IN PARTNERSHIP WITH

Institute of Integrated Electrical Engineers of the Philippines (IIEE), Inc.

The Institute of Integrated Electrical Engineers of the Philippines, Inc. (IIEE) is the organization of electrical practitioners and the only Accredited Professional Organization (APO) of electrical practitioners by the Professional Regulation Commission (PRC). IIEE is committed to (1) upgrade the professional credentials of its members through the Continuing Professional Development (CPD) programs; (2) enhance their social standing through the promotion of high ideals of integrity and ethics; (3) facilitate advancement of technology transfer through carefully conceived educational and training programs; and (4) provide opportunity for regular interaction among electrical practitioners.

European Chamber of Commerce of the Philippines (ECCP)

The European Chamber of Commerce of the Philippines (ECCP) is a service-oriented organization whose main goal is to foster close economic ties and business relations between the Philippines and Europe. The ECCP does this by providing a wide range of business services and by creating linkages between companies, organizations and individuals with existing or potential business interests in Europe and the Philippines. The ECCP sees itself as the stepping stone for Europeans into the Philippine market and for Filipinos into the European market.

Asia Society for Social Improvement and Sustainable Transformation, Inc. (ASSIST)

Asia Society for Social Improvement and Sustainable Transformation (ASSIST) is an international non-government organization focused on capacity building. It seeks to promote sustainable practices to address social problems in the developing world, with focus on Asia and Africa. ASSIST takes pride in its process-oriented approach to capacity building towards social improvement and sustainable transformation. ASSIST has been a notable partner in past SWITCH Asia projects in the Philippines such as the "Green Philippine Islands of Sustainability", and the "Zero Carbon Resorts".

Association of Development Financing Institutions in Asia and the Pacific (ADFIAP)

ADFIAP is the focal point of all development banks and other financial institutions engaged in the financing of development in the Asia-Pacific region. Its mission is to advance sustainable development through its members. Founded in 1976, ADFIAP has currently 112 member-institutions in 41 countries. The Asian Development Bank is a Special Member of the Association. ADFIAP is also a founding member of the World Federation of Development Financing Institutions composed of regional associations in Africa, Asia-Pacific, Latin America and the Middle East. ADFIAP is an NGO in consultative status with the United Nations' Economic and Social Council. The permanent Secretariat of ADFIAP is based in Makati City, Metro Manila, Philippines.

Association Action for Sustainable Development (ASD)

ASD, the Association Action for Sustainable Development was one of the implementing partners responsible for conducting the "Scoping Study on Opportunities for High Efficiency Motors in Philippine Industries" funded by IFC World Bank. ASD also was a partner in the project "Definition of Appropriate Mechanisms for the Adoption of Energy Efficient Motor Systems (EEMS) in the Chinese Energy-Intensive Industry" funded under the EU-China Energy and Environment Programme.

International Copper Association Southeast Asia (ICASEA)

The International Copper Association Southeast Asia (ICASEA) is the leading organization for promoting the use of copper in Southeast Asia. ICASEA increases awareness and usage of copper by communicating the unique attributes that make this sustainable element an essential contributor to the formation of life, to advances in science and technology, and to a higher standard of living. ICASEA has partnered with IIEE in developing and implementing sustainable energy programs, including another EU-Switch Asia funded project, the ASEAN-SHINE.

CONTACT INFORMATION

IIEE
41 Monte De Piedad St.,
Cubao, Quezon City

Tel: (+632) 2154716
Fax: (+632) 410 1899

ECCP
19/F Philippine AXA Life
Centre Sen. Gil Puyat
Avenue corner Tindalo St.
Makati City

Tel: (+632) 845 1324
Fax: (+632) 759 6680

ASSIST
5/F A&V Crystal Tower,
105 Esteban St, Legaspi
Village, Makati City

Tel: (+632) 403-8668
Fax: (+632) 403-8358

ADFIAP
2/F Skyland Plaza,
Senator Gil Puyat Avenue,
Makati City

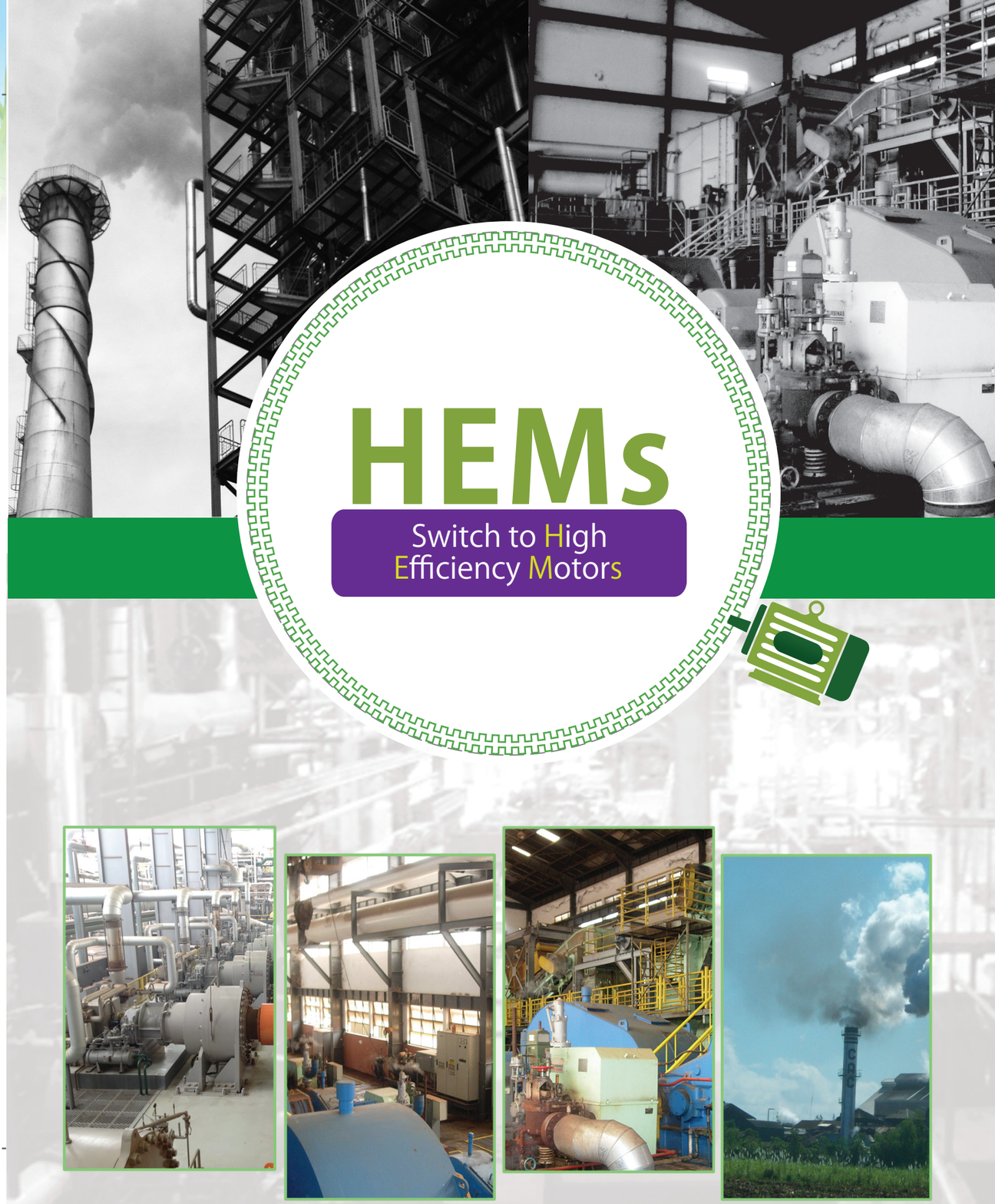
Tel: (+632) 816 1672
Fax: (+632) 817 6498

ASD
RN2 PK9, 7, 97351
Matoury, France

Tel: +86-159-0100-7376

ICASEA
United Business Center II Bldg, Suite
1208, 12th Floor, 591 Sukhumvit
Road (Corner Soi 33), Wattana,
Bangkok 10110, Thailand

Tel: (+662) 662 3465
Fax: (+662) 261 8615



HEMs

Switch to High Efficiency Motors

FUNDED BY

European Union

IMPLEMENTING PARTNERS

IN ASSOCIATION WITH

www.hems.ph

BACKGROUND

In the Philippines, the industrial sector accounts for 27.4% of total electricity consumption, and 65-70% of electricity consumption in industries are due to electric motors. These electric motors are however considered outdated and inefficient. Fortunately, results of a scoping study funded by the International Finance Corporation (IFC) in 2010-2011 found that the efficiency of these motors could still be dramatically improved. The easiest approach would be replacements and use of high-efficiency motors (HEMs) and systems.

Usually, 50% of motors are rewound periodically resulting to a corresponding drop of about 5-10% of its efficiency. Another factor is that significant numbers of the motors in place are also either undersized or oversized to compensate foreseen losses due to the low efficiency. The lack of proper sizing of motors leads to even lower efficiency and negatively impacts the life of the motors. Same issues are met due to misalignments producing vibration and harmonics problems. The result comes back again to lower efficiency and excessive power consumption.

In this project funded by the European Commission's SWITCH-Asia Programme, showcasing and promoting high efficiency motors and drive systems will be the main goal targeting one of the main industries of the country, which is the sugar industry.

PROJECT BRIEF

Title:
HEMS (Switch to High Efficiency Motors and Drive Systems)

Project Duration:
48 Months

Location:
Philippines

Target Sector:
Target Sector: Energy intensive industries using electric motors and drive systems (Primarily Sugar Industries)

Primary Target Groups:

- Sugar Industries
- Other energy intensive industries
- Financing Institutions
- Energy Service Companies (ESCOs)/Equipment and Service Providers
- Government bodies

SPECIFIC OBJECTIVE

To increase the deployment of more efficient electric motors and drives systems in Philippine industries through the design of model investment and financing schemes, the implementation of replicable pilot projects, and through the mobilization of key stakeholders including government authorities and agencies, industries (end-users and service providers), and the private financing sector.

PROJECT OUTCOMES

- The technical and financial feasibility and benefits of adopting HEMs are demonstrated and documented.
- Access to financing for sugar milling, other electric motor-intensive industries, and ESCOs and equipment / service providers are facilitated.
- The capacity of commercial banks to evaluate HEMs investments, especially regarding technology risk is built.
- The capacity of ESCOs and service providers to investigate and implement HEM projects in the Philippines industry is built.
- A supportive policy framework for HEMs investments is put into place.
- Project developers, SMEs and financier have increased ability and capacity to get information, discussing and negotiating business opportunities related to HEMs.

WORK PACKAGES

1. Pilot Project
Demonstrate the technical and financial feasibility and benefits of adopting HEMS through pilot projects for sugar mills

2. Financing
Establish private funding programs to facilitate access to financing for sugar mills, other electric motor-intensive industries, and ESCOs and equipment /service providers

3. Capacity Building for Commercial Banks
Build up the capacity of commercial banks to evaluate HEM investment, especially regarding technology risk

4. Capacity Building of ESCOs and Service Providers
Build up the capacity of ESCOs and service providers to investigate and implement HEM projects

5. Policy Advocacy
Put in place a supportive policy framework for HEMs investment

6. Networking, Dissemination and Business Matching
Increase the capacity of project developers, SMEs and financier to get information, discuss and negotiate new business opportunities

IN ASSOCIATION WITH

Philippine Sugar Millers Association, Inc.
The Philippine Sugar Millers Association, Inc. (PSMA) is a non-stock, non-profit organization of sugar millers which seeks to promote the development of the sugar industry through increased efficiency, productivity, and sustainability in a socially-responsible environment. PSMA likewise works for the advancement and protection of the sugar industry. Current membership consists of 16 mills which produce 82 percent of the total Philippine sugar production. As such, it carries considerable weight in policy formulation in the industry in conjunction with the Sugar Regulatory Administration.

Bank of the Philippine Islands
Wide array of deposit and loan products for corporates, middle market, SMEs, consumers and microfinance. Services clients through more than 800 branches nationwide and other delivery infrastructure such ATMs, business centers and remittance offices. Has a Sustainable Energy Finance Program which caters to financing requirements of energy efficiency and renewable energy projects.

Department of Energy
The Philippines' Department of Energy (Filipino: Kagawaran ng Enerhiya), abbreviated as DOE is the executive department of the Philippine Government responsible for preparing, integrating, coordinating, supervising and controlling all plans, programs, projects and activities of the Government relative to energy exploration, development, utilization, distribution and conservation.