for shareholders, with following important matters;
  - (a) Stipulate company's organization structure for highest efficiency and effectiveness;
  - (b) Approve working plan and annual budget within 30 days before ended of each year in order to the management department used;
  - (c) Approve investment project along with expanding project and/or company downsizing that be most benefits to company's operation, whether short- or long-term, but not included any transactions that need to be accepted by shareholders in accordance with regulation of SEC and SET;
  - (d) Approve company's financial plan along with loan and credit procuring plan that adequate and suitable to company's operation;
  - (e) Provide company's balance sheet and income statement at ended of fiscal year for audited and certified by auditor, who be appointed by shareholders, in its accuracy before propose to shareholders meeting for approval year by year;
  - (f) Scrutinize some matters that will propose to shareholders meeting for approval such as dividend, capital increasing, capital decreasing, bond issuing, divestiture or assignment, corporate acquisition, corporate merging, etc.;
  - (g) Regulating policy, direction, target, vision, mission, values, and others important matters and may affect to company's financial status and results, whether present or future.
- 2. Considering regulate and separate functions and responsibility of Board of Directors, Sub-committee, and management department explicitly, including always

communicate in such functions and responsibilities to directors, sub-committee, management

3. Providing internal control, internal audit, and risks management system suitably, concisely, and effectively, including regularly observe any operation;

department, and employees;

- 4. Providing general meeting of shareholders within 4 months since ended of company's fiscal year and providing extraordinary meeting of shareholders by occasionally if it necessary;
- 5. Aware of importance in good corporate governance with principle of fairness and integrity, accountability, equitable treatment encouraging, reliability of stakeholders, engross to making values to company and interested person in long-term for company's growth securely and permanently.

In addition, Board of Directors also have authorize in company's governance to comply with the laws in securities and exchange together with any and all announcement and/or regulation of SEC and/or SET – such as transaction related to acquisition or distribution of significant assets, etc. – including laws related to company's businesses;

6. Board of Directors may assign sub-committee, one or many directors, or other persons to act in behalf of Board of Directors, which be under control of Board of Directors, with specifying condition and term of such assignment as reasonably and suitably to necessity of company's business operation, and may cancel, revoke, change, or correct any and all assignments if it is necessary.

Foresaid assignment shall not empower to consider and approve any and all interested transaction and conflicts of interest with company or affiliates, unless approval on any transaction in accordance with its policy and principle that already approved by Board of Directors;

- 7. Providing a meeting of Board of Directors at least every 3 months. Performance of Board of Directors will be evaluated every year.
  - (a) Shall no operate in same business to and compete with company or being partner in any ordinary partnership or being unlimited partner in limited partnership or being director of private company or other juristic person who operate in same business and compete with company's business, whether for

- their own or other benefits, unless the meeting of shareholders had been acknowledged before assigning;
- (b) Shall not hesitate to inform company if any direct or indirect interests in agreements signed by company or affiliates, or number of shares or securities in company or affiliates have increased or decreased.

#### 9.3.2 Audit Committee

Our audit committee comprises with 3 members as following;

Name	Position	No. of Meeting Attendance	
		in 2014	
1. Mr. Padetpai Meekhun-iam	Chairman of Audit Committee	12/12	
2. Mr. Virach Aphimeteetamrong*	Member of Audit Committee	12/12	
3. Mr. Satit Chanjavanakul	Member of Audit Committee	12/12	

Note: \* Being a member who has adequate knowledge and experience to verify reliability of financial statement, because Mr. Virach Aphimeteetamrong is certified auditor and president of Accounting Office Dr. Virach And Associates Company Limited including educated bachelor and master in accounting and master and doctor in business management and finance.

Where, Mr. Suphachai Kaewfuang is secretary of audit committee.

#### Terms of Reference of Audit Committee

- 1. Verify company to have financial statements correctly and adequately;
- 2. Verify company to have proper and effective internal control and internal audit system, and consider in independency of audit units, along with confirming in consideration of appointment, repositioning, or laying off chief of internal audit unit or others related to internal auditing;
- 3. Verify company to comply with the laws in Securities and Exchange, regulation of SET, and any and all laws related to company's business;
- 4. Consider, select, and propose to appoint independent person(s) to perform in company's auditor and compensation of those persons, including participate the meeting with auditor without management department at least 1 time a year;
- 5. Consider any and all interested transactions and conflicts of interest to be complying with the laws and regulation of SET. This is to ensure that such transactions are reasonably and highest benefits of company;

- 14
- 6. Prepare report of audit committee and disclosure in annual report form (Form 56-1) and annual report (Form 56-2). Those reports need to be signed by chairman of audit committee and comprised with following information;
  - (a) Opinion in correctness, completeness, reliability of company's financial report;
  - (b) Opinion in adequacy of company's internal control system;
  - (c) Opinion in compliance with the laws in securities and exchange, regulation of SET, or other laws related to company's business;
  - (d) Opinion in suitability of auditor;
  - (e) Opinion in any transaction that may conflicts in interests;
  - (f) Number of meeting of audit committee and attendance of each members;
  - (g) Opinion or overall remark which audit committee obtained from complying with charter;
  - (h) Other transaction deemed that shareholders and investors should be known, under scope of authorities and responsibilities which be assigned by Board of Directors.
- 7. Other missions as assigned by Board of Directors under confirmation of Audit Committee:
- 8. Report operation of audit committee to Board of Directors 1 time a quarter at least, totally 4 times a year at least.

## 9.3.3 Risk Management Committee

Risk management committee comprises with executives from all units who appointed by Board of Directors as;

Name	Position	No. of Meeting	
		Attendance	
1. Mr. Somchai Lovisuth	Chairman of Risk Management Committee	3/3	
2. Mr. Mongkhon Sunnanon	Member of Risk Management Committee	3/3	
3. Miss Kanyapat Jinandet	Member of Risk Management Committee	3/3	
4. Mr. Korn Tangwirun*	Member of Risk Management Committee	2/3	
5. Mrs.Somrudee Suwannaroop	Member of Risk Management Committee	3/3	

Note \*Mr. Korn Tangwirun had resigned from company's employee on 1 February 2015

committee.

Where, Mr. Suphachai Kaeofueang is secretary of risk management

## Terms of Reference of Risk Management Committee

- 1. Regulate policy and scope of operation in company's risk management, including consult to Board of Directors and management department in organizational risk management. These are covered by following 4 types of risk;
  - (a) Financial Risks;
  - (b) Operational Risks;
  - (c) Business Risks;
  - (d) Strategic and Event Risks
- 2. Govern and encourage to provide Enterprise Wide Risk Management, by emphasize on important and Risk Awareness of any factors to support in decision making on suitable resources and processes usage;
- 3. Study, analyze, and evaluate risks and tendency of occurrence that may affect to company either internal or external;
- 4. Propose working plan and reports in adequateness of operation and risk control system to Audit Committee and Board of Director, at least 1 time per quarter;
  - 5. Being centralization of any significant risk governing;
  - 6. Others task as assigned by Board of Directors;
- 7. Risk Management Committee may discuss to independent expert if necessary, by company's expense, with prior approval of Board of Directors.

#### 9.4 Nominating for Director and Chief Executive Officer

Nominating someone to be company's director will be performed by the meeting of shareholders. Board of Directors will consider and select from experiences, knowledge, competency, and qualification as required by the laws, because company have no nomination committee. Thereafter, the meeting of shareholders will select director under principle and method that stated in company's Articles of Association.

#### 9.4.1 Composition and Appointment of Board of Directors

Composition and nomination, appointment, removing, or termination of company's director has been stipulated in company's Articles of Association which summarized as following;

1. Board of Directors comprises with 5 directors at least, and not less than of half of total directors shall have domicile in territory and qualified by the laws;

- 0
- 2. The meeting of shareholders need to nominate directors with following principle and method;
  - (1) A shareholder has vote rights equals to number of his/her shares;
  - (2) Each shareholder may vote to nominate one or many persons to be directors. In case nominate many persons to be directors, vote rights shall not be separated into different for anyone;
  - (3) Anyone who received highest votes, in descending order, will be elected to be director equal to number of supposed directors of such election. In case receiving equal votes and exceed number of supposed directors of such election, it shall be decided by chairman;
- 3. In every general meeting of shareholders, one third of existed directors will be terminated. If directors could not be separated into three parts, number of directors nearest to one third will be terminated. Directors who will be terminated in first and second year after became to listed company shall be selected by lots drawing. Thereafter, in following year, directors who will be terminated are directors who be longest. Terminated directors may be nominated again;
- 4. If director desires to resign, such director shall submit resignation letter to company and such resignation will be effective on its receipt date;
- 5. In case of vacant director caused by any reasons other than terminated by its period, Board of Directors may nominate qualified person and not be prohibited by the laws in Public Company Limited and/or Securities and Exchange to be director instead, unless remained period of director is less than 2 months, such new nominee will be in director only remaining period of previous director.

Resolution of Board of Directors shall be accepted by voting not less than three fourth of remained directors;

6. The meeting of shareholders may decide any director to terminate before its period with voting not less than three fourth of all attended and qualified shareholders, and total number of shares shall not be less than a half of shares held by attended and qualified shareholders.

## 9.4.2 Composition and Appointment of Independent Director

Board of Directors will primarily consider in qualification of any persons who will be independent director, by their qualification and incompatibility of director according to the Public Company Limited Acts, laws in Securities and Exchange, announcement of Capital Market Supervisory Board, and any related announcement, regulation, and/or rules. Moreover, Board of Directors will selects independent directors from experts who experienced and capable in any fields, and then propose the meeting of shareholders to appoint to be company's directors. By this, we have policy to appoint independent directors at least one third of all directors and not less than 3 directors.

### Qualification of Independent Director

- 1. Occupied shares not exceed 1% of all qualified shares of mother company, subsidiaries, joint ventures, or juristic person who may be conflicted, includes any shares occupied by related persons;
- 2. Not being or never been executive director, employee, staff, consultant with salary, or regulator of mother company, subsidiaries, joint ventures, same level subsidiary, or juristic person who may be conflicted, unless being exempt from foresaid characteristic for at least 2 years prior to submitting the permission from the SEC;
- 3. No have a consanguinity or legal registering in father, mother, spouse, and children, included spouse of children, executive, major shareholder, regulator, or nominee of executive or regulator of company or subsidiary;
- 4. Not have or never have business relationship with company, mother company, subsidiary, joint venture, or juristic person who may be conflicted, in which obstructed independent judgment, including not being or never been major shareholder, director who not independent director, or executive of whom having business relationship with company, mother company, subsidiary, joint venture, or juristic person who may be conflicted, unless being exempt from foresaid characteristics at least 2 years before submitting application to the SEC;
- 5. Not being or never been auditor of company, mother company, subsidiary, or juristic person who may be conflicted, and not being major shareholder, director who not independent director, executive or managing partner of auditing office which auditor of company, mother company, subsidiary, joint venture, or juristic person who may be

before submitting for permission to the SEC;

- 6. Not being or never been professional service provider whose business includes legal or financial consultation, who receives more than 2 million Baht per annual service fee from company, mother company, subsidiary, joint venture, or juristic person who may be conflicted; in case professional service provider is juristic person shall be included major shareholder, director who not be independent director, executive or managing partner of such professional service provider, unless being exempt from foresaid characteristics at least 2 years before submitting for permission to the SEC;
- 7. Not being appointed committee by the representative of company, major shareholder, or related shareholder to company's major shareholder;
- 8. No other characteristics preventing the independent opinion on company's operation.

# 9.4.3 Composition and Appointment of Audit Committee

Board of Directors will appoint at least 3 members of audit committee from company's independent directors who qualified by the laws in Securities and Exchange including any and all announcement, regulation, and/or rules of the SET. In addition, independent director who is audit committee shall have more following qualification;

- 1. No being director who assigned by Board of Director to decide in business operation of company, mother company, subsidiary, joint venture, same level subsidiary, or juristic person who may be conflicted;
- 2. Not being director of mother company, subsidiary, or same level subsidiary, in which only be listed company;
- 3. Having knowledge and experience adequately to function in audit committee; and at least one member of audit committee have knowledge and experience adequately to verify reliability of financial statements.

Term of each member of audit committee is 3 years.

## 9.5 Inside Information Using

1. Executives shall report occupation of company's securities and changing in its occupation to the Securities and Exchange Commission (SEC), in accordance with Section

59 of the Securities and Exchange Acts B.E.2535, including any amendment in the future (if available).

Term "Executives" means director, manager, or first 4 level of management officer followed by manager, anyone who positioned in equivalent to fourth executive, and accounting or financial executive at manager level and up or equivalent, who have functioned to prepare and submit the SEC report of occupation in company's securities whether belonging of their own name, spouse, and underage children.

- 2. Directors, executives, managers, and employees who known in company's inside information are prohibited to disclosure such inside information to outer person or anyone who not related to, and prohibited to trading in company's securities within 1 month before company's financial statements have been publicized;
- 3. Directors, executives, managers, and employees are prohibited to use company's inside information which not be publicized and significant to price changing of company's securities to use for their own interests and/or trading company's securities. If not, they will be litigated and punished in accordance with the laws, under individual causation of case by case;
- 4. In case director, executive, manager, or employee has defaulted in criminal under the laws in securities and exchange, company will punish heavily as one or more following;
  - a) Reduce wage or compensation and other benefits that may receive;
- b) Retire, fire, or dismiss of director, executive, manager, or employee, by assumed that willingly damaged to company, and if company's director has defaulted, punishment will be considered by the meeting of shareholders;
- c) Report such default to the Stocks Exchange of Thailand and/or the Office of Securities and Exchange Commission;
  - d) Legally litigating;
- e) Other operation according to resolution of Board of Directors or the meeting of shareholders.

# 9.6 Compensation of Auditor

Audit Committee had recommendation to Board of Directors propose to the annual general meeting of shareholders year 2014 to appoint either Mrs. Saifon Inkaeo, certified auditor registration number 4434 or Mr. Wichat Loketkrawi, certified auditor registration number

4451 or Miss Kamonthip Loetworathep, certified auditor registration number 4377 of EY Office Company Limited, to be company's auditor for year 2014 with following compensation;

Particulars	Paid Compensation of Auditor
(Unit : Baht)	Year 2014
(1) Annual Audit Fee	450,000
(2) Verification fee for quarter financial	375,000
report, 125,000 Baht per quarter, total	
3 quarters	
(3) Audit fee for financial statements	100,000
which submit to Board of	
Investment of Thailand (BOI)	
(4) Total compensation of auditor	925,000

Note: No longer compensation will be paid.

### 9.7 Complying with Code of Best Practices of Stocks Exchange of Thailand

Company specifies all directors to comply with Code of Best Practices of Stocks Exchange of Thailand. Board of Directors musts understand and acknowledge in their roles and responsibilities together with complying with the laws and company's adjectives and Articles of Association, along with resolution of the meeting of shareholders by honesty and prefers to interests of company and shareholders. So that, Board of Directors will regulate policy, business target, business plan, and company's budget, along with govern management department to operate under its policies, plans, and budgets efficiently and effectively for optimum benefits of company and shareholders.

#### Policy in Interests Conflict

We regulated protective measurement in interests conflict that may occurred by related party transaction and others who may be conflicted; that stakeholder of any matters will could not be participated into approving of such matters, by respects to pricing or compensating need to be under general business and condition and emphasizes on company's interests. Board of Directors shall maintain company to comply with the laws in securities and exchange and related regulation, announcement, order, or rule of the Capital Marketing Supervisory Board and Stocks Exchange of Thailand, together with complying with

regulation in disclosure of related party transaction and acquisition and distribution of materiality assets, including performing under accounting standard specified by Accountant Association.

Furthermore, we will provide the audit committee or independent expert, as the case may be, to verify and make opinion in suitability of price and reasonability of transaction, and disclosure related party transaction under principle and method specified by SEC and SET, including illustrate into notes of financial statements which already checked or verified by company's auditor, annual report form (Form 56-1), and annual report (Form 56-2).

### Internal Control System

We regulated governance policy for all units to operate systematically and efficiently under company's objects and targets by maintain and use resources economically and suitably. There are efficient and concise risks evaluation and management. Individual unit has to provide standardized operating system and adequate internal control to manage any risks in proper level and no affect to significant operation of company. Communication and development in any units will be provided for employees' inner to performing under good and suitable procedures, including related laws and regulations, and always ready to be evaluated and verified, with following guidelines;

- (1) Providing adequate control environment by being under function and responsibility of all executives to maintain and verify their internal operating system to efficiency, effectively, and correctly according to company's code of conducts. Internal control system shall be concise and verifiable. All units have to prepare manual of code of conducts to be baseline;
- (2) Providing risk assessment adequately, by each unit will assess their own risk and search for measurement to reduce its affectation or opportunity of its occurrence. All staffs in all level need to participate into such risk assessment to prevent any damages that may occurred;
- (3) Providing control activities in all functions and level according to acceptable risks. Any units will provide standardized operating system and internal control that enough to control their risk to be proper level and not affect to significant operation of company;
- (4) Providing information and communications system that adequate, reliable, and up to date, by always improving and developing information technology for its efficiency

with adequate security, to enhance in effectiveness of operation and management for more reliability, along with using such information in communication thoroughly either internal or external, including have communication and development for all employees in their units need to participate into its operation under proper procedures and related laws and regulation;

- (5) Providing adequate monitoring and evaluation by specify to be function and responsibility of all executives to maintain and verify operating system within their units for its effectiveness and correctly under code of conducts. Audit department will support all executives to provide internal system and examination occasionally to be ensure that all units have effective and efficient internal control system and complied with specified procedures continuously which will also lead to improvement of any operating system of organization for more efficiency and effectiveness;
- (6) Tendency of assessment will focuses on creative and improving. Report prepared by audit office and any units which harmoniously will be submit to the audit committee to certify before take to conducts. If found that some operating system of any units need to improve for more efficiency or concise, it is function of all unit to improve immediately and such improving will be assumed that being responsible by such unit and is a part of annual evaluation of related employees.

#### 10. Corporate Social Responsibility (CSR)

# 10.1 Policy and Overview

We are engrossed to manage and operate business with responsibility towards society and stakeholders such as shareholders, customers, traders, employees and staff, communities, and neighborhoods. We has provided rule of practice against stakeholders under Good Corporate Governance principle, including campaigning for and encouraging employees' conscious mind to participate in any communities' activities for life quality development of employees and surrounding communities and society. 4 of our policies and rules of practices are following;

#### (1) Environment

We intend to run environmentally responsible operation under the following principles;

- Following and complying with environmental laws and regulations;

- Developing and improving production process and the industrial waste management system in order to minimize the impact of pollution on environment and to comply with ISO14000;
- Creating environmental awareness among employees at all levels to responsible in environmental both in- and outside the plant;
- Preparing operation plans and constantly monitoring and evaluating its outcome;
- Improving the plant and surroundings to become to a "Green Plant".

### (2) Safety and Occupational Health

Safety and occupational health of employees is our primary responsibility and major factor for our success and growth. We, therefore, stipulated following policies and principles:

- Complying with laws and regulations relating to safety and occupational health;
- Minimizing and controlling risks in hazardous working conditions;
- Providing measure in safety prevention and protective equipment for employees while working;
- Always training employees in accident prevention and management;
- Establishing a safety, occupational health and environment committee to considering action plans and monitoring and evaluating its performance.

## (3) Natural Resource Conservation

We emphasizes on efficiently use of natural resources with following resource management strategies consecutively;

## (a) Energy conservation

- Utilizing biogas from wasted water treatment system in lieu of fuel oil;
- Using high-efficient and power-saving devices to reduce electricity consumption;
- Establishing energy audits for optimal efficiency of electricity consumption;
- Training employees to understand and aware in their responsibility to conserve all energy in the plant.

### (b) Water resource and wastewater treatment

- Checking raw water treatment system and devices in transmission system to prevent loss of water resulting from leakage or damaged devices;
- Recycling water from treatment system to use in the production process of ethanol;
- Regularly checking water quality to prevent undesirable effects on the quality of ethanol output;
- No discharge of treated wastewater into the environment in compliance to "Zero Discharge" measure;
- Promoting economical use of water for consuming.

## (c) Air Pollution Management

- Regularly improving biogas production efficiency to prevent leaking into the atmosphere;
- Checking fuel combustion system by schedule to ensure that the quality of exhausted air meets to standards of the Industrial Works Department;
- Checking air quality every 6 months.

### (4) Social Responsibility

We are well aware that "society" -- from small society of employees who play a vital role in strengthening the organization's potentiality and competitiveness to extended society at communal and national levels -- is a main factor of our sustainability and steady growth. We began at small society in our organization, namely, staffs who are core of potentiality and competitiveness, to communities and nation society. We have several activities of individual societies as following;

#### (a) Organization level

- Developing skills of employees at all levels; creating intraorganizational knowledge towards competence management;
- Encouraging employees to illustrate their opinions;
- Encouraging employees to participate into community development.

#### (b) Community level

- Conserving natural resources and environment;

- Promoting and developing quality of life;
- Enhancing youth education and learning in the community;
- Encouraging learning and interest in culture, ethics and dhamma as foundation for the development of quality of life for youths.

#### (c) National level

- Supporting in environment conservation activities;
- Supporting in development of learning, public mind and social responsibility among youths.

## 10.2 Operation and Reporting

Now, we are preparing co-developed business project which and shown in social responsibilities by established working team and appointed expert to be project consultant. We have planned to prepare Sustainability Report according to report guideline in sustainability development of Global Reporting Initiative (GRI G3.1) in year 2015 and propagate to related persons to acknowledge in our policy and operation principle that emphasize on clean energy for sustainable growth under vision of "Being leader in alternative energy development for better environment and society."

With foresaid clean energy policy, indoctrinating with organizational culture of mindful and emphasize in environment either internal or external, along with surrounding societies and related persons. We are emphasizing on good corporate governance, morality, transparently disclosure and provable, and complying with any and all laws and regulations. This is to be supporting mechanism for company's growth and development constantly, sustainably, and systematically.

Moreover, we engrossed in friendly environmental operation, by focused on development and improvement of manufacturing processes and environmental management, together with responsible to society either internal or external, along with creating green network for sustainability development. We have provided channels to communicate and tolerate opinion. Codes of conducts against company's stakeholders are following;

### 1. Shareholders and Investors

Company's shareholders and investors means any and all shareholders, fund, investors, and securities analyzers, along with stakeholders in operating outcome and changing in company's securities price, in which company has run business honestly, morally, and ethically, and will improve our business to growth with good outcome to make proper

rewards to shareholders and investors constantly and sustainably, under code of practices equitably.

#### 2. Customers

We engrossed to produce and distribute ethanol for fuel with quality under standard, along with respected to working safety standard and aware of satisfaction of customers. Therefore, we have taking ISO 9001:2008 to use in our organization by set quality policy that; "Creating mindfulness and pay attention to responding in customers' requirement with responsibilities, rapidly, and sincerely." With respects to continuity of business operation, we then set quality policy that; "Developing and improving manufacturing processes constantly."

## 3. Suppliers and/or Creditors

We have policy to creating good relationship to suppliers and/or creditors, run business based on supporting equitably to both parties, treat to suppliers and/or creditors neutrally, by respects in optimum interests of company, avoid any matters that may be conflicted in interests, including strictly execute agreements, to conjointly achieve interests.

## 4. Competitors

We have policy to treat with our competitors based on fair competitive and not seek for secret information of competitors by dishonest or improper methods. Competition shall be carrying on equitably; not distort, fake, or use incorrect methods of good competition.

## 5. Staffs

We emphasizes on our employees including safety working environment and sanitary, pay attention to safety of employees who are our core resources that help to support and force organization into its achievement, and respects to human rights. Therefore, we then have policy to take care our employees for good life qualities with fair employment, safety, proper welfares, progressive opportunities, and engross to operate in environmental under any and all regulations and rules to prevent any accidences and hazard that may effect to employees and environment.

### 6. Government and Governing Authorities

Company runs business to reinforce and develop Thailand growth by abiding on related laws, measures, rules, and regulations, and under general business custom. Moreover, we had fully participated to government and governing authorities to make correct

understanding and develop renewable energy to be national sustainable energy, either information exchanging, technology linkage and exchange with international entrepreneurs, opinion for industry development, or joint in lecturing for correct understandings.

#### 7. Community and Society

We had jointly responsible to community and society and ready to keep step with community and society. We began alternative energy project by hearing opinions from and providing clear information to community, giving opportunity of surroundings people to work with project development. After project development completed, we had recruited generalist and interested in alternative energy business, mostly lived around our project, to work and maintain in the project. Thus, this was aid and make participation to develop their local.

Moreover, we had emphasized on abiding all standard in safety, secure, sanitary, and environment correctly and properly, and respects to effect on natural resources and environment, and surrounding communities, encourage and make mindful in quality of occupational health and environment, including support education to youth, public activities, developing social, community, and environment, religious maintaining, and natural resources conservation.

## 10.3 Business Operation that Effect to Social Responsibility

We had no legal disputation or claims in any environmental impact that may cause to legal disputation. We became aware of relying and supporting society at factory location. Therefore, we had developed surroundings and our business simultaneously – for instance, road and tunnel construction, employment creation, etc. Furthermore, we also arranged activities in any festivals that resulted to be good relationship between our solar farm and society.

#### 10.4 Activities for Social of Year 2014

On 16 April 2014, Thai Agro Energy Public Company Limited had encouraged Yok Thong Songkran Festival at Sra Bua Kam temple.





On 4 June 2014, employees of Thai Agro Energy Public Copany Limited had jointly donated blood, which arranged by Suphanburi Red Cross Chapter and Danchang Red Cross District Branch, at conference room of Danchang District.







On 24 April 2014, we had endowed to Wang Nam Chon Health Promoting Hospital for improving Thai Traditional Room, in order to suitable services in alternative medical together with conventional medical.





On 9 June 2014, Executives and employees of Thai Agro Energy Public Company Limited joined to Nong Makha Mong Sub-district Administrative Organization, representatives of government and private, and folks of village No. 3 and 10 had opened project of tunnel construction and asphalt road improving, which endowed by Thai Agro Energy Public Company Limited.



Thai Agro Energy Public Company Limited had endowed to Dan Chang district and Nong Ya Sai district, Suphanburi province, for Thai Tradition of Buddhist Lent Day.







On 26 June 2014, Company's representative had participated in Conformity Creating Project for Reformation, Local Conformity Center, Nong Makha Mong Sub-district Administrative Organization, at Ban Sra Bua Kam School, Nong Makha Mong sub-district, Dan Chang district, Suphanburi province.







Thai Agro Energy Public Company Limited together with all employees were host of Buddhism Robes Presentation to temples surrounding of our factory, Dan Chang district, Suphanburi province.





On 3 December 2015, Employees of Thai Agro Energy Public Company Limited had jointly donated blood at conference room of Dan Chang District.





Public Relation Department joined with Management and Purchasing Department and employees had participated into  $11^{th}$  Eating Fishes – Mushrooms – Delicious Foods of Dan Chang District Festival, at multipurpose field, Dan Chang District Office





# 10.5 Prevention on Engagement in Corruption

We are engrossed to anti all corruptions. Board of Directors has set policy in anti-corruption to creating conscious mind of any and all directors, executives, and staffs on hazards of corruption, along with making correct values and confidence to any and all stakeholders, for long-term permanently organization development.

Any and all directors, executives, and staffs have been prohibited to act or accept any and all corruption, both directly and indirectly, including all related business and authorities in domestic and international. We always provided investigating or examination, according to policy in anti-corruption, along with reviewing operation guidelines and regulations to be corresponding with business changing, regulation, and related laws.

- (1) All company's directors, executives, and staffs shall be complied with policy in anti-corruption and business ethics, and shall not be engaged in any and all corruption matter, neither directly nor indirectly;
- (2) If found any action that may be corrupted, all company's staffs shall not avoid or neglect to inform their superior or responsible person and go along to investigate any facts. If there is doubt, they shall advise to their supervisor or any person who be assigned to responsible in business ethics.
- (3) We give fair treatments and protect any staffs who inform in corruption that related to our company with protective measurement of appellant or participant on reporting corruption as stipulated in rule and guideline of whistle-blowing or petition of interested person.
- (4) Someone who corrupts or uphold corruption is defaulted in business ethics and shall be punished by company discipline and the laws.
- (5) We become aware of importance in knowledge propagation and understanding making in policy in anti-corruption to others who worked with us.

To be acted under policy in anti-corruption, we have operation guideline as following summary;

- (1) Setting policy in anti-corruption to cover human resource management, as procure or selection, promotion, training, performance evaluation, and rewarding. All superiors in any level need to try to understand with their subordinates in this policy to use in any and all activities of their responsible and controlling for more efficiency and effectiveness.
- (2) Operating in high risk matters of corruption, any and all directors, executives, and staffs must perform carefully, especially following matters;
  - (2.1) Not offer, demand, agree or accept any and all reward or bribe to or from others person or authority, in any types, neither directly nor indirectly, that requite and subserve to any action or wish in any benefits related to our business;
  - (2.2) Receiving or giving of donation or supporting need to be clearly, transparently, and correctly under the law, and be ensure that such donation and supporting shall not be claimed as bribe;
  - (2.3) Receiving or offering bribe in any and all business, our operation, and government's communicating are prohibited, and need to be

transparently and honestly, along with need to comply with the law strictly.

# 11. Internal Control and Risks Management

### 11.1 Report of Audit Committee

Board of Directors had appointed audit committee who independently and not related to executives. In 2014, Audit Committee had held the meeting totally 8 times, to consider in any materiality matters with independency. In addition, they had joined meeting with auditor, internal auditor, and related executives, in which its summarization are following;

Verifying quarter financial statements year 2014 of company, including related party transactions and any transaction that may conflict in interests, together with management department and audit department, by inviting auditor to join in all meeting that considered in quarter and annual financial statements, to be ensure that company's financial statements had been prepared correctly and disclosed materiality information adequately and under general accepted accounting standard. Furthermore, Audit Committee had held a meeting with auditor without company's executives to consider scope of guideline and plan of annual auditing of auditor.

Verifying internal control system to concisely, confirming audit plan, and acknowledging results of auditing, along with following and improving its auditing results, to emphasize on auditing performance to be under international standard and adequately. Results of internal audit had been always reported to Board of Directors regularly and had verified to comply with related laws, regulations, and requirements. Moreover, considering in selection of auditor and in proper compensation of auditor and presented to Board of Directors for propose to the meeting of shareholders to appointing to be auditor for year 2015.

In 2014, Audit Committee had independently performed in any tasks assigned by Board of Directors and company's executives, which paid attention to management under good corporate governance, business ethics, risks factors that may affects to company, complied with related laws, prepared correct and reliable financial statements under general accepted accounting standard, disclosed information and operation transparently with adequate internal control system, and not found materiality errors.

## 11.2 Evaluation on Sufficiency of Company's Internal Control System

In the meeting of Board of Directors No. 9/2556 on 20 September 2013, which three of audit committees had been attended, Board of Directors had assessed adequateness of our internal control system by inquired its details to management department, and then concluded that; by assessment of company's internal control system in 5 section as;

- 1. Organizational Control and Environmental Measures
- 2. Risk Management Measure
- 3. Management Control Activities
- 4. Information and Communication Measure
- 5. Monitoring

Board of Directors deemed that; company has internal control system in transaction to major shareholders, directors, executives, or related person to those, adequately. For others internal control, Board of Directors deemed that company has adequate and proper internal control system also.

## 11.3 Management on Internal Control

We have an audit committee to function in verifying our internal control and audit system to suitable and effectively, along with verifying company's performance to be under the laws in securities and exchanges, requirements of SET, and related laws in company's business. Audit committee had held the meeting quarterly to consider and provide correct financial statements and disclose information completely and sufficiently, including consider in any related party transaction or any transaction may conflict on interests to be under the laws and regulation of Capital Market Supervisory Board and SET. In the meetings of audit committee had been participated by auditor to make recommendation in company's auditing.

Moreover, company also have internal audit department to investigate our internal control system and report to Audit Committee by quarterly. However, in June 2013, company had employed Banchee Kit Borihan Co., Ltd. to audit and evaluate adequateness and effectiveness of internal control system, make recommendation, and follow important improving, by report directly to audit committee. Today, we have no longer employed Banchee Kit Borihan Co., Ltd. However, audit committee may consider to employ outsource to audit specific internal control system additionally if it necessary in the future.

Audit committee had confirmed to appoint Mr. Suphachai Kaeofueang to be Internal Audit Manager, and deemed that his education, experiences and trainings are sufficient to perform in this position efficiently and effectively (his resume and details appeared in attachment number 3.)

Audit committee has function to consider independency of internal audit department along with make confirmation in appointment, removing, and transferring internal audit manager who responsible in company's internal audit.

## 12. Related Party Transaction

# 12.2 Measures or Processes of Approval on Related Party Transaction

If company has necessity in related party transaction with any persons who may be conflicted on interests, Board of Directors will respects to company's highest interests in such transaction. Company will assign audit committee to recommend in its necessity, reasonability, and suitability of such transaction, by consider in any and all conditions to be under normal business operating and compared its price with other persons or market price. In case an audit committee had not skillful in related party transaction that may occurred, company may assign special expert, such as auditor, valuer, law office, etc., who independently from company and any person who may conflict, to make recommendation in such transaction to use for decision making of Board of Directors and/or audit committee and/or shareholders, as the case may be.

Moreover, company has measured no executives or someone who may conflict of interests or stakeholders may participate into approving of transaction which related to own interests directly or indirectly. Board of Directors shall maintain company to comply with the laws in securities and exchange and regulation, announcement, order, or requirement of the Stocks Exchange of Thailand, including comply with requirement in disclosure of related party transaction and acquisition or distribution of materiality assets of company or subsidiary, and accounting standard specified by Federal of Accounting Professional. Related party transaction shall be disclosed in notes of financial statements which verified or audited by company's auditor, annual report form (Form 56-1), and annual report (Form 56-2) as required by the laws in securities and exchange.

# 12.3 Policy or Trends of Related Party Transaction in Future

Thereafter company became to listed company, we have no longer jointly use credit amount with LANNA, because the commercial bank has credit amount to company with condition of; if company became to listed company, such commercial bank will consider supporting in financial of company with credit amount that jointly used with LANNA. However, if company has necessity in related party transaction with whom may conflict on interests, company shall perform under measures and processes of approval on related party transaction, including director who related in such interests shall not participate into such approving. This is not to lead of conflicts on interests and for optimum benefits of all shareholders.



# PART III

# Financial Position and Operational Results

# 13. Financial Highlights

#### Financial Statements

## The Auditor's Report

The financial statements of Thai Agro Energy Public Company Limited has been audited by auditor from EY Office Limited (Previously named : Ernst & Young Office Limited) detailed summary are as follows :

## Independent Auditor's Report

The Auditor has audited the financial statements of Thai Agro Energy Public Company Limited, which comprise the statement of financial position as of 31 December 2012, 2013, 2014, and the related statements of comprehensive income, changes in shareholders' equity and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

## Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Thai Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

## Auditor's Responsibility

Auditor's responsibility is to express an opinion on these financial statements based on auditor. Auditor's conducted my audit in accordance with Thai Standards on Auditing. Those standards require that Auditor's comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of

accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

Auditor's believe that the audit evidence Auditor have obtained is sufficient and appropriate to provide a basis for auditor opinion.

## Opinion

Auditor's opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Thai Agro Energy Public Company Limited as at 31 December 2012, 2013, 2014, its financial performance and cash flows for the year then ended in accordance with Thai Financial Reporting Standards.

# Financial Position and Operational Results

### Statement of Financial Position 2012 - 2014

En anatal anatalan	201	2	20	13	2014		
Financial position	Baht Million	%	Baht Million	%	Baht Million	%	
Assets							
Current assets							
Cash and cash equivalents	5.65	0.23	11.99	0.42	22.26	0.66	
Current investments - open fund	-	-	-	-	0.43	0.01	
Trade and other receivables	96.77	4.00	176.81	6.12	195.00	5.76	
Inventories	77.29	3.19	84.15	2.91	113.47	3.35	
Advance payments for purchase of goods	46.64	1.93	366.88	12.70	629.23	18.59	
Other current assets	5.18	0.21	17.15	0.59	36.23	1.07	
Total current assets	231.52	9.56	656.98	22.75	996.62	29.44	
Non-current assets							
Property, plant and equipment	2,168.46	89.58	2,206.75	76.41	2,372.89	70.10	
Intangible assets	2.43	0.10	1.96	0.07	2.04	0.06	
Deferred tax assets	17.87	0.74	21.91	0.76	12.95	0.38	
Other non-current assets	0.46	0.02	0.46	0.02	0.50	0.01	
Total non-current assets	2,189.22	90.44	2,231.07	77.25	2,388.38	70.56	
Total assets	2,420.74	100.00	2,888.05	100.00	3,385.00	100.00	
Liabilities and shareholders' equity							
Current liabilities							
Short-term loans from financial institutions	513.00	21.19	744.68	25.78	963.15	28.45	
Trade and other payables	86.72	3.58	187.27	6.48	133.99	3.96	
Current portion of liabilities under financial	-	-	-	-	0.91	0.03	
lease agreements							
Current portion of long-term loan	180.00	7.44	180.00	6.12	180.00	5.32	
Provision for short-term employee benefits	3.88	0.16	3.11	0.11	2.54	0.08	
Other current liabilities	8.60	0.36	12.33	0.43	12.17	0.36	
Total current liabilities	792.21	32.73	1,127.39	39.04	1,292.76	38.19	

Financial position	201	2	20	13	2014		
Financial position	Baht Million	%	Baht Million	%	Baht Million	%	
Non-current liabilities							
Liabilities under financial lease	-	-	=	-	4.32	0.13	
agreements - net of current portion							
Long-term loan - net of current portion	540.00	22.31	657.76	22.78	477.76	14.11	
Provision for long-term employee	1.14	0.05	1.83	0.06	0.99	0.03	
benefits							
Total non-current liabilities	541.14	22.35	659.59	22.84	483.07	14.27	
Total liabilities	1,333.35	55.08	1,786.98	61.88	1,775.83	52.46	
Shareholders' equity							
Share capital							
Registered	800.00	33.05	1,000.00	34.63	1,000.00	29.54	
Issued and fully paid up	800.00	33.05	800.00	27.70	1,000.00	29.54	
Share premium	-	-	-	-	188.79	5.58	
Capital reserve for share-based payment	0.56	0.02	0.56	0.02	0.56	0.02	
transactions							
Retained earnings							
Appropriated - statutory reserve	65.10	2.69	100.00	3.46	100.00	2.95	
Unappropriated	221.73	9.16	200.51	6.94	319.82	9.45	
Total shareholders' equity	1,087.39	44.92	1,101.07	38.12	1,609.17	47.54	
Total liabilities and shareholders' equity	2,420.74	100.00	2,888.05	100.00	3,385.00	100.00	

# Statement of Comprehensive Income 2012 - 2014

Operational Results	201	2	2013		2014	
Operational nesults	Baht Million	%	Baht Million	%	Baht Million	%
<u>Revenues</u>						
Sales	1,349.86	99.93	1,659.05	99.96	2,496.28	99.83
Other income	1.01	0.07	0.70	0.04	4.15	0.17
Total revenues	1,350.87	100.00	1,659.75	100.00	2,500.43	100.00
<u>Expenses</u>						
Cost of sales	1,070.42	79.24	1,390.60	83.78	2,165.52	86.61
Selling expenses	7.74	0.57	10.28	0.62	7.38	0.30
Administrative expenses	53.08	3.93	79.60	4.80	42.01	1.68
Total expenses	1,131.24	83.74	1,480.47	89.20	2,214.91	88.58
Profit before finance cost and income tax	219.63	16.26	179.28	10.80	285.52	11.42
Finance cost	54.13	4.01	65.63	3.95	57.26	2.29
Profit before income tax	165.50	12.25	113.64	6.85	228.26	9.13
Income tax revenue (expenses)	(1.43)	(0.11)	4.04	0.24	(8.95)	(0.36)
Profit for the year	164.07	12.15	117.68	7.09	219.31	8.77
Earnings per share	0.21		0.15		0.22	
(Fully Diluted) (Baht)						
Earnings per share	0.21		0.15		0.24	
(Weighted Average) (Baht)						
Par Value (Baht)	1.00		1.00		1.00	

# Statement of Retained Earnings 2012 - 2014

(Unit : Baht Million)	2012	2013	2014
Unappropriated retained earnings brought	65.96	221.73	200.51
forward			
Profit for the year	164.07	117.68	219.31
Profit for appropriated	230.03	339.41	419.82
<u>Less</u> Dividend paid	-	(104.00)	(100.00)
Statutory reserve	(8.30)	(34.90)	-
Unappropriated retained earnings carried	221.73	200.51	319.82
Forward			

# Statement of Cash Flows 2012 - 2014

(Unit : Baht Million)	2012	2013	2014
Cash flows from operating activities			
Profit before tax	165.50	113.64	228.26
Adjustments to reconcile profit before tax to net cash			
provided by (paid from) operating activities:			
Depreciation and amortization	86.01	99.33	105.82
Reversal of reduction of inventories to net realizable value	3.57	(9.70)	-
Gain on sales of property and equipment	(0.34)	-	(0.68)
Gain on sales of current investments	-	-	(0.43)
Write-off of fixed assets and intangible assets	6.54	-	-
Provision for long-term employee benefits	1.48	0.98	0.87
Interest income	(0.41)	(0.19)	(0.26)
Interest expenses	53.73	58.64	57.08
Profit from operating activities before changes in operating	316.08	262.71	390.66
assets and liabilities			
Operating assets (increase) decrease			
Trade and other receivables	(4.75)	(80.05)	(13.31)
Inventories	33.22	2.85	(29.32)
Cassava and sugar cane plantation costs	5.72	-	-
Advance payment for purchase of goods	(39.77)	(320.25)	(262.35)
Other current assets	(2.72)	(11.97)	(19.08)
Other non-current assets	(0.03)	-	(0.04)
Operating liabilities increase (decrease)			
Trade and other payables	59.26	(24.19)	62.22
Other current liabilities	(0.64)	0.65	2.63
Provision for long-term employee benefits	-	(1.06)	(2.28)
Cash from (used in) operating activities	366.37	(171.30)	129.13
Cash received from interest income	0.41	0.19	0.27
Cash paid for interest expenses	(53.57)	(50.34)	(59.79)
Net cash from (used in) operating activities	313.21	(221.45)	69.61

(Unit : Baht Million)	2012	2013	2014
Cash flows from investing activities			
Acquisitions of property, plant and equipment	(93.73)	(104.50)	(316.39)
Acquisitions of current investments	-	-	(601.00)
Acquisitions of intangible assets	(0.16)	(0.26)	(0.91)
Proceeds from sales of current investments	-	-	601.00
Cash receipt from government grants	9.58	12.34	8.62
Proceeds from sales of property and equipment	1.08	-	2.13
Net cash used in investing activities	(83.22)	(92.42)	(306.55)
Cash flows from financing activities			
Increase in short-term loans from financial institution	(50.00)	524.21	218.46
Repayment of long-term loan	(180.00)	(180.00)	(180.00)
Cash paid for liabilities under financial lease agreements	-	-	(0.04)
Cash paid for dividend	-	(24.00)	(180.00)
Cash received from additional ordinary shares	-	=	388.79
Net cash from financing activities	(230.00)	320.21	247.21
Net increase in cash and cash equivalents	(0.01)	6.34	10.27
Cash and cash equivalents at beginning of year	5.66	5.65	11.99
Cash and cash equivalents at end of year	5.65	11.99	22.26

# Ratio Analysis

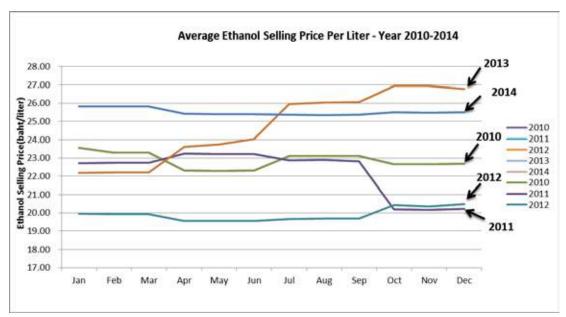
Ratio	Unit	2012	2013	2014
<u>Liquidity Ratio</u>				
Current Ratio	Times	0.29	0.58	0.77
Quick Ratio	Times	0.13	0.17	0.17
Cash Flow Liquidity Ratio	Times	0.27	(0.23)	0.06
Account Receivable Turnover Ratio	Times	14.30	12.13	13.43
Average Collection Period	Days	25.17	29.68	26.81
Inventory Turnover Ratio	Times	54.48	95.83	140.38
Average Days Sales	Days	6.61	3.76	2.56
Account Payables Turnover Ratio	Times	21.54	21.08	25.14
Payment Period	Days	16.72	17.08	14.32
Cash Cycle	Days	15.07	16.36	15.06
Profitability Ratio				
Gross Profit Margin	%	20.70	16.18	13.25
Operating Profit Margin	%	16.20	10.76	11.27
Other Profits	%	0.07	0.04	0.17
Cash to Earning	%	143.27	(124.01)	24.74
Net Profit Margin	%	12.15	7.09	8.77
Return On Equity Ratio	%	16.32	10.75	16.18
Efficiency Ratio				
Return On Assets Ratio	%	6.76	4.43	6.99
Return On Fixed Assets Ratio	%	11.45	9.88	14.21
Total Assets Turnover Ratio	Times	0.56	0.63	0.80

Leverage Ratio				
Debt to Equity Ratio	Times	1.23	1.62	1.10
Interest Coverage Ratio	Times	6.76	(2.31)	2.37
Debt Service Coverage Ratio – Cash basis	Times	1.39	(0.58)	0.19
Dividend Payout Ratio	%	14.63	67.98	68.40

## Management Discussion and Analysis: MD&A

### 14.1 OVERALL OPERATING RESULTS

The Company's revenue of the year 2014 was Baht 2,500.43 million, which increased from the period year by 50.65 percent. Meanwhile, net profit in year 2014 was Baht 219.31 million, which increased from the period year by 86.36 percent. This was due to an increase in ethanol sales volume and the price in accordance with a continuous increase in the domestic ethanol demand due to the termination of Gasoline 91 and promotion of the production of automobiles that use Gasohol E20 as well as E85 by the government. As a result, the revenue and net profit from ethanol business thus increased significantly.



The ethanol sales volume in year 2014 increased from the period year by 45.86 percent, and the average ethanol selling price in year 2014 increased from the period year by 3.61 percent. Also, the average domestic demand of ethanol increased from 2.60 million liters per day in late 2013 to 3.24 million liters per day in 2014, increased from the period year by 24.62 percent. This was due to since the termination of Gasoline 91 and promotion of the production of automobiles that use Gasohol E20 as well as E85 by the government. Therefore, the demand for using ethanol as a mixture in gasohol has been increasing continuously.

#### **OPERATING RESULTS ANALYSIS**

Revenue	2014		2013		Increase (Decrease)	
nevenue	Baht Million	%	Baht Million	%	Baht Million	%
Revenue from Ethanol Business	2,496.28	99.83	1,659.05	99.96	837.23	50.46
Other Revenue	4.15	0.17	0.70	0.04	3.45	495.86
Total Revenue	2,500.43	100.00	1,659.75	100.00	840.68	50.65

**REVENUE:** The Company's total revenue in year 2014 was Baht 2,500.43 million, which increased from the previous year by Baht 840.68 million or 50.65 percent. This was due to the revenue from ethanol sales was Baht 2,496.28 million or 99.83 percent of total revenue, increased from the period year Baht 837.23 million or 50.46 percent, this was due to the ethanol sales volume was increased as mentioned above. The other revenue was Baht 4.15 million or 0.17 percent of total revenue, increased from the period year by Baht 3.45 million or 492.86 percent.

Evnoncos	2014		2013		Increase (Decrease)	
Expenses	Baht Million	% Sale	Baht Million	% Sale	Baht Million	% Sale
Cost of sale	2,165.52	86.75	1,390.60	83.82	774.92	55.73
Selling and administrative	58.34	2.34	85.84	5.17	(27.50)	(32.04)
expense						
Financial cost	57.26	2.29	65.63	3.96	(8.37)	(12.75)
Total Expenses	2,281.12	91.38	1,542.07	92.95	739.05	47.93

**EXPENSES:** The Company's expenses in year 2014 totaled Baht 2,281.12 million, which increased from the previous year Baht 739.05 million or 47.93 percent, due to the following reasons;

- (1) Cost of ethanol sales in year 2014 increased from the previous year by Baht 774.92 million or 55.73 percent. This was due to increases in ethanol sales volume and cost of sales of 45.86 and 55.73 percent thanks to an increase in molasses (raw material) price, which is a major cost, from the period year by 7.46 percent.
- (2) Selling and administrative expenses in year 2014 decrease from the previous year by Baht 27.50 million or 32.04 percent due to the cost of ethanol production line no.1, which had a temporary shutdown for repairs and maintenance in year 2013 but resumed its normal operation in year 2014.
- (3) Financial expenses in year 2014 decrease from the previous year by Baht 8.37 million or 12.75 percent. This was due to there were short term and long term loan repayment, resulting in a decrease in interest expense.
- (4) Profit from ethanol business in year 2014 for production line No.2, there was no corporate income tax on the earnings from the ethanol business, having received the Board of Investment

Promotion, B.E. 2520. But corporate income tax for production line No.1 increased Baht 12.99 million since the investment promotion has expired already.

Gross Profit	20	14	2013		
GIOSS FIORE	Baht Million	%	Baht Million	%	
Revenue from sales	2,496.28	100.00	1,659.05	100.00	
Less cost of sales	2,165.52	86.75	1,390.60	83.82	
Gross Profit	330.76	13.25	268.45	16.18	

**GROSS PROFIT:** The Company's gross profit in year 2014 was Baht 330.76 million or 13.25 percent of the sales revenue, which slightly decreased from the previous year with the gross profit of Baht 268.45 million or 16.18 percent. This was due to an increase in the price of raw material, molasses which is considered a major cost as described above.

Net Profit	2014		2013		Increase (Decrease)	
	Baht Million	%	Baht Million	%	Baht Million	%
Net Profit	215.16	98.11	116.98	99.41	98.18	83.93
Other revenue	4.15	1.89	0.70	0.59	3.45	492.86
Total	219.31	100.00	117.68	100.00	101.63	86.36
Net Earnings per Share –Baht per Share	0.24		0.15		0.09	60.00
Remark: Registered per value of Baht 1 per share						

**NET PROFIT:** The Company's net profit in year 2014 was Baht 219.31 million or Net Earnings of Baht 0.24 per share. When compared with the previous year, the Net profit increased by 86.36 percent due to the increase in the average ethanol cost of sales as described above.

### EBITDA AND EBITDA MARGIN

- (1) The Company's EBITDA (Earnings before financial expenses, corporate income tax, depreciation and amortization) is Baht 391.23 million, an increase from the previous year by 39.88 percent due to the increase in profit.
- (2) The Company's EBITDA MARGIN is at 15.65 percent of the total revenues, decreasing from the previous year of 7.15 percent due to the increase in revenue.

# **EARNINGS EFFICIENCY**

- (1)The Company's NET PROFIT MARGIN in year 2014 was at 8.77 percent, which increased of 23.70 percent, as compared with the previous year with the net profit margin of 7.09 percent.
- (2)The Company's RETURN ON EQUITY in year 2014 was at 16.18 percent, an increase of 50.51 percent, as compared with the previous year with the return on equity of 10.75 percent.

(3)The Company's RETURN ON TOTAL ASSETS in year 2014 was at 6.99 percent, increased of 57.79 percent. When compared with the previous year with the return on total assets and return on fixed assets of 4.43 percent. The asset turnover ratio was at 0.80 times, which increased from the same period last year by 26.98 percent.

#### STATEMENT OF FINANCIAL POSITION

	Unit: Bal	Increase (Decrease)			
Financial Position	As at	As at	Baht Million	%	
	December 31, 2014	December 31, 2013	barit withou		
Total Assets	3,385.00	2,888.05	496.95	17.21	
Total Liabilities	1,775.83	1,786.99	(11.16)	(0.62)	
Total Shareholder's Equity	1,609.17	1,101.06	508.11	46.15	
Book Value-Baht per Share	0.39	28.47			
Remark: Registered per value of Baht 1 per share					

**ASSETS:** The Company's total assets as at December 31, 2014 increased from the end of 2013 by Baht 496.95 million or an increase of 17.21 percent, consisting of:

- (1) Current assets increased from the end of 2013 by Baht 339.64 million or an increase of 51.70 percent, due to (A) cash and cash equivalent increased from the end of 2013 by Baht 10.27 million or 85.65 percent; (B) trade accounts receivable and other receivables increased from the end of 2013 by Baht 18.19 million or an increase of 10.29 percent; (C) inventories increased from the end of 2013 by Baht 29.32 million or an increase of 34.84 percent, most of which were molasses, purchased or reserved for the year 2015, and (D) advances payment for purchase goods decreased by Baht 262.35 million or an increase of 71.51 percent, and (E) other current assets decreased by Baht 19.08 million or a decrease of 111.25 percent.
- (2) Non-current assets increased from the end of 2013 by Baht 157.31 million or an increase of 7.05 percent, due to an increase in land, plant, and equipment.

LIABILITIES: The Company's total liabilities as at December 31, 2014 decreased from the end of 2013 by Baht 11.16 million or a decrease of 0.62 percent, consisting of: (A) Trade accounts payable and other accounts payable decreased from the end of 2013 by Baht 53.28 million or an increase of 28.45 percent, most of which were molasses expenses. (B) Short term and long term loans increased by Baht 38.46 million or a decrease of 2.43 percent, due to Short-term loans. (C) Other liabilities increased by Baht 3.67 million or an increase of 21.25 percent, most of which are provision for allowance for long-term benefits of employees and interest expense.

**TOTAL SHAREHOLDERS' EQUITY:** The Company's total shareholders' equity of the Company as at December 31, 2014 increased from the end of 2013 by Baht 508.11 million or an increase of 46.15

percent, resulting in an increase of the share's book value from Baht 1.37 per share to Baht 1.76 per share. This was due to the increase in net profit of Baht 101.63 million.

Cash Flows	Unit: Baht Million		
	2014	2013	
Cash Flows from (used in) Operating Activities	69.61	(221.45)	
Cash Flows from (used in) Investing Activities	(306.55)	(92.42)	
Cash Flows from (used in) Financing Activities	247.21	320.21	
Net Increase (Decrease) in Cash	10.27	6.34	
Cash at the Beginning of the Period 11.99 5.65		5.65	
Cash at the End of the Period	22.26	11.99	

#### **CASH FLOWS**

- (1) The Company's net cash used in operating activities in year 2014 was at Baht 69.61 million, consisting of: (A) income before corporate income tax and interest payment of Baht 228.26 million; (B) transactions that did not affect the cash such as the depreciation; (C) an increase in operating assets of Baht 324.10 million due to an increase in trade receivable and advance payments for purchase of goods; (D) increase in operating liabilities of Baht 62.58 million due to a decrease in trade accounts payable and other accounts payable, and (E) an increase in interest expense by Baht 59.79 million.
- (2) The Company's net cash used in investment activities in year 2014 was Baht 306.55 million, consisting of: (A) an increase in land, plant and equipment of Baht 316.39 million.
- (3) The Company's net cash used in financing activities in year 2014 was Baht 247.21 million, including (A) a net increase in loan of Baht 218.46 million, (B) the issuance of common shares of Baht 388.80 million, (C) loan repayment of Baht 180 million and (D) dividend payment of Baht 180.00 million.

## ASSET MANAGEMENT CAPABILITY

(1) The Company's trade accounts receivable and other accounts receivable as at end of 2014 were 5.76 percent of total asset. These receivable accounts are not fully due yet amounts of Baht 184.00 million. The provision of doubtful debts are considered based on a review of receivable period and assessment of past debt collection experience. Accordingly, the Company has not experienced in bad debt and has not found any unusual transaction in the period of year 2014 and therefore, there was no provision for doubtful debt in the period of year 2014.

(2) Inventory as at end of 2014 was 3.35 percent of total asset without deterioration of the assets and impact from the lower market price. Therefore, there was no allowance for impairment loss of inventory in period of year 2014.

### LIQUIDITY AND SUFFICIENCY OF CAPITAL

- (1) The Company's current ratio and quick ratio in period of year 2014 were at 0.77 times and 0.17 times, respectively. Even though, the current ratio was lower than normal, the Company still has adequate credit line for working capital in the future.
- (2) The Company's cash cycle in the period of year 2014 was at 15.06 days, a decrease from the end of 2013 by 1.30 days. This was due to the average debt collection period decreased from 29.68 days in the end of 2013 to 26.81 days in period of year 2014. The Company's average holding period decreased from 3.76 days in the end of 2013 to 2.56 days. Moreover, the average payment period decreased from 17.08 days in the end of 2013 to 14.32 days.
- (3) As for investment in 2014, the construction of the fourth bio-gas production pond is completed in the 2<sup>nd</sup> quarter 2014. The bio-gas produced will be used as fuel in ethanol production and in the planned 3-megawatt bio-gas power generating system, with investment of about Baht 190 million. The completion and commencement of 1<sup>st</sup> phase with 1-megawatt power generation are scheduled within the 3<sup>rd</sup> quarter of 2014 and the 2<sup>nd</sup> phase of 2-megawatt on October 2014. The electricity can be used within the ethanol production plant which shall reduce cost of ethanol production. Regarding the constructions of two molasses tank with total capacity of 20,000 tons, having investment budget of about Baht 60 million, is completed in the 2<sup>nd</sup> quarter 2014, increasing the volume of molasses storage from 40,000 tons to 60,000 tons, allowing flexibility in receiving and storing molasses used as the main raw material for ethanol production. This will help with the cost management making the ethanol production cost lower and more effective. The source of investment fund for these projects comes from its own cash generation and the increase in capital from the Initial Public Offering (IPO) as described above.

# **DEBT OBLIGATION**

The company has obligation according to the terms and conditions of the loan agreement with a local commercial bank as follows.

- (1) The company must maintain its debt to equity ratio (D/E ratio) not to exceed 2 times and debt service coverage ratio (DSCR) of no less than 1.10 times in 2014 and no less than 1.25 time in next years until the end of loan agreement, the company was able to maintain the D/E ratio and DSCR as required by the contractual obligation of the loan.
- (2) The lending bank has determined that Lanna Resources Public Co., Ltd. (Lanna) must maintain its shareholding proportion in TAE of no less than 50 percent of the total number of shares

during the whole duration of the loan agreement. Accordingly, Lanna has no plan to decrease its shareholding proportion in TAE to below 50 percent of the total number of shares.

(3) A written approval from the lender bank is required before the company can accrue more debts. Currently, the company has adequate credit line for its working capital for business operation. Additionally, the company has obtained approval from the Office of the Securities and Exchange Commission for trading in public of common shares and the Stock Exchange of Thailand obtained the common shares as registered securities and the trading would begin from June 5, 2014, which will help the company in acquiring additional sources of capital in the future, making the capital structure of the company more appropriate.

(4) The lending bank has stipulated that the company cannot pay dividend to its shareholders, including Lanna, if the company cannot comply with the conditions as stipulated within the loan agreement, such as the maintaining of D/E ratio, DSCR, and maintaining of shareholding proportion of Lanna in the company, etc. Accordingly, the company has never breached the conditions of loan agreements and has been provided with good financial support from lending banks.

#### IMPACT TO FUTURE OPERATIONS

Ethanol selling price for 2015 should not be lower than in 2014. However, It is expected that sugarcane yield in 2015 will be lower than in 2014, which will result in higher molasses price. Accordingly, TAE Is requesting a permission to use raw granulated sugar as a raw material in conjunction with molasses in order to increase its raw material supply for ethanol production and maintain a good profitability as well as in 2014. Additionally, a study on a production of high-test molasses as a raw material for ethanol production is being conducted in order to ensure secured supply of raw material, allowing better lower ethanol production cost in the future





**EYOffice Limited** 33rd Floor, Lake Rajada Office Complex 193/136·137 Rajadapisek Road

Klongtoey, Bangkok 10110 G.P.O.Box 1047, Bangkok 10501, Thailand Tel; +66 2264 9090

Fax: +66 2264 0789-90

ey.com

## บริษัท สำนักงาน ชีวาย จำกัด

ชั้น 33 ควอวรเฉครั้งคว 193/136-137 ถมนรัชดาหิเมก Produce of series 10110 ที่ป.ณ 1047 กรุงเทพฯ 10501 โทรศัพท์: +66 2264 9090 Instria: +66 2264 0789-90

ev.com

## Independent Auditor's Report

To the Shareholders of Thai Agro Energy Public Company Limited

I have audited the accompanying financial statements of Thai Agro Energy Public Company Limited, which comprise the statement of finencial position as at 31 December 2014, and the related statements of comprehenaive income, changes in shareholders' equity and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

## Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Thai Financial Reporting Standards, and for such internal control as menagement determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

## Auditor's Responsibility

My responsibility is to express an opinion on these financial statementa based on my audit. I conducted my audit in accordance with Thai Standards on Auditing. Those atandards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An eudit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material miastatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity'a internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of eccounting estimates made by management, as well as avaluating the overall presentation of the financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.





# Opinion

In my opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Thai Agro Energy Public Company Limited as at 31 December 2014, its financial performance and cash flows for the year then ended in accordance with Thai Financial Reporting Standards.

Saifon Inkaew

Certified Public Accountant (Thailand) No. 4434

**EY Office Limited** 

Bangkok: 16 February 2015

# Thai Agro Energy Public Company Limited Statement of financial position

# As at 31 December 2014

			(Unit: Baht)
	<u>Note</u>	<u>2014</u>	<u>2013</u>
Assets			
Current assets			
Cash and cash equivalents	7	22,261,356	11,989,722
Current investments - open fund		434,894	-
Trade and other receivables	8	194,996,134	176,814,879
Inventories	9	113,466,673	84,149,758
Advance payments for purchase of goods	10	629,235,285	366,882,970
Other current assets		36,227,423	17,145,986
Total current assets		996,621,765	656,983,315
Non-current assets			
Property, plant and equipment	11	2,372,891,730	2,206,746,622
Intangible assets	12	2,037,142	1,959,841
Deferred tax assets	21	12,955,408	21,906,256
Other non-current assets		498,740	457,400
Total non-current assets		2,388,383,020	2,231,070,119
Total assets		3,385,004,785	2,888,053,434

# Thai Agro Energy Public Company Limited Statement of financial position (continued)

# As at 31 December 2014

			(Unit: Baht)
	<u>Note</u>	<u>2014</u>	<u>2013</u>
Liabilities and shareholders' equity			
Current liabilities			
Short-term loans from financial institutions	13	963,146,161	744,682,908
Trade and other payables	14	133,986,809	187,265,407
Current portion of liabilities under financial lease agreements	15	915,810	-
Current portion of long-term loan	16	180,000,000	180,000,000
Provision for short-term employee benefits	17	2,540,748	3,111,397
Other current liabilities		12,171,108	12,334,124
Total current liabilities		1,292,760,636	1,127,393,836
Non-current liabilities			
Liabilities under financial lease agreements - net of current portion	15	4,326,054	-
Long-term loan - net of current portion	16	477,757,191	657,757,191
Provision for long-term employee benefits	17	989,730	1,833,836
Total non-current liabilities		483,072,975	659,591,027
Total liabilities		1,775,833,611	1,786,984,863
Shareholders' equity			
Share capital	18		
Registered			
1,000,000,000 ordinary shares of Baht 1 each		1,000,000,000	1,000,000,000
Issued and fully paid up			
1,000,000,000 ordinary shares of Baht 1 each			
(2013: 800,000,000 ordinary shares of Baht 1 each)		1,000,000,000	800,000,000
Share premium		188,795,985	-
Capital reserve for share-based payment transactions		556,451	556,451
Retained earnings			
Appropriated - statutory reserve	19	100,000,000	100,000,000
Unappropriated		319,818,738	200,512,120
Total shareholders' equity		1,609,171,174	1,101,068,571
Total liabilities and shareholders' equity		3,385,004,785	2,888,053,434

# Thai Agro Energy Public Company Limited

# Statement of comprehensive income

# For the year ended 31 December 2014

			(Unit: Baht)
	<u>Note</u>	<u>2014</u>	<u>2013</u>
Profit or loss:			
Revenues			
Sales		2,496,279,049	1,659,052,294
Other income		4,146,564	697,977
Total revenues		2,500,425,613	1,659,750,271
Expenses	20		
Cost of sales		2,165,523,691	1,390,599,079
Selling expenses		7,376,690	10,278,505
Administrative expenses		42,008,812	79,596,845
Total expenses		2,214,909,193	1,480,474,429
Profit before finance cost and income tax		285,516,420	179,275,842
Finance cost		(57,258,954)	(65,633,836)
Profit before income tax		228,257,466	113,642,006
Income tax revenue (expenses)	21	(8,950,848)	4,036,451
Profit for the year		219,306,618	117,678,457
Other comprehensive income:			
Other comprehensive income for the year			
Total comprehensive income for the year		219,306,618	117,678,457
Earnings per share	23		
Basic earnings per share			
Profit for the year		0.24	0.15

# Thai Agro Energy Public Company Limited

# Statement of cash flows

# For the year ended 31 December 2014

		(Unit: Baht)	
	<u>2014</u>	<u>2013</u>	
Cash flows from operating activities			
Profit before tax	228,257,466	113,642,006	
Adjustments to reconcile profit before tax to			
net cash provided by (paid from) operating activities:			
Depreciation and amortisation	105,821,621	99,331,202	
Gain on sales of property and equipment	(677,238)	-	
Gain on sales of current investments	(434,705)	-	
Unrealised gain on current investment	(189)	-	
Reversal of reduction of inventories to net realisable value	-	(9,702,516)	
Provision for long-term employee benefits	867,405	981,596	
Interest income	(263,488)	(189,673)	
Interest expenses	57,086,321	58,643,188	
Profit from operating activities before changes in			
operating assets and liabilities	390,657,193	262,705,803	
Operating assets (increase) decrease			
Trade and other receivables	(13,307,561)	(80,047,953)	
Inventories	(29,316,915)	2,845,387	
Advance payment for purchase of goods	(262,352,315)	(320,246,138)	
Other current assets	(19,084,453)	(11,965,513)	
Other non-current assets	(41,340)	-	
Operating liabilities increase (decrease)			
Trade and other payables	62,229,548	(24,185,210)	
Other current liabilities	2,631,395	653,818	
Provision for long-term employee benefits	(2,282,160)	(1,059,020)	
Cash from (used in) operating activities	129,133,392	(171,298,826)	
Cash received from interest income	264,608	188,910	
Cash paid for interest expenses	(59,791,011)	(50,340,898)	
Net cash from (used in) operating activities	69,606,989	(221,450,814)	

# Thai Agro Energy Public Company Limited

Statement of cash flows (continued)

For the year ended 31 December 2014

		(Unit: Baht)
	<u>2014</u>	<u>2013</u>
Cash flows from investing activities		
Acquisitions of property, plant and equipment	(316,391,894)	(104,499,545)
Acquisitions of current investments	(601,000,000)	-
Acquisitions of intangible assets	(909,589)	(257,800)
Proceeds from sales of property and equipment	2,134,353	-
Proceeds from sales of current investments	601,000,000	-
Cash receipt from government grants	8,615,394	12,338,181
Net cash used in investing activities	(306,551,736)	(92,419,164)
Cash flows from financing activities		
Increase in short-term loans from financial institution	218,463,253	524,213,538
Cash received from additional ordinary shares	388,795,985	-
Repayment of long-term loan	(180,000,000)	(180,000,000)
Cash paid for liabilities under financial lease agreements	(42,857)	-
Cash paid for dividend	(180,000,000)	(24,000,000)
Net cash from financing activities	247,216,381	320,213,538
Net increase in cash and cash equivalents	10,271,634	6,343,560
Cash and cash equivalents at beginning of year	11,989,722	5,646,162
Cash and cash equivalents at end of year (Note 7)	22,261,356	11,989,722
Supplemental cash flows information		
Non-cash related transaction from investing activities		
Accrued receipt from government grants	(4,871,798)	-
Decrease in accounts payables from purchases of equipment		
and intangible assets	(35,508,146)	(44,725,758)
Acquisitions of equipment under financial lease agreements	5,195,000	-
Non-cash related transaction from financing activities		
Increase (decrease) in dividend payable	(80,000,000)	80,000,000

Thai Agro Energy Public Company Limited Statement of changes in shareholders' equity For the year ended 31 December 2014

(Unit: Baht)

				Capital reserve	Retained	earnings	
		Issued and		for share-based	Appropriated -		
		fully paid up		payment	statutory		
	Note	share capital	Share premium	transactions	reserve	Unappropriated	Total
Balance as at 1 January 2013		800,000,000	-	556,451	65,100,000	221,733,663	1,087,390,114
Profit for the year		-	-	-	-	117,678,457	117,678,457
Other comprehensive income for the year							-
Total comprehensive income for the year		-	-	-	-	117,678,457	117,678,457
Dividend paid	26	-	-	-	-	(104,000,000)	(104,000,000)
Unappropriated retained earnings							
transferred to statutory reserve	19				34,900,000	(34,900,000)	
Balance as at 31 December 2013		800,000,000	-	556,451	100,000,000	200,512,120	1,101,068,571
Balance as at 1 January 2014		800,000,000	-	556,451	100,000,000	200,512,120	1,101,068,571
Profit for the year		-	-	-	-	219,306,618	219,306,618
Other comprehensive income for the year							
Total comprehensive income for the year		-	-	-	-	219,306,618	219,306,618
Share capital issued	18	200,000,000	188,795,985	-	-	-	388,795,985
Dividend paid	26					(100,000,000)	(100,000,000)
Balance as at 31 December 2014		1,000,000,000	188,795,985	556,451	100,000,000	319,818,738	1,609,171,174

Thai Agro Energy Public Company Limited Notes to financial statements For the year ended 31 December 2014

#### 1. General information

Thai Agro Energy Public Company Limited ("the Company") was incorporated as a limited company and domiciled in Thailand and was transformed to be a public limited company under Thai laws on 18 October 2007. Its parent company is Lanna Resources Public Co., Ltd., which is a public limited company incorporated in Thailand. The Company operates in Thailand and is principally engaged in production and distribution of ethanol for fuel. The registered office of the Company is at 888/114, Ploenchit Road, Lumpini, Pathumwan, Bangkok.

## 2. Basis of preparation

The financial statements have been prepared in accordance with Thai Financial Reporting Standards enunciated under the Accounting Professions Act B.E. 2547 and its presentation has been made in compliance with the stipulations of the Notification of the Department of Business Development dated 28 September 2011, issued under the Accounting Act B.E. 2543.

The financial statements in Thai language are the official statutory financial statements of the Company. The financial statements in English language have been translated from the Thai language financial statements.

The financial statements have been prepared on a historical cost basis except where otherwise disclosed in the accounting policies.

# 3. New financial reporting standards

Below is a summary of financial reporting standards that became effective in the current accounting year and those that will become effective in the future.

# (a) Financial reporting standards that became effective in the current accounting year

Conceptual Framework for Financial Reporting (revised 2014)

Accounting Standards:

TAS 1 (revised 2012) Presentation of Financial Statements

TAS 7 (revised 2012) Statement of Cash Flows

TAS 12 (revised 2012) Income Taxes

TAS 17 (revised 2012) Leases
TAS 18 (revised 2012) Revenue

TAS 19 (revised 2012) Employee Benefits

TAS 21 (revised 2012)	The Effects of Changes in Foreign Exchange Rates
TAS 24 (revised 2012)	Related Party Disclosures
TAS 28 (revised 2012)	Investments in Associates
TAS 31 (revised 2012)	Interests in Joint Ventures
TAS 34 (revised 2012)	Interim Financial Reporting
TAS 36 (revised 2012)	Impairment of Assets
TAS 38 (revised 2012)	Intangible Assets
Financial Reporting Standa	rds:
TFRS 2 (revised 2012)	Share-based Payment
TFRS 3 (revised 2012)	Business Combinations
TFRS 5 (revised 2012)	Non-current Assets Held for Sale and Discontinued
	Operations
TFRS 8 (revised 2012)	Operating Segments
Accounting Standard Interp	retations:
TSIC 15	Operating Leases – Incentives
TSIC 27	Evaluating the Substance of Transactions Involving the
	Legal Form of a Lease
TSIC 29	Service Concession Arrangements: Disclosures
TSIC 32	Intangible Assets – Web Site Costs
Financial Reporting Standa	rd Interpretations:
TFRIC 1	Changes in Existing Decommissioning, Restoration and
	Similar Liabilities
TFRIC 4	Determining whether an Arrangement contains a Lease
TFRIC 5	Rights to Interests arising from Decommissioning,
	Restoration and Environmental Rehabilitation Funds
TFRIC 7	Applying the Restatement Approach under TAS 29
	Financial Reporting in Hyperinflationary Economies
TFRIC 10	Interim Financial Reporting and Impairment
TFRIC 12	Service Concession Arrangements
TFRIC 13	Customer Loyalty Programmes
TFRIC 17	Distributions of Non-cash Assets to Owners

Transfers of Assets from Customers

Accounting Treatment Guidance for Stock Dividend

TFRIC 18

These financial reporting standards were amended primarily to align their content with the corresponding International Financial Reporting Standards. Most of the changes were directed towards revision of wording and terminology, and provision of interpretations and accounting guidance to users of the accounting standards. These financial reporting standards do not have any significant impact on the financial statements.

# (b) Financial reporting standards that will become effective in the future

The Federation of Accounting Professions has issued a number of revised and new financial reporting standards that become effective for fiscal years beginning on or after 1 January 2015. These financial reporting standards were aimed at alignment with the corresponding International Financial Reporting Standards, with most of the changes directed towards revision of wording and terminology, and provision of interpretations and accounting guidance to users of accounting standards. The management of the Company believes they will not have any significant impact on the financial statements in the year in which they are adopted. However, some of these financial reporting standards involve changes to key principles, as discussed below:

# TAS 19 (revised 2014) Employee Benefits

This revised standard requires that the entity recognise actuarial gains and losses immediately in other comprehensive income while the existing standard allows the entity to recognise such gains and losses immediately in profit or loss, or in other comprehensive income, or to recognise them gradually in profit or loss.

At present, the Company immediately recognise actuarial gains and losses in profit or loss in the period in which they occur. The assessment of the management of the Company is that when the revised standard is applied in 2015 and the method of recognising those gains and losses is changed to immediately recognise them in other comprehensive income, there will be no impact to provision for long-term employee benefit liabilities and retained earnings in the financial statements.

### **TFRS 13 Fair Value Measurement**

This standard provides guidance on how to measure fair value and stipulates disclosures related to fair value measurements. Entities are to apply the guidance under this standard if they are required by other financial reporting standards to measure their assets or liabilities at fair value. The effect of the change from the adoption of this standard is to be recognised prospectively.

Based on the preliminary analysis, the management of the Company believes that this standard will not have any significant impact on the Company financial statements.

# 4. Significant accounting policies

# 4.1 Revenue recognition

Sales of goods

Sales of goods are recognised when the significant risks and rewards of ownership of the goods have passed to the buyer. Sales are the invoiced value, excluding value added tax, of goods supplied after deducting discounts and allowances.

Interest income

Interest income is recognised on an accrual basis based on the effective interest rate.

## 4.2 Cash and cash equivalents

Cash and cash equivalents consist of cash in hand and at banks, and all highly liquid investments with an original maturity of three months or less and not subject to withdrawal restrictions.

## 4.3 Investments in trading securities

Investments in securities held for trading are stated at fair value. Changes in the fair value of these securities, which is determined from their net asset value, are recorded in profit or loss.

On disposal of an investment, the difference between net disposal proceeds and the carrying amount of the investment is recognised in profit or loss.

#### 4.4 Trade receivables

Trade receivables are stated at the net realisable value. Allowance for doubtful accounts is provided for the estimated losses that may be incurred in collection of receivables. The allowance is generally based on collection experiences and analysis of debt aging.

## 4.5 Inventories

Finished goods, work in process and raw materials are valued at the lower of cost (under the weighted average method) and net realisable value. Cost of finished goods and work in process includes cost of material, labour and overheads. Net realisable value is selling price in normal course of business less other costs incurred to sell the goods.

Supplies are valued at the lower of cost (under the weighted average method) and net realisable value and are charged to production costs whenever consumed.

# 4.6 Property, plant and equipment and depreciation

Land is stated at cost. Buildings and equipment are stated at cost less accumulated depreciation and allowance for loss on impairment of assets (if any).

Depreciation of buildings and equipment is calculated by reference to their costs on the straight-line basis over the following estimated useful lives:

Buildings and amenities 5 - 30 years

Machinery and equipment 5 - 30 years

Office equipment 3, 5, 15 years

Motor vehicles 5 years

No depreciation is provided for land, land improvement, and assets under construction and installation.

Depreciation is included in determining income.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss arising on disposal of an asset is included in profit or loss when the asset is derecognised.

## 4.7 Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of an asset that necessarily takes a substantial period of time to get ready for its intended use or sale are capitalised as part of the cost of the respective assets. All other borrowing costs are expensed in the period they are incurred. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

# 4.8 Government grants related to assets

Government grants are recognised when there is reasonable assurance that the grants will be received and all attached conditions will be complied with. Government grants related to assets are presented as a deduction to the value of the related assets and are recognised in profit or loss over the useful life of the assets as a reduced depreciation expense.

# 4.9 Intangible assets

Intangible assets are carried at cost less accumulated amortisation and accumulated impairment losses (if any).

Intangible assets with finite lives are amortised on a systematic basis over the economic useful life and tested for impairment whenever there is an indication that the intangible asset may be impaired. The amortisation period and the amortisation method for such intangible assets are reviewed at least at each financial year end. The amortisation expense is charged to profit or loss.

A summary of the intangible assets with finite useful lives is as follows:

<u>Useful lives</u>

Computer software

3, 5, 10 years

## 4.10 Related party transactions

Related parties comprise enterprises and individuals that control, or are controlled by, the Company, whether directly or indirectly, or which are under common control with the Company.

They also include associated companies and individuals which directly or indirectly own a voting interest in the Company that gives them significant influence over the Company, key management personnel, directors, and officers with authority in the planning and direction of the Company's operations.

## 4.11 Long-term leases

Leases of property, plant or equipment which transfer substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalised at the lower of the fair value of the leased assets and the present value of the minimum lease payments. The outstanding rental obligations, net of finance charges, are included in long-term payables, while the interest element is charged to profit or loss over the lease period. The assets acquired under finance leases is depreciated over the shorter of the useful life of the asset and the lease period.

Leases of property, plant or equipment which do not transfer substantially all the risks and rewards of ownership are classified as operating leases. Operating lease payments are recognised as an expense in profit or loss on a straight line basis over the lease term.

# 4.12 Foreign currencies

The financial statements are presented in Baht, which is also the Company's functional currency.

Transactions in foreign currencies are translated into Baht at the exchange rates ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated into Baht at the exchange rate ruling at the end of reporting period.

Gains and losses on exchange are included in determining income.

### 4.13 Impairment of assets

At the end of each reporting period, the Company performs impairment reviews in respect of the property, plant and equipment and other intangible assets whenever events or changes in circumstances indicate that an asset may be impaired. An impairment loss is recognised when the recoverable amount of an asset, which is the higher of the asset's fair value less costs to sell and its value in use, is less than the carrying amount. In determining value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. In determining fair value less costs to sell, an appropriate valuation model is used. These calculations are corroborated by a valuation model that, based on information available, reflects the amount that the Company could obtain from the disposal of the asset in an arm's length transaction between knowledgeable, willing parties, after deducting the costs of disposal.

An impairment loss is recognised in profit or loss.

## 4.14 Employee benefits

Short-term employee benefits

Salaries, wages, bonuses and contributions to the social security fund are recognised as expenses when incurred.

Post-employment benefits

## **Defined contribution plans**

The Company and its employees have jointly established a provident fund. The fund is monthly contributed by employees and by the Company. The fund's assets are held in a separate trust fund and the Company's contributions are recognised as expenses when incurred.

## Defined benefit plans

The Company has obligations in respect of the severance payments it must make to employees upon retirement under labor law. The Company treats these severance payment obligations as defined benefit plans.

The obligations under the defined benefit plan are determined by a professionally qualified independent actuary based on actuarial techniques, using the projected unit credit method.

Actuarial gains and losses arising from post-employment benefits are recognised immediately in profit or loss.

#### 4.15 Provisions

Provisions are recognised when the Company has a present obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

#### 4.16 Income tax

Income tax expense represents the sum of corporate income tax currently payable and deferred tax.

## **Current tax**

The Company provides income tax in the accounts at the amount expected to be paid to the taxation authorities, based on taxable profits determined in accordance with tax legalisation. Corporate income tax rate is 20 percent for non-promoted operations and exemption from corporate income tax for promoted operations.

### **Deferred tax**

Deferred income tax is provided on temporary differences between the tax bases of assets and liabilities and their carrying amounts at the end of each reporting period, using the tax rates enacted at the end of the reporting period.

The Company recognises deferred tax liabilities for all taxable temporary differences while they recognise deferred tax assets for all deductible temporary differences and tax losses carried forward to the extent that it is probable that future taxable profit will be available against which such deductible temporary differences and tax losses carried forward can be utilised.

At each reporting date, the Company reviews and reduces the carrying amount of deferred tax assets to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilised.

The Company records deferred tax directly to shareholders' equity if the tax relates to items that are recorded directly to shareholders' equity.

## 5. Significant accounting judgements and estimates

The preparation of financial statements in conformity with financial reporting standards at times requires management to make subjective judgements and estimates regarding matters that are inherently uncertain. These judgements and estimates affect reported amounts and disclosures; and actual results could differ from these estimates. Significant judgements and estimates are as follows:

#### Leases

In determining whether a lease is to be classified as an operating lease or finance lease, the management is required to use judgement regarding whether significant risk and rewards of ownership of the leased asset has been transferred, taking into consideration terms and conditions of the arrangement.

### Allowance for doubtful accounts

In determining an allowance for doubtful accounts, the management needs to make judgement and estimates based upon, among other things, past collection history, aging profile of outstanding debts and the prevailing economic condition.

### Allowance for diminution in inventory value

In determining an allowance for diminution in inventory value, the management needs to make judgement in estimating loss from slow moving and deteriorated inventories including the effect from declining in net realisable value of inventories.

## Property, plant and equipment and depreciation

In determining depreciation of plant and equipment, the management is required to make estimates of the useful lives and residual values of the plant and equipment and to review estimated useful lives and residual values when there are any changes.

In addition, the management is required to review property, plant and equipment for impairment on a periodical basis and record impairment losses in the period when it is determined that their recoverable amount is lower than the carrying amount. This requires judgements regarding forecast of future revenues and expenses relating to the assets subject to the review.

## **Deferred tax assets**

Deferred tax assets are recognised for deductible temporary differences and unused tax losses to the extent that it is probable that taxable profit will be available against which the temporary differences and losses can be utilised. Significant management judgement is required to determine the amount of deferred tax assets that can be recognised, based upon the likely timing and level of estimate future taxable profits.

### Post-employment benefits under defined benefit plans

The obligation under the defined benefit plan is determined based on actuarial techniques. Such determination is made based on various assumptions, including discount rate, future salary increase rate, mortality rate and staff turnover rate.

### Litigation

The Company has contingent liabilities as a result of litigation. The Company's management has used judgement to assess of the results of the litigation and believes that no loss will result. Therefore, no contingent liabilities are recorded as at the end of reporting period.

### 6. Related party transactions

During the years, the Company had significant business transactions with related parties. Such transactions, which are summarised below, arose in the ordinary course of business and were concluded on agreed upon between the Company and those related parties.

(Unit: Baht)

2014 2013 Transfer Pricing Policy

Transactions with parent company

Dividend paid 51,000,000 78,784,905 Declared rate

As at 31 December 2014 and 2013, the balances of the accounts between the Company and related companies are as follows:

		(Unit: Baht)
	<u>2014</u>	<u>2013</u>
Other payable - related party (Note 14)		
Lanna Resources Public Co., Ltd.		60,603,773
Total other payable - related party		60,603,773

# Directors and management's benefits

During the years ended 31 December 2014 and 2013, the Company had employee benefit expenses payable to its directors and management as below.

		(Unit: Baht)
	<u>2014</u>	<u>2013</u>
Short-term employee benefits	21,737,441	17,937,168
Post-employment benefits	423,717	488,568
Total	22,161,158	18,425,736

# 7. Cash and cash equivalents

		(Unit: Baht)
	<u>2014</u>	<u>2013</u>
Cash	42,094	37,130
Bank deposits	22,219,262	11,952,592
Total	22,261,356	11,989,722

As at 31 December 2014, bank deposits in savings account carried interests between 0.37 and 0.50 percent per annum (2013: between 0.25 and 0.50 percent per annum).

## 8. Trade and other receivables

The outstanding balances of trade and other receivables as at 31 December 2014 amounting to Baht 184 million (2013: Baht 177 million) are undue trade accounts receivable. The remaining balances are other receivables.

### 9. Inventories

(Unit: Baht)

			Reduce	cost to			
	Co	Cost		net realisable value		Inventories - net	
	<u>2014</u>	2013	2014	<u>2013</u>	<u>2014</u>	2013	
Finished goods - Ethanol	10,044,359	20,807,409	-	-	10,044,359	20,807,409	
Work in process	12,761,491	10,182,901	-	-	12,761,491	10,182,901	
Raw materials - Molasses	81,944,123	43,396,989	-	-	81,944,123	43,396,989	
Supplies	8,716,700	9,762,459	-		8,716,700	9,762,459	
Total	113,466,673	84,149,758			113,466,673	84,149,758	

105.043.333

## 10. Advance payments for purchase of goods

During the years, the Company had significant business transactions with local companies in respect of purchases of molasses and cassava chips under the purchase of molasses agreement and cassava chips agreement. To comply with the conditions in the agreements, as at 31 December 2014, the Company had paid advance payments for purchase of molasses and cassava chips amounting to Baht 629.2 million (2013: Baht 366.9 million).

### 11. Property, plant and equipment

								(Unit: Baht)
							Assets under	
							construction	
		Land	Building and	Machineries	Office		and	
	Land	improvement	amenities	and equipment	equipment	Motor vehicles	installation	Total
Cost								
1 January 2013	150,084,251	56,785,878	255,778,842	1,653,665,930	15,376,156	25,591,241	354,465,491	2,511,747,789
Additions	6,655,614	-	184,081	6,940,001	1,411,925	67,700	133,911,982	149,171,303
Transfers in (out)	-	-	-	12,702,638	-	-	(12,702,638)	-
Receipts of government grants				(6,338,181)	-		(6,000,000)	(12,338,181)
31 December 2013	156,739,865	56,785,878	255,962,923	1,666,970,388	16,788,081	25,658,941	469,674,835	2,648,580,911
Additions	3,701,199	-	219,800	4,498,845	1,054,880	5,344,695	271,313,329	286,132,748
Disposal	(1,445,800)	-	-	-	-	(665,477)	-	(2,111,277)
Transfers in (out)	-	-	16,606	150,329,506	1,126,500	-	(151,472,612)	-
Receipts of government grants				(13,487,192)	-			(13,487,192)
31 December 2014	158,995,264	56,785,878	256,199,329	1,808,311,547	18,969,461	30,338,159	589,515,552	2,919,115,190
Accumulated depreciation								
1 January 2013	-	-	34,269,626	277,936,161	11,153,528	19,926,727	-	343,286,042
Depreciation for the year			10,036,108	84,086,323	1,709,393	2,716,423		98,548,247
31 December 2013	-	-	44,305,734	362,022,484	12,862,921	22,643,150	-	441,834,289
Depreciation for the year	-	-	9,957,302	91,583,859	1,834,625	1,667,547	-	105,043,333
Depreciation on disposal	-	-	-	-	-	(654,162)	-	(654,162)
31 December 2014	-	-	54,263,036	453,606,343	14,697,546	23,656,535	-	546,223,460
Net book value								
31 December 2013	156,739,865	56,785,878	211,657,189	1,304,947,904	3,925,160	3,015,791	469,674,835	2,206,746,622
31 December 2014	158,995,264	56,785,878	201,936,293	1,354,705,204	4,271,915	6,681,624	589,515,552	2,372,891,730
Depreciation for the year								
2013 (Baht 68 million included in a	manufacturing co	st, and the balar	nce in selling exp	enses and adminis	strative expense	es)		98,548,247

As at 31 December 2014, the Company have motor vehicles under financial lease agreement with net book values amounting to Baht 5.0 million (2013: nil).

2014 (Baht 101 million included in manufacturing cost, and the balance in selling expenses and administrative expenses)

The Company has mortgaged part of its land and construction thereon and machinery with net book value as at 31 December 2014 amounting to approximately Baht 1,183.0 million (2013: Baht 1,198.7 million) as collateral for short-term and long-term loans and credit facilities granted by a commercial bank as discussed in Note 13 and 16.

During 2013, the Company received the subsidy of Baht 12.3 million from the subsidy agreement with the Energy Conservation Promotion Fund under "Biogas Technology for Industry Project".

During 2014, the Company received the subsidy of Baht 8.6 million from the subsidy agreement with the Energy Conservation Promotion Fund under "Biogas Technology for Industry Project". In addition, the Company recorded accrued receipt from the subsidy of Baht 4.9 million from the subsidy agreement with the Energy Conservation Promotion Fund under "Biogas Technology for Industry Project". The Company received such subsidy on 7 January 2015. However, the Company is required to comply with the terms under the aforementioned agreements.

As at 31 December 2014, certain machineries and equipment, office equipment and motor vehicles have been fully depreciated but are still in use. The gross carrying amount before deducting accumulated depreciation of those assets amounted to approximately Baht 49.3 million (2013: Baht 40.3 million).

### 12. Intangible assets

The net book value of intangible assets which are computer software as at 31 December 2014 and 2013 is presented below.

	(Unit: Baht)
As at 31 December 2014	
Cost	6,250,904
Less: Accumulated amortisation	(4,213,762)
Net book value	2,037,142
As at 31 December 2013	
Cost	5,395,315
Less: Accumulated amortisation	(3,435,474)
Net book value	1,959,841

A reconciliation of the net book value of intangible assets for the years 2014 and 2013 is presented below.

		(Unit: Baht)
	<u>2014</u>	<u>2013</u>
Net book value at beginning of year	1,959,841	2,430,996
Additions	855,589	311,800
Amortisation for the year	(778,288)	(782,955)
Net book value at end of year	2,037,142	1,959,841

### 13. Short-term loans from financial institutions

(Unit: Baht)

	Intere	st rate		
	(percent p	er annum)		
	<u>2014</u>	<u>2013</u>	<u>2014</u>	<u>2013</u>
Promissory notes	3.60 - 3.90	3.70 - 4.10	831,210,004	604,684,250
Trust receipts	3.52	3.70	131,936,157	139,998,658
Total			963,146,161	744,682,908

Short-term loans from financial institutions is secured by the mortgage of part of the Company's land and construction thereon and machinery as discussed in Note 11.

# 14. Trade and other payables

		(Unit: Baht)
	<u>2014</u>	<u>2013</u>
Trade payables	119,441,573	52,805,751
Other payable - related party	-	60,603,773
Other payables - non related parties	14,545,236	66,620,271
Retention payable		7,235,612
Total trade and other payables	133,986,809	187,265,407

# 15. Liabilities under finance lease agreements

Details of liabilities under finance lease agreements of the Company as at 31 December 2014 are as follows:

	(Unit: Baht)
Liabilities under finance lease agreements	6,678,883
Less: Deferred interest expenses	(1,437,019)
Total	5,241,864
Less: Current portion	(915,810)
Liabilities under finance lease agreements - net of current	
portion	4,326,054

The Company has entered into the finance lease agreements with leasing company for rental of vehicles for use in its operations, whereby it is committed to pay rental on a monthly basis. The term of the agreement is 5 years.

As at 31 December 2014, future minimum lease payments required under the finance lease agreement were as follows:

			(Unit: Baht)
	Less than		
	1 year	1-5 years	Total
Future minimum lease payments	1,456,377	5,222,506	6,678,883
Deferred interest expenses	(540,567)	(896,452)	(1,437,019)
Present value of future minimum lease payments	915,810	4,326,054	5,241,864

### 16. Long-term loan

		(Unit: Baht)
	<u>2014</u>	<u>2013</u>
Long-term loan	657,757,191	837,757,191
Less: Current portion	(180,000,000)	(180,000,000)
Long-term loan - net of current portion	477,757,191	657,757,191

On 6 November 2013, the Company entered into long-term loan agreement with a local bank, obtaining loan facilities of Baht 845 million, for the debt refinance with an another local bank. On 18 December 2013, the Company withdrew the loan for the debt refinance and repaid all of short-term and long-term loans to that local bank totaling Baht 837.8 million. The loan initially carries interest rate at THBFIX reference rate plus 1.75 percent per annum for the first year, and the interest rate increases by 0.05 percent per annum from the second to fifth year. The loan is repayable within 5 years in 10 semi-annually installments of Baht 90 million during the first to ninth year, and remaining balance is repayable in the tenth year. The repayment period is from June 2014 to December 2018. The loan is secured by the mortgage of a part of the Company's land and construction thereon and machinery as discussed in Note 11.

Subsequently, on 7 March 2014, the Company executed a memorandum attached to the long-term loan agreement made with the bank to revise certain conditions and debt service coverage ratios.

149

The loan agreement contains several covenants which, among other things, require the Company to maintain certain financial ratios according to the agreement such as debt to equity and debt service coverage ratios at the rate prescribed in the agreement.

As at 31 December 2014 the Company could maintain certain financial ratios as specified in the memorandum attached to the long-term loan agreement (2013: the Company could not maintain certain financial ratios as specified in the loan agreement, however, the Company had negotiated with the bank, and had obtained a waiver letter for the condition to maintain certain financial ratios for the year ended 31 December 2013 from that bank on 27 December 2013. The Company could maintain all conditions in a waiver letter and the loan agreement).

### 17. Provision for long-term employee benefits

Provision for long-term employee benefits, which represents compensations payable to employees after they retire from the Company as at 31 December 2014 and 2013, was as follows:

		(Unit: Baht)
	<u>2014</u>	<u>2013</u>
Defined benefit obligation at beginning of the year	4,945,233	5,022,657
Current service cost	701,230	1,327,203
Interest cost	166,175	223,696
Benefits paid during the year	(2,282,160)	(1,059,020)
Actuarial gain		(569,303)
Defined benefit obligation at end of the year	3,530,478	4,945,233
Provision for employee benefits		
Current	2,540,748	3,111,397
Non-current	989,730	1,833,836
	3,530,478	4,945,233

Long-term employee benefit expenses recognised in profit or loss consist of the following:

		(Unit: Baht)
	<u>2014</u>	<u>2013</u>
Current service cost	701,230	1,327,203
Interest cost	166,175	223,696
Actuarial gain recognised during the year		(569,303)
Total expenses recognised in profit or loss	867,405	981,596
Line items in profit or loss under which such expenses		
are included		
Cost of sales	634,220	334,734
Selling and administrative expenses	233,185	646,862

Key actuarial assumptions used for the valuation are as follows:

	<u>2014</u>	<u>2013</u>
	(% per annum)	(% per annum)
Discount rate	4.9	4.9
Future salary increase rate	4.7, 6.6	4.7, 6.6
Employee turnover rate	10.0 - 29.0	10.0 - 29.0
(depending on age of employees)		

The amounts of defined benefit obligations and experience adjustments for the current year and the past four years are as follows:

 (Unit: Baht)

 Experience adjustments

 Defined benefit obligation
 on the obligation

 Year 2014
 3,530,478

 Year 2013
 4,945,233
 138,431

 Year 2012
 5,022,657

 Year 2011
 3,543,085

 Year 2010
 2,070,903

## 18. Share capital

- 18.1 On 19 September 2013, the Extraordinary General Meeting of the Company's shareholders passed a resolution to approve the increase in its registered capital from Baht 800 million (800 million shares of Baht 1 each) to Baht 1,000 million (1,000 million shares of Baht 1 each) to support the initial public offering to public and the Company's shareholders. The Company registered the increase of its capital with Ministry of Commerce on 2 October 2013.
- 18.2 During 21 23 May 2014, the Company offered 105 million ordinary shares, with a par value of Baht 1 each, at a price of Baht 2 each through the existing shareholders of Lanna Resources Public Co., Ltd., according to the proportion of their shareholdings in Lanna Resources Public Co., Ltd.
- 18.3 During 28 30 May 2014, the Company offered 95 million ordinary shares, with a par value of Baht 1 each, at a price of Baht 2 each through the Initial Public Offering. The Company registered the increase of its issued and paid-up share capital from Baht 800 million (800 million ordinary shares with a per value of Baht 1 each) to Baht 1,000 million (1,000 million ordinary shares with a par value of Baht 1 each) with the Ministry of Commerce on 2 June 2014, and the Stock Exchange of Thailand approved the 1,000 million ordinary shares with a par value of Baht 1 each as listed securities for trading, effective from 5 June 2014. The Company incurred expenses relating to the share offering totaling Baht 11.2 million, which were presented as a deduction from the share premium.

### 19. Statutory reserve

Pursuant to Section 116 of the Public Limited Companies Act B.E. 2535, the Company is required to set aside to a statutory reserve at least 5 percent of its net profit after deducting accumulated deficit brought forward (if any), until the reserve reaches 10 percent of its registered share capital. The statutory reserve is not available for dividend distribution.

During the year 2013, the Company set aside an additional statutory reserve by amount of Baht 34.9 million or a total sum of Baht 100 million. Presently, the Company has fully set aside a statutory reserve.

# 20. Expenses by nature

Significant expenses classified by nature are as follows:

		(Unit: Baht)
	<u>2014</u>	<u>2013</u>
Raw materials and consumables used	1,900,821,959	1,223,191,606
Changes in inventories of finished goods and work in process	8,184,460	(2,309,235)
Depreciation and amortisation	105,821,621	99,331,202
Salaries, wages and other employee benefits	70,216,209	56,664,600
Electricity and fuel expenses	65,858,361	47,592,785
Repair and maintenance expenses	14,297,198	11,147,955

## 21. Income tax

Income tax expenses for the years ended 31 December 2014 and 2013 are made up as follows:

	(Unit: Baht)
<u>2014</u>	<u>2013</u>
-	-
8,950,848	(10,897,999)
	6,861,548
8,950,848	(4,036,451)
	- 8,950,848 -

The reconciliation between accounting profit and income tax expenses is shown below.

<u> 2014</u>	<u>2013</u>
257,466	113,642,006
20%	20%
651,493	22,728,401
533,986) 197,067	(33,939,426) 10,556

(Unit: Baht)

Accounting profit before tax	228,257,466	113,642,006
Applicable tax rate	20%	20%
Accounting profit before tax multiplied by		
income tax rate	45,651,493	22,728,401
Effects of:		
Promotional privileges (Note 22)	(27,533,986)	(33,939,426)
Non-deductible expenses	197,067	10,556
Recognition of tax loss carried forward of the previous		
year	(8,634,914)	-
Additional expense deductions allowed	(13,781)	(2,007)
Others	(715,031)	304,477
Total	(36,700,645)	(33,626,400)
Deferred tax assets not recognised		6,861,548
Income tax (revenue) expenses reported in the statement		
of comprehensive income	8,950,848	(4,036,451)

The components of deferred tax assets and deferred tax liabilities are as follows:

(Unit: Baht)

	Statements of financial position	
	<u>2014</u>	<u>2013</u>
Deferred tax assets		
Government grants	5,985,821	4,479,061
Financial leases	37,038	-
Provision for short-term employee benefits	217,982	232,187
Provision for long-term employee benefits	197,946	366,767
Tax loss carried forward	9,937,939	20,249,559
Total	16,376,726	25,327,574
Deferred tax liabilities		
Accumulated depreciation - Machineries	3,421,318	3,421,318
Total	3,421,318	3,421,318

As at 31 December 2013, the Company has unused tax losses totaling Baht 34 million. No deferred tax assets have been recognised on these amounts as the Company has received the promotional privileges and there are uncertain economic future which affect the utilisation of unused tax losses.

## 22. Promotional privileges

The Company has received the promotional privileges under the Investment Promotion Act B.E. 2520 as approved by the Board of Investment as follows:

	Certificate No.	1760(2)/2546	2078(9)/2551
	Date	26 December 2003	19 November 2008
1.	Promotional privileges for	Manufacture of	Manufacture of
		alcohol	ethanol (99.5%)
2.	Significant privileges		
	2.1 Exemption from corporate income tax on income derived from the	8 years	8 years
	promoted operations (commencing from the date of earning	(expired)	(will expire on
	operating income) and exemption from income tax on dividend		1 April 2020)
	paid from the income of the promoted operations throughout the		
	period in which the corporate income tax is exempted.		
	2.2 Allowance to carry-forward the annual loss from promoted	5 years	5 years
	operations incurred during the corporate income tax exemption		
	period to offset with net income incurred thereafter (after		
	exemption period in 2.1).		
	2.3 Exemption from import duty on raw and essential materials or	1 year	1 year
	products used for manufacture for export commencing from the		
	first import date.		
3.	Date of first earning operating income	31 January 2005	2 April 2012

As a promoted company, the Company has to comply with certain conditions and restrictions provided for in the promotional certificates.

The Company's operating revenues for the years ended 31 December 2014 and 2013 were domestic sales, which were divided between promoted and non-promoted operations are summerised below:

		(Unit: Baht)
	<u>2014</u>	<u>2013</u>
Revenues from sales		
Promoted operations	1,514,152,500	1,593,731,798
Non-promoted operations	982,126,549	65,320,496
Total	2,496,279,049	1,659,052,294

### 23. Earnings per share

Basic earnings per share is calculated by dividing profit for the year (excluding other comprehensive income) by the weighted average number of ordinary shares in issue during the year.

	<u>2014</u>	<u>2013</u>
Profit for the year (Baht)	219,306,618	117,678,457
Weighted average number of ordinary shares (shares)	916,712,329	800,000,000
Earnings per share (Baht)	0.24	0.15

### 24. Segment information

Operating segment information is reported in a manner consistent with the internal reports that are regularly reviewed by the chief operating decision maker in order to make decisions about the allocation of resources to the segment and assess its performance.

The one main reportable operating segment of the Company is production and distribution of ethanol-for-fuel and the single geographical area of their operations is Thailand. Segment performance is measured based on operating profit or loss, on a basis consistent with that used to measure operating profit or loss in the financial statements. As a result, all of the revenues, operating profits and assets as reflected in these financial statements pertain exclusively to the aforementioned reportable operating segment and geographical area.

For the year 2014, the Company has revenue from 3 major customers in amount of Baht 888 million, Baht 791 million and Baht 498 million (2013: revenue from 4 major customers in amount of Baht 623 million, Baht 375 million, Baht 296 million and Baht 274 million).

#### 25. Provident fund

The Company and its employees have jointly established a provident fund in accordance with the Provident Fund Act B.E. 2530. Both employees and the Company contribute to the fund monthly at the rate of 5 percent of basic salary. The fund, which is managed by Bank of Ayudhaya Public Company Limited, will be paid to employees upon termination in accordance with the fund rules. During the year 2014, the Company contributed Baht 2.2 million (2013: Baht 2.0 million) to the fund.

# 26. Dividend paid

		Total	Dividend	
Dividends	Approved by	Dividends	per share	Paid on
		(Baht)	(Baht)	
<u>2014</u>				
Interim dividends in respect	Board of Directors'	100,000,000	0.10	17 October 2014
of operation income from	meeting on			
BOI promoted operation	18 September 2014			
for the period from 1				
January 2014 to 30 June				
2014				_
Total		100,000,000	0.10	
2013				•
Final dividends in respect of	Annual General	24,000,000	0.03	20 May 2013
operation income from BOI	Meeting of the			
promoted operation of	shareholders			
2012	on 23 April 2013			
Interim dividends in respect	Board of Directors'	80,000,000	0.10	17 January 2014
of operation income from	meeting on			
BOI promoted operation	19 December 2013			
for the period from 1				
January 2013 to 30 June				
2013				_
Total		104,000,000	0.13	_

# 27. Commitment and contingent liabilities

# 27.1 Capital commitments

As at 31 December 2014, the Company had capital commitments of approximately Baht 4.8 million, relating to the construction of Biogas systems and the improvement and acquisitions of machinery and equipment (2013: the construction of Biogas systems and the second ethanol production plant and the acquisitions of machinery and equipment of approximately Baht 176.3 million).

### 27.2 Operating lease commitments

The Company has entered into several lease agreements in respect of the lease of office building space and other services. The terms of the agreements are generally between 1 and 5 years.

Future minimum lease and other service payments required under these operating lease and service contracts were as follows:

(Unit: Million Baht)

	As at 31 D	As at 31 December		
	<u>2014</u>	<u>2013</u>		
Payable:				
in up to 1 year	3.3	3.1		
in over 1 and up to 5 years	4.5	-		

### 27.3 Long-term service and purchase commitments

- a) The Company entered into a power supply agreement with the Provincial Electricity Authority for a period of one year, commencing 21 December 2010 to 20 December 2011, and being automatically renewed for every one-year period. The Company shall pay power supply at the rate as stipulated in the agreement.
- b) The Company had commitments under the purchase of molasses agreement with 15-year duration under which the price is to be determined every 5 years commencing the first year in 2005. The price for the first three years is that stipulated in the agreement and for the fourth and fifth year, using the average actual market price of the first three years for comparison and the quantity to purchase of molasses are those stipulated in the agreement. In addition, the Company had additional two commitments under the purchase of molasses agreements with 5-years duration under which the price is to be determined before shipment in the next period and the quantity to purchase of molasses are those stipulated in the agreement.
- c) As at 31 December 2014, the Company had commitments under service agreement with regard for the financial consulting of Baht 0.8 million (2013: service agreement with regard for the legal consulting Baht 0.7 million).

## 27.4 Guarantees

As at 31 December 2014, there were outstanding bank guarantee of approximately Baht 5.1 million (2013: Baht 11.1 million) issued by the bank on behalf of the Company to guarantee the license for production and distribution of ethanol-for-fuel from the Excise Department, Biogas Technologic promotion project 2012 (Year 5) of the Energy Policy and Planning Office Ministry of Energy, and to guarantee contracted performance under the license for electricity use to Provincial Electricity Authority.

### 28. Litigation

In September 2011, a company sued the Company for its alleged non-compliance with the cassava chip purchase agreement dated 21 January 2011 and memorandum dated 29 April 2011, claiming a compensation for damage of Baht 186.9 million. On 8 November 2011, the Company submitted the testimony and countersued that company, claiming a compensation for damage of Baht 82.4 million. Subsequently, on 9 October 2014, the Civil Court dismissed the lawsuit filed by that company and ordered it to make payments for purchases of cassava chip that the Company paid in advance of Baht 6.9 million which together with interest expense of 7.5 percent per annum, calculated from 8 November 2014 (the countersue date) until completion of payment. In addition, that company shall pay for charges and partial lawyer fee for the Company. However, on 3 December 2014, the Company lodged an appeal with the Court of Appeal. Presently, the case is under consideration of the Appeal Court. As at 31 December 2014, the Company has not received such payment; therefore, the Company has not recorded in its account.

### 29. Financial instruments

### 29.1 Financial risk management

The Company's financial instruments, as defined under Thai Accounting Standard No.107 "Financial Instruments: Disclosure and Presentations", principally comprise cash and cash equivalents, trade and other receivables, trade and other payables, liabilities under financial lease agreements, short-term and long-term borrowings. The financial risks associated with these financial instruments and how they are managed is described below.

#### Credit risk

The Company is exposed to credit risk primarily with respect to trade receivables. The Company manages the risk by adopting appropriate credit control policies and procedures and therefore does not expect to incur material financial losses. In addition, most of the Company's receivables are the oil companies which have good reputation and financial position. The maximum exposure to credit risk is limited to the carrying amounts of receivables as stated in the statement of financial position.

#### Interest rate risk

The Company's exposure to interest rate risk relates primarily to its cash at banks, liabilities under financial lease agreements and interest-bearing short-term and long-term borrowings. However, since most of the Company's financial assets and liabilities bear floating interest rates or fixed interest rates which are close to the market rate, the interest rate risk is expected to be minimal.

Significant financial assets and liabilities classified by type of interest rate are summarised in the table below, with those financial assets and liabilities that carry fixed interest rates further classified based on the maturity date, or the repricing date if this occurs before the maturity date.

(Unit: Million Baht)

	As at 31 December 2014			
	Floating	Non-interest		Effective
	interest rate	bearing	Total	interest rate
				(% per annum)
Financial assets				
Cash and cash equivalents	18.3	4.0	22.3	0.37 - 0.50
Trade and other receivables		195.0	195.0	-
	18.3	199.0	217.3	
Financial liabilities				_
Short-term loans from financial institutions	963.1	-	963.1	3.52 - 3.90
Trade and other payables	-	134.0	134.0	-
Liabilities under financial lease agreements	5.2	-	5.2	6.88 - 15.30
	968.3	134.0	1,102.3	<del>-</del>
		As at 31 De	cember 2013	(Unit: Million Baht)
	Floating	Non-interest	2011201 2010	Effective

	Floating	Non-interest		Effective
	interest rate	bearing	Total	interest rate
				(% per annum)
Financial assets				
Cash and cash equivalents	9.9	2.1	12.0	0.25 - 0.50
Trade and other receivables		176.8	176.8	<del>-</del>
	9.9	178.9	188.8	
Financial liabilities				
Short-term loans from financial institutions	744.7	-	744.7	3.70 - 4.10
Trade and other payables		187.3	187.3	-
	744.7	187.3	932.0	

As at 31 December 2014, long-term loan from bank of Baht 657.8 million (2013: Baht 837.8 million) carries interest at THBFIX reference rate plus 1.75 percent per annum for the first year, and the interest rate increases by 0.05 percent per annum from the second to fifth year.

## Foreign currency risk

The Company assumes no foreign currency risk from purchase and sale transactions and borrowings since most of the transactions are denominated in Thai Baht.

#### 29.2 Fair values of financial instruments

Since the majority of the Company's financial instruments are short-term in nature and loans bear floating interest rates, their fair value is not expected to be materially different from the amounts presented in the statement of financial position.

A fair value is the amount for which an asset can be exchanged or a liability settled between knowledgeable, willing parties in an arm's length transaction. The fair value is determined by reference to the market price of the financial instrument or by using an appropriate valuation technique, depending on the nature of the instrument.

### 30. Capital management

The primary objective of the Company's capital management is to ensure that it has an appropriate financial structure and preserves the ability to continue its business as a going concern.

The Company manages its capital position with reference to its debt-to-equity ratio. As at 31 December 2014, the Company's debt-to-equity ratio was 1.10:1 (2013: 1.63:1).

### 31. Approval of financial statements

These financial statements were authorised for issue by the authorised directors of the Company on 16 February 2015.

Investors can find more information
on the Company's Form 56-1 shown on the company's
website: www.Thaiagroenergy.com

or The Securities and Exchange Commission's websites: www.sec.or.th



# THAI AGRO ENERGY PUBLIC COMPANY LIMITED

# **Head Office**

888/114 Mahatun Plaza Bldg., 11th Fl., Lumpini, Pathumwan, Bangkok 10330, Thailand Office: 0-2255-4380-4 Fax: 0-2627-3889

# **Factory Danchang**

9 Moo 10 Danchang-Samchuk Rd, Nhongmakamong, Danchang Supanburi 72180 Office: 035-418-351-4 Fax: 035-418-355 WWW.thaiagroenergy.com