

## ASIA ECO-DESIGN ELECTRONICS (AEDE) COUNTRY REPORTS: EXECUTIVE SUMMARY

### THAILAND

#### Background

The electrical and electronic (EE) industry has seen substantial growth in recent years in Thailand, and the sector has been a major driver of export growth for the country. The EE industry is dominated by foreign investment companies. Thai owned enterprises are mostly small, employing less than 50 workers or owning business assets not more than 50 million baht. Almost half of total exports are to Japan, the US and EU and the rest to China and ASEAN countries.

The industry is made up of assemblers and suppliers. Assemblers are mainly large foreign invested firms or joint ventures producing brand products for domestic and export markets. Most of the suppliers are small and medium sized enterprises (SMEs). Within the supplier category, the majority of the domestically owned companies produce electrical products (e.g. rice cookers, TVs) for the domestic market whereas the electronics firms are generally foreign joint ventures.

Thailand has a systematic waste management strategy for certain product categories such as for Cathode Ray Tubes (CRT). Other than that, i.e. TV & PC end-of-life products, waste management has not been uniform. End-of-life household products are normally dismantled by informal collectors. Saleable parts needed by the material refinery business are then sold to private traders.

#### Implications of EU legislations on suppliers

- The impact of WEEE in Thailand is largely reflected in the imported quantities of WEEE, despite the notification issued by the Department of Industrial Works Notification on Permitted Conditions of Importing the Used Electrical and Electronic Equipment as Hazardous Substances into the Kingdom, 2003. According to official statistics there were 2 million tons of WEEE imported to Thailand between January and September 2005 and 1,200 tons between January and May 2005.
- Since 2004 a voluntary network has been established, with the name “ThaiRoHS” or “ThaiRoHS Alliance,” to organize efforts to help one another, reducing repeat or redundant implementation, leveraging minimum requirements and providing guidelines for SMEs.
- Although it is claimed that the majority of Thai producers are RoHS compliant, obstacles to RoHS adjustment still prevail. These include material costs, lack of information related to materials and technology.
- SMEs face un-even burdens relative to the large ones, in terms of management costs, product re-evaluation cost, capital costs including new processes and new quality control schemes, lower yield and generation of more waste, and waste management costs.
- Environmental concerns result in higher cost burdens; important for 2nd and 3rd tier suppliers as compared to 1st tier suppliers.
- Adjustment requires companies to provide proof of compliance, new material quality or reliability testing, and monitoring compliance. These can become additional cost burdens for smaller suppliers, resulting in the possible marginalisation.
- There is a possibility that qualified professionals in smaller companies with knowledge of how to manage WEEE, RoHS and EuP requirements will be poached by larger companies.

#### Gaps and needs for capacity building

- A substantial proportion the Thai companies have good management skills and are ISO 14000 and ISO 9000 compliant. There is however a need to provide assistance through the provision of information, training courses, forums for information exchange, handbook or tools for the adjustment, financial support, and reliable sources of materials or parts. Knowledge or assistance may be supplied by some form of one-stop service. Forums for news or information

or knowledge or opinion exchange or discussion forums may imply one assisting another or participating in the adjustment of another.

- For meeting the requirements of EuP, the major areas where gaps still remain relate to information on products' useful life, energy efficiency, and material usage.
- On the technology front, the demand is for the following; analysis of hazardous substances in materials; technological management of hazardous waste; lead free technology for parts and materials; recycling technology; lead free soldering, material qualification/reliability tests; analysis techniques and process control for metal hardening; flame retardants in IC packaging compounds; flame retardants in PCBs; flame retardants in cables and connectors; general flame retardants; chromium hardening; and, training on eco-design.

### **Capacity building plans**

Strategic development and capacity building in EE industry rests on the availability of trained personnel working in EE industry and the rapid development of EE technology. The Thai Electronic and Electrical Industry (EEI) have identified the following plans and activities to be implemented in a short term plan (1-2 years) and a medium/longer term plan (3 or more years).

- Curriculum development (2 years):
  - Development of technological curriculum in EE industry.
  - Development of curricula for standards personnel, engineers, technicians, and supervisors in EE industry.
  - Development of administration for manufacturers.
- Development of National Labour Skill Certification and Wages in EE industry (2 years):
  - Development of national EE skill certification.
  - Determination of national wages following labour skill certification system.
- Preparation of unskilled workers:
  - Technician training (4 years).
  - Graduated student training (2 years).
  - Training of labourers from other industries (2 years).
- Development of trainers and EE manufacturers:
  - Workshops for trainers in EE technology (4 years).
  - Workshops for EE manufacturers on best practices (4 years).

**For more information, see [www.cfsd.org.uk/aede](http://www.cfsd.org.uk/aede).**

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