

ASHRAE 2023/24 Task Force for Building Decarbonization
Global Advisory Panel Meeting Summary
January 22, 2024

Participating Organizations

ABRAVA
AHRI
AICARR
CIBSE
IIR
ISHRAE
NSPE
Phius
RHEVA
SWKI

Introduction

Kent Peterson provided an overview of the activities of the TFBD. This included updates on the guides, training, outreach and the ASHRAE Board of Directors approval of the formation of the Center of Excellence for Building Decarbonization.

Summary of Discussion

The TFBD has been looking at creating a streamlined, flexible building decarbonization code framework for Global South countries. 110 countries currently don't have mandatory energy codes, but IEA says that all countries will need to adopt net zero-ready energy codes by 2030 in order to achieve future net zero emissions scenarios. How could our various organizations collaborate on this effort?

- The UK has a net zero carbon standard. When lacking in legislation the industry needs to collaborate to get change. Industry collaborated so no one group owns it. We all have different terms and definitions and need to have a common net zero building definition and roll it out through industry. Once that is done take it to governments to adopt into building codes.
- CIBSE TM 65 is another example where local addendum are created for different countries. Currently expanding the list of countries (based on demand). The initial ask was Australia and New Zealand. It's expanding to the Middle East, Hong Kong, and North America.
- AHRI mentioned Middle East countries. There are potential good candidates with national energy codes, UAE has targets. We can work with them and our local chapters to update the building codes.
- Countries with aggressive national energy codes are good candidates to start. Bring in organizations that finance the targets like the World Bank/IFC.
- AHRI has pilots in India, Bangladesh, and Sri Lanka.
- Use a strategy of identifying countries that influence specific regions.
- Fast growing areas, such as Indonesia, Vietnam, Thailand, Malaysia are good targets.
- During COP 28, 61 countries signed the building breakthrough pledge. Look at this list of countries for targets.

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- Refrigerant leakage is not the only problem but also refrigerant GWP. If you build a new building or an addition, be careful to future proof the building.
- Focus on the countries adding the most (e.g., 80%) to the carbon footprint in the future.
- Need to change the public opinion about decarbonization in order to move ahead. Public not wanting to change is a problem.
- Need a marketing activity to change public view – walk the talk as an industry.
- Recent event in Switzerland (World Economic Forum) on energy efficiency and attendees come to the event on private jets.
- Do more to educate consumers, policy makers and building owners. Emphasize resilience benefit in addition to decarbonization.
- In developing countries, one size can't fit all.
- It's important to educate designers and final users.
- A research project cited that in very energy efficient homes people were using more energy than those in traditional homes (Jevons rebound effect)
- Research done after the Greenfield Tower Fire in the UK showed that a large problem was that construction products were used that shouldn't have been used. The University produced a framework that listed the things that the national testing certification needed to cover. Perhaps that is the model that should be used for the flexible building code framework?
- Who actually represents the Global South in building regulations? Think you need to hear from Global South representatives from that country. Part of the challenge is how do you get those voices in the room?
- Do the organizations in the room have any connections in the Global South?
- IFC is a partner in India. The EDGE program is the beginning to get people interested in building codes and standards and they will also provide finance to help make it happen.
- Tailor the building code framework to a specific region, as not all countries have the capacity to develop their own codes and standards.
- Really big impacts come from building owner education, technical training, and codes that support financing and incentives. Need to put together a plan that has a bigger impact than just publishing a building standard.
- Work alongside local standards associations in the relevant countries.

All participants were asked to share ideas on how our organizations could work better together on the building codes initiative and other activities.

- Thermal load and efficiency optimization to maximize electric power availability.
- Establishing a standard or guideline for control of refrigerant leakage and recovery would be valuable.
- Get input directly in the target countries. Find out what they want and need from them directly. Understand the nuances of their specific challenges. Developing a standard in a country or area that has huge amounts of privilege will not be well received in areas that are tremendously under-resourced, without understanding their needs.
- Avoid reinventing the wheel, by reviewing similar initiatives that have been done around the world.

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- Verify what the real needs are for developing countries, because they have very different ideas about building decarbonization than we do.
- Please comment on Standard 227 (Passive House Standard) when it is available for public review from a global perspective.
- Please comment on PHIUS REVIVE 2024 retrofit standard when that goes out for public comment.
- Develop a strategic, multi-pronged masterplan for the international building code initiative and form subgroups to formulate tactics for each.
- Take a leadership position in spreading the message that we (industry) are responsible, and that we can make a difference.
- Focus on how our members can reduce their individual carbon footprint. Reductions in per capita carbon emissions is the key to global decarbonization.
- Develop better guidelines for net zero buildings, which are better than conflicting standards or general documents on climate change.
- The use of renewables is as important, and potentially easier to implement, than energy efficiency.
- We should start sharing available guidelines and regulations that are already available.
- Create a database of contacts with stakeholders and members in developing countries.
- We need genuine collaboration that involves the Global South to co-create a framework and it probably needs to be led by non-US/European bodies in order to be taken seriously.
- Define major factors that contribute to building efficiency, prioritize those and start working on them from top to bottom.
- Involve more people from the regions we intend the building code to be implemented in.
- Collaborate with the right people – those implementing in global south.
- Don't make any standard too prescriptive. Allow for local innovations.
- Pay close attention to the actual GHG sources in developing countries (for example, clean cooking). The framework needs to be flexible to address large NDC opportunities in such countries.