

Corporate Social Responsibility (CSR)

Electric transformers manufacturing industry is a downstream industry, which related to electricity because electric transformers are products used in transmitting and distributed electricity. It is a kind of fundamental energy crucial for the well-being of the people and drive the economy as a whole.

Tirathai Company has realized the importance and determined to be part of sustainable electric energy with good member of the society. The company also operate the organization with responsibility to the public, caring to the community, society, and environment. Cooperation with public participants and stakeholders will be company main concerns for continuously and sustainable growth. As a result, the company projects the CSR operation as follows,

1. Good Corporate Governance

The company operates legitimately and strictly follow related regulations with transparency, important information disclosure, and verifiable. The Compliance Policy with Good Corporate Governance, the company is taking into account the benefits of shareholders, employees, community, society, business partners, clients, competitors, creditors, and all stakeholders.

In 2018, the company were evaluated with a very good CG score and was assessed in the Annual General Meeting in 2018 with 91 score.

2. Conducting Business with fairness

The company prioritize the business operation with fairness and abide continuously by treating partners equally and fairly. The company also operate business with integrity, respect Intellectual property, promote political rights, and follows the commitment with stakeholders equally and reasonably.

2.1 Fair Competition

Practice and Guidance

1) Specify all terms and conditions in the agreements and strictly follows the agreement. In case the company cannot follow any conditions, the company will immediately inform customer for further discussions and mutually consider the resolution.

2) Provide necessary information and being good consultants to clients. Offering good, adequate, and updated advices to clients about the products and services.

3) Understand and respond needs and expectations of customer appropriately and timely manner.

4) Deliver good quality products, according to specifications, and reasonable prices.

2.2 Promoting social responsibility with trading partners.

The company do not yet operate the official promotion of social responsibility within the business chain of the stakeholders.

2.3 Respects the property rights

Practice and Guidance

1) Encouraging both executives and employees to use all company's assets and resources efficiently in order to increase the competitive edge and provide good service to customers. Promote copyright products and discourage the Intellectual property infringement.

2) The company aims to protect and preserve the company's Intellectual property from any infringement without permission, also respects other companies' Intellectual properties.

2.4 Involvement with political responsibility

Practice and Guidance

1) The company runs business without bias and have no interests in any political parties or political authorities. Financial supports or resources of the company will not be brought to support any political parties both direct and indirect ways.

2) Motivating and supporting employees to have freedom in political appreciation without domination, threat, force, or participation.

3. Anti-Corruption

According to the resolution of the company executives meeting, 1/2015 on 18th February 2015, The resolution was to announce the policy and intention about not to involve in corruption, as well as appointed subcommittees including Mr. Singha Nikornpun, Mr. Upakrom Thaweepoke, and Mrs. Sunan Santichotinan to act as follows,

1. Draft policies concerning prevention in any corruption involvement.

2. Announce policies concerning prevention in any corruption involvement.

3. Declare intention to participate in the anti-corruption campaign (Collection Action Coalition Against Corruption : CAC)



The company is still unable to apply for the certification within 18 months from the date the company has signed a declaration of intention which the company must submit the certification by June 15, 2017. The company will return to announce the intention again in 2019

4. Respect Human Rights

The company stimulates the significance of respects to the human rights and dignity and treats all the participants, employees, community, and neighboring society with respect in values and do not offend any fundamental rights, which is the foundation in managing and developing human resources. These actions associate with business in increasing its values by linking the value added to the products and productivity.

Practice and Guidance

1) The company promotes the practices of human rights mandate including to the operation of its subsidiaries, joint venture, and business partners.

2) Protect personal information of the company's administered and caring employees, to the public without employees' consent.

3) The company promote and open opportunity to the employees, community, and society to participate in expressing any actions that may violate the human rights.

5. Fair Labour Practices

The company comprehends and places importance on fair labor practice with respect and abide by the laws and principles of ethics without discrimination in employment, no force labor, nor child labors. Employees are able to have freedom in associations along with concerning health and safety in workplace of the employees. Therefore, the improvement of the working environment, providing good quality of life, and opportunity to express personal potentials, as well as equal opportunity in practicing and training, which are the Values of the company continuously operate for long-time period.

1) The company emphasizes on employment without discrimination and bring indifferences in nationality, religion, gender, age, disability, social status, education, or educational institutes in considering and judging for the employment.

2) The company will treat all employees fairly in providing returns, promotion, and capability development as well as moral development in order to promote qualified and moral employees such as, proper potential remuneration, taking care of and in consideration of maternity health and safety as priorities.

3) The company cares for health and sanitation of the employees and related employees by promoting and raising awareness on safety, sanitation, and environment in workplace. According to the Occupation Health and Safety Policy with the target to prevent any incidents of loss and sickness, the plan has put in place for Incident Prevention, promoting participation, risk avoidance, and continuously improvement to create the Safety Culture to all employees and the associated.

3.1 The company defines specific unit to control and push for the operation of safety, sanitation, and environment in workplace. According to the Occupation Health and Safety Policy (Safety, health, and environment at work), there shall be a meeting once a month to provide improvement guidance, mistakes, diagnosis of risk and risk assessment as well as follow up the progress of the operation as planned.

3.2 The company performed the Health Risk Assessment (HRA) in order to observe risk level of health in employees in order to assure that the employees will be taking care of and manage the risk to health for instance, the examining of lead in blood level, volatile matters in urine, lungs conditions, and hearing capability. The results of the HRA report in 2018 found no abnormal employees except the abnormal hearing capacity of 8 employees. The company has set up the measures to retest for verification and the results showed the abnormal hearing capacity did not affect the work and daily life. The company proceeds the preventive action with protection gears for employee to wear at all working time and check the environment condition up to the standards on yearly basis. Besides, the company established the "Hearing preservation campaign" to the affected employees.

3.3 The company has campaigning "Safety Campaign Program" to follow up and examine the safety plan and the environment suitable for working standards and regulations. In 2018, the company has rewarded "Zero Accident" to high risks accidents target to 18 units out of 29 units, in line with the set goals.

4) The company focus on promoting and developing personnel at all levels to have expertise and knowledge along with team spirit, quality, virtue, and customer concern, which will lead to sustainable growth and economic stability. The Company therefore provides a variety of training programs suitable for job positions, experiences, and job responsibilities, such as Executives, Division Managers, Section Heads, and Engineers, operating employers, etc.

As of Dec. 31, 2018, total employees are 504 people, 408 people were trained, representing 80.95 percent. The total budget for training was 937,183 baht by separating into:

- : Executives, Division Managers, Section Heads, being trained 67 people out of 92 people, accounted for 72.83%
- : Engineers and expertise, being trained 49 people out of 54 people, accounted for 90.74%
- : Operating employees, being trained 216 people out of 236 people, accounted for 91.53%

The training session were:

Knowledge 745 hours;
Skill 346 hours;



5) The company has provided various benefits such as group insurance, organ loss insurance from accidents, health insurance, Provident Fund (PVD), employees' transportation, free lunches and dinners for over-time working (OT), and health examination according to the risks involved, etc. In 2018, there were 201 health checks of employees according to risk factors, totaling 36,540 baht, a financial support for employees' parent Cremation 10 employees, totaling 65,000 baht. There are also "Thirathai Family Care Project" by giving 12 items for the employees who gave birth and sickness, totaling 12,066 baht.

6) The company promote and support the education of all levels of employees by regulating the leave for further study by the human resources guidance plan in 2008 in order to enhance employees' knowledge and skills and good quality of life, to take leave for further study or short-term and long-term training session.

7) The company has provided Tirathai savings cooperative in order to encourage employees to save and plan for money spending following the Sufficiency economy by His Majesty King Bhumibol Adulyadej. Tirathai Cooperatives established on 29 March 2006. In 2018, there are a total of 243 members and a total share capital of 33,171,250 baht

8) The company provided the petition for those employees who were treated unfair from the working regulations in 2008 in order to build employees-company relationship and among employees themselves. The petition will be inquired, investigated and considered the resolution which those petitioner and associated will be receiving protection.

The total number of employees in the company and its subsidiaries as of 31th December 2018 and 31th December 2017 are as follows:

Company	Population (People)			
	31th December 2018		31th December 2017	
	Male	Female	Male	Female
1. Tirathai Public Co., Ltd.,	358	144	357	144
2. Thai Fin Co., Ltd.,	53	10	55	8
3. Tirathai E&S Co., Ltd.,	27	7	32	6
4. L.D.S Metal Work Co., Ltd.	268	56	307	66
5. L.D.S-N.D.P (JV)	384	46	391	45
Total	1,090	263	1142	269
Number of employees according to employment type				
Full-time employees	772	220	717	218
Contract employees	318	43	425	51

9) The company provides the employees freedom to express opinions without interruption, and allowing employees to be participate in the welfare committee in order to inform the progress and status of the company regularly. The company also supports discussion and collaboration with the welfare committee to enhance working standard of the employees

6. Responsibility to Consumers

The company set up policies to respond to customer satisfaction. Consumers who directly purchase products and services from the company will obtain quality products up to international standards at fair and reasonable price, The company pays close attention to the needs and expectation of consumers' responses appropriately and timely manner. In addition, the information gatherings will be utilized to improve quality of products and services in order to build trusts from customers.

Practices and Guidance

6.1 Assurances of quality and safety of electric transformers

All transformers are tested for electrical properties before distribution because transformers are peripheral devices in a high voltage power electrical transmission system. If there is any defective caused by the transformer will cause damage to the property, business opportunity including the danger to users and people involved. The company is aware



of such impacts and pay close attention to every process from design, production process, and testing processes of which TRT is capable of testing the transformer in every single process from Routine Test, Type Test, or Special Test in accordance with IEC60076, IEEE C57.12.90 and TIS 384-2543. There is only short-circuit with-stand test will be sent to the KEMA testing laboratory in Netherlands. In addition, the testing laboratory of the company were appointed by Office of Industrial Products as a central laboratory for testing and certifying TIS 384-2543 Industrial Standard including ISO 9001, OHSAS/-TIS 18001, ISO 14001 and ISO/IEC 17025 Electrical Testing Laboratory and Calibration Laboratory. In order to guarantee the quality of design, production and ability to examine electric transformers with international standard before distribution to customers.

6.2 Confidentiality and customer rights

The company has measures to keep customer's information confidentiality and secret, such as technical information, testing results or other confidential information. The company has procedures in collecting and sending the information in consideration of customer's confidentiality as a main concern, and maintain customer's rights. For example, customers can attend in the Witness Test for their own transformers in order to insure the results of the test. In 2018, there were 60 customers attend the Witness test.

6.3 Provision of sufficient and correct information to customers

Tirathai's transformers that passed the testing will be labelling with the Name Plate (Labels). Labels will be placed on the body of transformers to show the details and components of the transformers according to IEC60076-1 and TIS 384-2543 standards including transformer type, standard number, manufacturer name, manufacturer serial number, production year, phase number, electric power, frequency limit, highest current, insulator level, weight, etc. These labels inform customers all the details of each transformers. Besides, the user manual and the training about instructions, cautions, and maintenance in using transformers will be provided to customers.

6.4 Knowledge training to customers

In 2018, the company had provided technical expertise engineers to train knowledge about instructions, cautions, and maintenance in using transformers for both domestic and overseas totaling 9 agencies with total number of 141 participants such as Metropolitan Electricity Authority, Provincial Electricity Authority, Hoya Optics (Thailand) Co., Ltd., Rayong Engineering and Maintenance Company Limited, PTT Global Chemical Public Company Limited, Fuji Furukawa E&C (Thailand) Co., Ltd. and Power Quality Team Co., Ltd. etc.

6.5 Dissemination of knowledge in transformer engineering

The company published an academic journal under the name "Tirathai Journal" with the objective of disseminating knowledge about transformer engineering to those who interested. There is no commercial purpose for this journal and the copyright is not reserved to publish the content. The Editor and staff are all employees of the company. Presently, the publication is in the seventh year and Issue 21, which contains knowledge about electrical engineering, valuable thesis to engineering students' universities, including techniques of usage and maintenance of transformers, as well as At present, it is published in the seventh year, issue 21, with content about the knowledge of electrical engineering. Thesis that has engineering value of students from various universities including the techniques of use and maintenance of transformers as well as transferring the concept of the management philosophy outside the university, which is another corner that the university has never taught. In addition, the company aims that this book is environmentally friendly and health-conscious to the readers. The cover and content in the book are therefore printed on paper produced from agricultural waste materials with a non-toxic process and use ink produced from soybean oil etc. Besides, the company hope the journal will be environmental and care for the reader's health. The cover and the papers made out of agricultural non-toxic leftover; also, the printing ink was made from soybean oil. In 2018, journals were distributed to employees, customers, universities' libraries, Electricity Generating Authority of Thailand Metropolitan Electricity Authority Provincial Electricity Authority University libraries and general public totaling 3,580 copies. There was also the information posted in the website www.tirathai.co.th

6.6 Hearing Comments

In order for customer to be confident in the quality of our transformers, the company had opened for customer visits over the Production Process, Testing Process, as well as to listen the hearing comments and exchanging knowledge between the company and customer as well as bringing suggestions. The suggestions will be analyzed and diagnose for improvement for better customer satisfaction. In 2018, there were government agencies, customers from domestic and overseas paid a courtesy visit the Tirathai transformer production process totaling 51 people, such as the Metropolitan Electricity Authority, Provincial Electricity Authority, Thai Standards and Quality Association, National Science and Technology Development Agency (NSTDA), Metropolitan Waterworks Authority, International Copper Association, etc.

6.7 Satisfaction survey the company had conducted the satisfaction survey from customers who attended the Witness test in the topic of satisfaction in services of sales, testing personnel, production and testing processes, products, and the environment, In 2018, the satisfaction survey showed satisfactorily results in accordance with the target 80%.



6.8 Complaints the company has the process to receive complaints about quality of products and services through many channels as such; 30 lines of call center, e-mail, and faxes. The company operate 24 hours call center is 24 hours in order to respond customer complaint and solve problems spontaneously.

7. Participation of Community and Society Development

The company commit to be good member to the society and operates its business by recognizing social responsibilities, profit sharing, and return to creative community at large in order to drive the business, community, and society to grow up sustainably through the following activities and programs:

Practices and Guidance

Learning resources outside the classroom

The Company has a policy to provide the organization as a learning resource outside of the classroom in the transformer manufacturing engineering of the country. The students are exposed to the production process of transformers for both Distribution Transformer and Power Transformer. In 2018, there were students from various educational institutions visited the transformer manufacturing process including quality management systems, environment and safety from junior high school to master degrees a total of 447 people, such as the Faculty of Engineering Ubon Ratchathani University, Samutprakarn School, Rajamangala University of Technology Thanyaburi, South-East Asia University, Pathumwan Institute of Technology, King Mongkut's Institute of Technology Ladkrabang, Don Bosco Technology College, Faculty of Engineering Chulalongkorn University etc.

In addition, company has collaboration program on internships and cooperative education from various universities with an aim of providing students with practical work experience. In 2018, there were 53 students enrolled in the internship, paying a total allowance of 771,758 baht.

Public Benefit Activities

On April 30, 2018, the company supported the study by giving test transformers of 5 kVA 1Ph 50Hz 2x380 - 4x173 V to King Mongkut's University of Technology Thonburi to use for practical teaching to students. The company allowed students of the institute and faculty to participate in learning from the design process, production process, including the testing process

8. Environmental Management

Environmental management must be operating along with business operation. The Company has conducted policy to administer the environment in consideration of impact from the production process or any activities by abiding the environmental friendly practices, laws, and regulations strictly which leads to true sustainable growth of community and business.

Practices and Guidance

1. The company obtained the certificate of ISO14001 standard for all the area in the company by an assessment of independent outside evaluator. According to the latest assessment in 2018, Major Non-compliance are not detected, only Minor Non-compliance.

2. The company complies with environmental laws and also investigates environmental effects found that any pollution levels are normal based on environmental standard as follows,

Air pollution

The company has installed a Bag House Filter to vacuum dust caused by the process of producing insulation paper. The quality of air released from the insulating paper production process and other areas of the process are monitoring in order not to affect the environment and neighboring communities.

Water pollution

The company completely controlled the wastewater system. When water were consumed and used, it will be transferred to wastewater system. The wastewater will be examined monthly, such as pH, BOD, COD, Oil & Grease, SS, TDS, and TKN are used as examining methods. Terms and conditions as designated by laws.

Noise pollution

The company regularly checks noise volume. The source of noise is from the working machine. Therefore, in consideration of effects, which will affect employees, and nearby community, noise volume will be checked at least yearly by taking the average of 8 working hours. Terms and conditions as designated by laws

Industrial waste

The company adopted the process to dispose of industrial waste from the production process be segregating waste into 3 types;

1. Common waste;
2. Recycling waste; and
3. Hazardous waste.

The company has hired the agency who has the license to collect hazardous waste, transport, treatment, and dispose of and or unused materials as according to the waste type. Besides, the company is making sure of the waste management process out of the factory, the company has sent the safety representative to double check the landfills and segregate the contaminated materials. On March 14, 2018, the company was inspected by West 2 Energy Company Limit-



ed and AK Mechanics and Recycling Company Limited.

3. The company received the Green Industry certification in 4th. Level (Green Culture) from Green Industry Promotion and Development Office Ministry of industry. The goal is to create a green culture under the project "Garbage Smuggled" to encourage all employees to be conscious of waste separation and environmental protection.

4. In 2018, the company had no complaints about environmental issues or misconduct from any inside and outside the company.

9. Innovation and dissemination of innovation for Corporate Social Responsibility (CSR)

The company has adopted the knowledge, creativity, and experience in business administration combined with socio-economic Sufficiency Economy that beneficial to the economic and society to develop, deploy and innovate to create business innovations that can create benefits, increase competitiveness as well as create added value for business and society at the same time

Practices and Guidance

Transformer Testing is the crucial process that determine the quality of Transformers in order to build confidence and acceptance from customers. Tirathai has brought knowledge, creativity, and long-term business experiences integrated with the sufficiency economy philosophy to implement and innovate by developing an up-to-date transformer testing and calibration laboratory according to international standards, such as IEC, IEEE, ANSI, etc. At present, Tirathai's Testing Laboratory is capable of maximum testing up to 900 MVA 3 Ph. 50 Hz 550 kV. and certified the following scope of testing;

- Lightning Impulse Tests
- Line Terminal AC withstand test
- Switching Impulse Test

According to IEC 60076 standard, added from the original test list it is considered that the company's electrical testing laboratory has been certified for the ability to test the transformer to meet the required standards. In addition, the Electrical Testing and Calibration Laboratory of Tirathai has also been certified with the laboratory standard according to ISO / IEC 17025: 2005 from the Thai Industrial Standards Institute (TIS). This will create opportunities for business competition both domestically and internationally.

The Development of transformer testing capability of Tirathai is the investment in human resources development of the company up to the potential of high voltage knowledge. It can be applied for testing other devices such as power cables, overvoltage traps, etc., to support research and development in other industries. Tirathai's testing and Calibration Laboratory has also been appointed by the Thai Industrial Standard Institute (TIS) to be the Third Party testing center for transformer testing.

10. Publication of Corporate Social Responsibility Report (CSR report)

The company emphasizes on the exposure of information, which reflects the practice of Corporate Social Responsibility (CSR) as stated earlier. From the publication of information, not only it will be advantageous for stakeholders, every respondents will have feedback to the company about the CSR quality that it reaches the goal or not.

Practices and Guidance

1. The company has published CSR report in the annual report and through the website www.tirathai.co.th, stating the information as follows,

1.1 Business administrations. The Company operates in accordance with the laws and regulations. Transparent Disclosure of important information is subject to good corporate governance policy taking into account of the benefits to shareholders, employees, community and society, partners, customers, competitors, creditors and all stakeholders as well as being a good member of the society and doing business by recognizing the collective responsibility.

1.2 Environmental and safety operations. The company focus on working Environment and safety by concerning Environment and safety by concerning safety in works, health, and suitable environment for employees. These are main concerns in business administration which lead to the organization of the environment (ISO 14001), occupational health safety and environment master plan (OHSAS /TIS 18001), and waste disposal process which designated as laws and another regulations.

1.3 Social operations. The company treats employees equally in unbiased employment (without violating human rights), reasonable profits, workplace welfare suitable for employees' needs, and employee's enhancement in sufficient to company's values. Furthermore, the company makes itself as an external learning source about the electric transformer production engineering of the country by allowing students from many education institutes to participate in the transformer production process. Also the collaboration with the financial supports and tools for building high-voltage laboratory, combining with the permission of internship and co-operative education. These shows that Tirathai is more than Thai electric transformers manufacturer, with dedication of stimulating the education of Thai citizens.

2. The company offered numerous ways of information distribution in order to easily access. The company published the CSR report in both Thai and English through the following media: annual report, and the information distribution on website www.tirathai.co.th, 56-1.

