

Charter of the Parties

Standard Swapable Battery Consortium for Small E-Mobility

Background and Importance

According to the government's policy aiming to make Thailand the hub of electric vehicles (EVs) in ASEAN, efforts are being made to promote research and development of key components, as well as to establish standardized and high-quality production capabilities. This will lead to widespread use within the country. Small electric vehicles are one type of EV that has garnered interest for development as a national EV product. Over the past 2-3 years, small EVs have seen a noticeable increase in adoption and sales, although they are still limited to specific groups due to high prices and the inability to fully meet usage demands. Additionally, there are relatively few manufacturers due to the lack of domestic technology. If the country wishes to transition and create new opportunities in small EVs, collaboration in developing relevant technologies and enhancing manufacturer capabilities to ensure ease of use and reasonable prices is crucial.

A standard swapable battery platform for small EVs is one approach that will lead to more widespread use, reduce costs, and create standardized and high-quality production capabilities for small EVs. This will contribute to carbon neutrality and the development of a self-sustaining industry within the country, in line with government policy. For these reasons, the National Science and Technology Development Agency (NSTDA) has initiated a research project titled "Research and Development of a Standard Swapable Battery Pack Platform for Electric Motorcycles to Enhance the Modern Automotive Industry in Thailand," with funding support from the Office of National Higher Education Science Research and Innovation Policy Council (NXPO). The project is part of Platform 3: Research and Innovation to Enhance Competitiveness, under Program 10: Enhancing Competitiveness and Laying Economic Foundations for the Year 2021, Contract No. C10F640176. One of the main outcomes is a standard platform for swapable battery packs for electric motorcycles, developed in consultation with various stakeholders.

Implementing the standard platform for swapable battery packs, which will create a complete industrial value chain for the use of swapable battery packs in small EVs that rely on domestic technology and production, requires continuous collaboration among relevant agencies.

Objectives

Promote the use of standardized swappable battery packs that rely on domestic technology and production within three years, focusing on small EVs.

Mission

1. Promote collaboration to establish standards related to swappable batteries for small EVs, starting with electric motorcycles, including size, communication systems, plug and socket types, and other related aspects, as announced by the government and accepted by stakeholders, including manufacturers, electric motorcycle users, swap stations, and others.
2. Promote the acceptance of standard battery packs, leading to production and widespread use of standardized swappable batteries in small EVs, such as electric motorcycles, electric tricycles, or other small EVs.
3. Promote the use of standard battery packs and the establishment of swap stations in key community, business, and tourism areas in the country.
4. Develop guidelines for managing standard swappable battery packs during use and after their lifecycle in EVs, for use in other activities to ensure maximum value, safety, and environmental protection.
5. Develop and exchange information and perspectives on technology, production, personnel, and other related aspects to promote the value chain of standard swappable battery packs.

Activities under the Consortium

1. Awareness-building activities to promote the importance, benefits, and business opportunities of using standard batteries.
2. Organize meetings and seminars to gather opinions and compile information.
3. Build networks and collaboration among consortium members and external agencies.
4. Exchange personnel and tools related to supporting consortium activities.
5. Manage the consortium's committees and working groups.
6. Secure funding sources to support various operations under the consortium's objectives/mission.

Consortium Structure

1. Types and Qualifications of Members

There are six types of members:

1. Founding Members: Agencies that initiated the establishment, responsible for the main research and development activities of the consortium, to carry out the consortium's mission, and serve as the executive committee for the first three years to set the direction, policies, and operational plans of the consortium, and appoint working groups as appropriate.
2. Honorary Regular Members: Legal entities involved in the establishment of the consortium and conducting activities aligned with the consortium's goals and mission, participating in activities to promote the consortium's goals and mission, approved by the executive committee.
3. Regular Members: Legal entities conducting activities aligned with the consortium's goals and mission, participating in activities to promote the consortium's goals and mission, expressing interest in joining the consortium, and approved by the executive committee.
4. Associate Members: Thai legal entities interested in businesses or technologies related to the value chain of standard swapable batteries for small EVs, expressing interest in joining the consortium, and approved by the executive committee.
5. International Associate Members: Foreign legal entities interested in businesses or technologies related to the value chain of standard swapable batteries for small EVs, expressing interest in joining the consortium, and approved by the executive committee.
6. Honorary Members:
 - a. Experts involved in the establishment of the consortium, invited by the executive committee.
 - b. Representatives of advisory agencies involved in the establishment of the consortium, invited by the executive committee.

2. Membership Admission

- 1) Applicants for regular, associate, and international associate membership must submit an application form to the registrar.
- 2) Membership admission must be approved by the executive committee, with the registrar presenting the application to the committee for approval. Once approved, the registrar will notify the applicant in writing for registration and payment of dues.
- 3) Membership admission must be approved by the executive committee, with the registrar presenting the application to the committee for approval. Once approved, the registrar will notify the applicant in writing for registration and payment of dues.

3. Member Benefits

- 1) Founding Members:
 - a. The right to vote or be elected as executive committee members and the right to vote on various matters in the executive committee meetings, with one vote per agency.
 - b. The right to participate in meetings and activities of the consortium, provide opinions on operations or activity topics to the committee, and serve as working group members in various activities.
 - c. The right to access information and proposals generated by the consortium.
 - d. The right to commercialize or use the results of the consortium's activities for public benefit.
 - e. The right to receive news and participate in activities organized by the consortium.
- 2) Regular and Honorary Regular Members:
 - a. The right to participate in meetings and activities of the consortium, provide opinions on operations or activity topics to the executive committee, and serve as working group members in various activities.
 - b. The right to access information and proposals generated by the consortium.
 - c. The right to commercialize or use the results of the consortium's activities for public benefit, subject to agreed conditions.
 - d. The right to receive news and participate in activities organized by the consortium.
- 3) Associate and International Associate Members:
 - a. The right to access information and proposals generated by the consortium.
 - b. The right to receive news and participate in activities organized by the consortium.

4. Consortium Dues

Consortium dues are divided into entrance fees and annual dues as follows:

Founding Members:	No entrance fee and no annual dues.	
Honorary Regular Members:	Exempt from entrance fee and first-year dues. Annual dues for subsequent years are 5,000 THB.	
Regular Members:	Entrance fee of 5,000 THB.	Annual dues of 5,000 THB.
Associate Members:	Entrance fee of 5,000 THB	Annual dues of 5,000 THB.
International Associate Members	Entrance fee of 500 USD	Annual dues of 500 USD.
Honorary Members:	No entrance fee and no annual dues.	

5. Termination of Membership

Membership will terminate under any of the following conditions:

- 1) The legal entity status ends, or the individual dies.
- 2) Resignation by submitting a notice to the executive committee at least 60 days in advance.
- 3) The executive committee officially resolves to terminate the membership.
- 4) Failure to pay consortium dues within 180 days after the invoice date.

List of Founding Members

1. National Science and Technology Development Agency (NSTDA)
2. Office of National Higher Education Science Research and Innovation Policy Council (NXPO)
3. National Higher Education Science Research and Innovation Policy Council (NXPO)
4. Thailand Automotive Institute (TAI)
5. Electric Vehicle Association of Thailand (EVAT)
6. Thai Energy Storage Technology Association (TESTA)

Operational Structure

1. The consortium is governed by an executive committee consisting of the following positions:

Chairman of the Executive Committee: Selected and appointed by the committee.

Committee 1: Representative from the National Science and Technology Development Agency.

Committee 2: Representative from the Office of National Higher Education Science Research and Innovation Policy Council.

Committee 3: Representative from the Thailand Automotive Institute.

Committee 4: Representative from the National Higher Education Science Research and Innovation Policy Council.

Committee 5: Representative from the Electric Vehicle Association of Thailand.

Committee 6: Representative from the Thai Energy Storage Technology Association.

Secretariat: Representative from the National Energy Technology Center.

2. The term of the committee is three years.
3. All consortium operations, including membership applications, must be approved by at least half of the committee members.
4. Activities are carried out by working groups for each activity, approved by the executive committee, with quarterly reports to the executive committee. Each working group can appoint a chairman and members as appropriate.

Ethics in Operations

1. The consortium must maintain neutrality in its operations.
2. Members must not violate the rights of other members and must protect confidential information of member agencies.
3. The consortium must not interfere with the procurement and service operations of its members.

If any member violates the above ethical guidelines, their membership and the rights granted by the consortium will be revoked immediately.