Travaux de l’AIE sur les bâtiments et les quartiers
TCP « Energy in Buildings and communities

Nicolas Doré, chef de service Adjoint
Service Bâtiment
ADEME
19/05/2021
Les accords AIE permettent :

- Aux pays participants de coopérer sur des thèmes spécifiques de recherche, technologie et de politique (travail dans des annexes ou aux tâches) ;

- La contribution/adhésion de la France **ouvre la porte** aux acteurs français pour participer aux annexes ;

- D’alimenter la **politique française** en montrant des exemples d’autres pays (faire bouger les choses) ;

- D’être au point sur l’**expertise** : sources de référence, échanges de résultats de R&D et de sujets non techniques, l’état d’avancement des connaissances ;

- De promouvoir les **intérêts industriels français** (vitrine du savoir-faire, renforcement de la compétitivité).
Les accords AIE :

• Sont des accords multilatéraux entre états, ce qui nécessite une implication du ministère ;

• nécessitent de payer une contribution ;

• sont organisés de manière pérenne, et permettent des échanges entre chercheurs publics, chercheurs de l'industrie et les représentants des états ;

• offrent une plateforme d'échange pour les grandes régions mondiales (l'Europe, l'Amérique et l'Asie) et avec les pays émergents ;
Les 8 TCP sur le sujet bâtiments

- **Energy in Buildings and Communities (EBC)**
- **Efficient Electrical End-Use Equipment (4E)**
  - A new international collaborative programme to promote wider use of more energy-efficient electrical equipment. Using energy efficient equipment is the most cost-effective short-term path to greater energy security and lower greenhouse gas emissions to combat climate change. The IEA estimates that energy-efficiency improvements could contribute 47% of reductions in energy-related CO2 emissions potentially achievable by 2030. Electrical equipment is produced and traded on a global scale. Very substantial gains are possible if energy-efficiency issues are addressed through international cooperation and interaction, being crucial when responding to governments' need for guidance. This new Implementing Agreement may constitute an essential collaborative tool.
- **Energy Storage (ECES)**
  - Energy storage technologies are a strategic and necessary component for the efficient utilization of renewable energy sources and energy conservation. There is a great technical potential to substitute for burning fossil fuels by using stored heat that would otherwise be wasted and using renewable generation resources.
- **Heat Pump Centre (HPC)**
  - The Heat Pump Programme is the foremost worldwide source of independent information and expertise on heat pump, refrigeration and air-conditioning systems for buildings, commerce and industry. Its international collaborative activities to improve energy efficiency and minimise adverse environmental impact are highly valued by stakeholders.
- **Solar Heating and Cooling Programme (SHC)**
  - The Solar Heating and Cooling Implementing Agreement was one of the first collaborative R&D programmes to be established within the IEA, and, since 1977, its participants have been conducting a variety of joint projects in advanced active solar, passive solar and photovoltaic technologies and their application in buildings and other areas, such as agriculture and industry. The overall Programme is monitored by an Executive Committee consisting of one representative from each of the 18 member countries and the European Commission.
- **District Heating and Cooling (DHC, includes CHP)**
  - Increasing end-use energy efficiency and expanding use of renewable energy are generally recognised as key requirements for reducing greenhouse gas (GHG), promoting sustainable development and reducing vulnerability to supply disruptions. Often overlooked is the critical role that District Heating and Cooling (DHC) can play in meeting these goals by reducing fossil fuel consumption by facilitating productive use of waste heat from industrial processes, electricity generation, waste incineration or renewable energy sources.
- **Demand Side Management (DSM)**
  - The IEA DSM Programme promotes energy efficiency and demand-side management for global sustainable development and for business opportunities.
- **Photovoltaic Power Systems (PVPS)**
  - The Photovoltaic Power Systems Programme is a collaborative R&D TCP conducting projects on the application of solar photovoltaic electricity. IEA - PVPS operates worldwide via a network of national teams in member countries. The mission of the PVPS programme is “To enhance the international collaboration efforts through which photovoltaic solar energy becomes a significant renewable energy source in the near future.” The underlying assumption is that the market for PV systems will gradually expand from the present niche markets of remote applications and consumer products, to the utility market, through building-integrated and other diffused and centralized PV generation systems. This market expansion requires the availability of and access to reliable information on the performance of PV systems, design guidelines, planning methods, etc. to be shared with the various actors defined above.
TCP « EBC » Energy in Buildings and Communities

- Fondée en 1977, environ 80 annexes, 26 pays membres
- Très large Scope :
  - bâtiments/quartier,
  - énergie/carbone,
  - logement/tertiaire;
  - privé/public,
  - techno/financement, …

- Les thèmes prioritaires :
  1. Rénovation : Financement, stakeholders and co-benefits
  2. Aménagement, construction, organisations pour l’amélioration de la qualité de mise en œuvre
  3. Technos low tech, robustes et abordables
  4. Climatisation/rafraîchissement efficaces
  5. Solutions techniques et organisationnelles à l’échelle du quartier.