International District Cooling & Heating Conference
Consumer tariffs and markets

Accelerating Urban Energy Systems in the Asia Pacific Region

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Asia Pacific Urban Energy Association
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Urban Energy Use

- 86% North America
- 81% Western Europe
- 84% North Africa & Middle East
- 54% Sub-Saharan Africa
- 85% Latin America
- 72% Eastern Europe
- 51% South Asia
- 78% Former USSR
- 64% Asia Pacific (Including South Asia)
- 78% Pacific OECD

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Within cities, the proportion of energy use by various sectors differs by economy.

Cities in Asia Pacific region require different urban energy solutions depending on climate and dominant sectoral consumption:

- Singapore – Buildings
- Shanghai – Industry
- Bangkok – Transport
The Burning Platform

- **Governments struggle** to keep pace with the growing demand for energy infrastructure while striving to meet the requirements for **livable cities**, including access to energy services and provision of healthy and safe environment.

- **Air pollution** is one of the highest risk factors for death globally, accounting for more than **5.5 million fatalities** each year. In many cities in the Asia Pacific region, the daily pollution levels can peak above **300 micrograms per cubic meter – twelve times** the recommended maximum in the World Health Organization (WHO)’s air quality guidelines.

- There are currently **17 megacities** in the Asia Pacific region (expected to reach 22 by 2030).

- Cities account for more than **70 percent** of global carbon dioxide (CO₂) emissions.

- There is no single solution to these challenges; sustainable urbanization in the Asia Pacific will require **cross-sectoral efforts**.
Urban Energy Systems

- Energy Production
- Energy Storage
- Consumers & Prosumers
- ICT
- District Energy & Smart Grids

- Flexibility
- Efficiency
- Intelligence
- Competitiveness
- Integration
- Reliability & Safety

- Planning
- Design
- Procurement / Equipment Supply
- Construction & Installation
- Commissioning
- O&M

Supported by: DBDH, EUROHEAT & POWER, IIEC
District Energy Development in Asia Pacific

Lessons learned from China

• Terminologies and buzzwords
• Regulatory differences (DC vs DH)
  • Market regulations
  • Economic regulations
  • Social regulations
• Geographic diversity
• Professional practice gaps along the project value chain
• Need for cross-sectoral planning

Opportunities

• Rapid growing demand
• Recognized energy supply concept globally
• Regional awareness and know-how
• Available financing and business models
• Global initiatives
• Accelerate development by establishing a regional unifying platform to bridge various stakeholders – Asia Pacific Urban Energy Association (APUEA)
Mission

To actively promote the development of sustainable urban energy systems in the Asia Pacific region.

Objectives

APUEA is a platform that:

• Convenes cross-sectoral stakeholders focusing on sustainable urban energy;
• Promotes market development for sustainable urban energy systems;
• Shares global and regional experiences and best practices;
• Supports city and regional policymakers, program managers, and other stakeholders in the design, development, and support of sustainable urban energy systems; and
• Serves as a bridge between the Association’s members and governments/international agencies in the Asia Pacific region.

Members of Advisory Board

• Asian Development Bank (ADB)
• Danish Board of District Heating (DBDH)
• Euroheat&Power (EHP)
• United Nations Environment

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# APUEA Activities and Memberships

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Description</th>
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<tr>
<td><strong>Regional Urban Energy Systems Database</strong></td>
<td>A comprehensive database of information from the Asia Pacific economies on policies, regulations, responsible agencies, key contacts, implemented projects, and upcoming development activities relating to urban energy systems. The database is updated regularly.</td>
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<td><strong>Online Portal (<a href="http://www.apuea.org">www.apuea.org</a>)</strong></td>
<td>The portal includes current news, best practices, publications and reports, statistics, and a calendar of events.</td>
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<td><strong>Regular Newsletters</strong></td>
<td>Periodic newsletters highlight the latest news and information on urban energy systems.</td>
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<td><strong>APUEA Quarterly Magazine</strong></td>
<td>The magazine includes articles on relevant technologies, case studies, new products and other information on APUEA’s activities, including membership updates and information on up-coming projects. Commercial advertising space is available.</td>
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<td><strong>Annual Publication – “Asia Pacific Urban Energy Outlook”</strong></td>
<td>Includes a summary of the past year from an urban energy system perspective, including trends, policies, project highlights, events and relevant statistics (e.g., energy demand, fuel-mix) and perspectives on the future of sustainable urban energy systems.</td>
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<td><strong>Annual General Meeting and Trade Exhibition</strong></td>
<td>This is open to all members and hosted in different member countries. It provides an opportunity for business discussions and networking, and features a trade exhibition of private sector products and services. The duration is 3-5 days.</td>
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<td><strong>Direct Assistance</strong></td>
<td>The APUEA secretariat responds to direct requests from members for information or contacts related to urban energy.</td>
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**Active member**

Member that wants to benefit from the Association and takes an active role in the Association in terms of its governance and operation.

**Allied member**

Member that wants to benefit from the Association but chooses not to take an active role in the Association in terms of its governance and operation.

**Affiliated member**

Affiliate members include NGOs, development agencies, and utility organizations, as well as individuals or agencies invited by the Association to participate. An Affiliate member benefits from the resources of the Association but does not take an active role in the governance and operation of the Association.
Sign up for APUEA Membership!

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