UNITED NATIONS FOUNDATION

ENERGY EFFICIENCY ACCELERATOR

BUILDING EFFICIENCY

The Sustainable Energy for All initiative includes among its key objectives the doubling of the rate of energy efficiency improvement. The buildings sector accounts for about one-third of global energy use and energy related GHG emissions. Widespread implementation of state-of-the-art policies, building design and technologies, coupled with behavior change could deliver reductions in energy demand from new and existing buildings of over 50% compared to business as usual (IPCC, 2014).

Achieving such savings would not only significantly reduce GHG emissions, but also produce additional comfort, health, environmental and economic benefits. Essential to achieving such savings is the mainstream adoption of progressive sustainable energy policies for buildings that encourage best available technologies, low-energy new building design and energy efficiency renovation.

SUSTAINABLE ENERGY FOR ALL

BUILDING EFFICIENCY ACCELERATOR

In order to double the rate of global energy efficiency improvement, a Building Efficiency Accelerator is proposed to drive public commitments at a city, state or regional level, actively supported by national governments. A collaborative network of businesses and NGOs will provide tools, expertise, technical capabilities and financial capacity to sub-national governments to help accelerate improvements in coordination with appropriate government entities. A key deliverable of this collaborative engagement will be an integrated policy roadmap, tailored to meet the specific market and regulatory conditions in each city or state. This roadmap will be developed in partnership with key government, business and civil society stakeholders, leveraging existing toolkits and best practice resources readily available from multiple sources. Funding for the policy roadmap development and program implementation will be secured from a variety of public and private financial institutions as part of this collaborative initiative

BUILDING EFFICIENCY POLICIES

Governments can demonstrate leadership by setting building sector energy reduction targets, upgrading the energy performance of existing government buildings and leased space, establishing green procurement standards and constructing new buildings to high efficiency standards. National governments can establish minimum appliance, equipment and building component performance standards. Building codes, which are usually set at a national level or sometimes, in larger countries, at a state level, complete the regulatory package affecting the design and construction of buildings as well as major retrofit and renovation of existing buildings. Municipalities enforce building codes and have jurisdiction over public procurement and development control plans which include land-use zoning, density, setbacks and orientation. Sub-national governments can also create market demand for efficient buildings by requiring benchmarking and disclosure of building energy performance, periodic energy audits, setting targets for building renovation and providing incentives for energy efficient renovations and new construction.

The availability of low-cost financing from public and private-sector institutions is a critical need across sectors. Governments and other institutions can leverage dedicated funds such as European Bank for Reconstruction and Development's Sustainable Energy Initiative or create revolving loan funds and establish loan guarantee reserves. Utility policies, which decouple profits from volumetric sales, encourage the use of ratepayer-funded energy efficiency investments to meet future energy demand requirements at a lower cost than constructing new power plants. Enabling legislation can also support infrastructure investment repayment through utility bills or property tax surcharges, such as Environmental Upgrade Agreements (EUA) in Australia and Property Assessed Clean Energy (PACE) programs in the United States.

REDUCE
ENERGY DEMAND
from new and existing buildings
from over
50%

SUPPORTING ORGANIZATIONS

There are already significant networks, resources and tools available to support the acceleration of building energy efficiency improvements. A few of the many global organizations active in this area include the World Business Council for Sustainable Development (WBCSD), Global Building Performance Network (GBPN), United Nations Environment Programme (UNEP), United Nations Foundation (UNF), International Partnership for Energy Efficiency Cooperation (IPEEC), International Energy Agency (IEA), Clean Energy Ministerial (CEM), Urban Land Institute (ULI), US Green Building Council (USGBC), World Green Building Council (WGBC) and their 100+ national green building councils as well as a number of energy and environmental NGOs and industry think tanks. These organizations offer a variety of policy resources, databases and toolkits to help cities and states engage stakeholders, define goals, develop policy roadmaps, implement programs and track performance.

Multilateral development banks such as the World Bank, EBRD, IDB and the International Finance Corporation (IFC) can provide funding for policy development and project implementation, while private financial institutions can provide project finance for large-scale energy efficiency projects. The World Bank ESMAP Energy Efficient Cities and the IFC EDGE program are examples of current city-based initiatives with development bank support that are well aligned with the activities of the Building Efficiency Accelerator.

KEY STAKEHOLDERS

The Building Efficiency Accelerator will engage key stakeholders to develop a roadmap to double the rate of energy efficiency improvement within city, state or sub-national regions. The following are representative stakeholders who should be involved in the planning, development and implementation process.

GOVERNMENT

- Energy and environment ministers, sustainability directors, utility commissions, building code officials, city energy managers, city facility managers, energy program managers, utilities

BUSINESS

- Architecture and engineering organizations, engineering firms, construction firms, product suppliers, energy services providers, financial institutions

END-USERS

- Real estate developers, investors and management firms, manufacturing associations, hotel and retail chains, healthcare systems, universities, school districts, housing associations, chambers of commerce

COMMITMENTS

The key near-term milestone is securing a commitment from ten or more city, state or regional governments, supported by their national governments, to participate in the Building Efficiency Accelerator. These commitments include engaging in a collaborative process with public and private sector stakeholders leading to the setting of a public goal, to be announced at COP21 in Paris, to double the rate of energy efficiency improvement in public and private buildings within their jurisdiction by 2030. Other commitment elements include definition of the baseline and 2030 goal including intermediate 2020 and 2025 targets, expected environmental and economic impacts as well as annual reporting of actions and progress. The WBCSD Energy Efficient Buildings Manifesto is an example of an existing program that secures public commitments from public and private-sector organizations. The U.S. Better Buildings Challenge is another active commitment program.

There is also an expectation that participating city, state or regional governments will share their commitments, policies and experiences with other governments to assist in their policy planning and commitment development. Participants should have a basic set of existing policies in place, measurements of building efficiency progress to date, and a desire to accelerate their efforts through leadership commitment, policy implementation and public-private collaboration. Cities, states and regions currently participating in the C40 Cities Climate Leadership Group, the R20 Regions of Climate Action, the Climate Group Regions and States Network, ICLEI's Local Governments for Sustainability program, the World Bank ESMAP City Energy Efficiency Transformation Initiative, the Global Green Growth Forum, the Global Cities Covenant on Climate and the Global Cities Institute are initial candidates for making commitments as part of the Building Efficiency Accelerator program.

Commitments from international NGOs and other institutions will be in the form of policy tools, resources and expert assistance. Financial institutions, both public and private, will make commitments to support funding for policy roadmap development, implementation, project execution and performance tracking. Finally, global and local businesses will commit to participation in collaborative policy roadmap development and participation in pilot projects. Global product and service providers will participate in pilot projects and commit to sharing best practices and tools to help educate stakeholders, streamline policy development and reduce performance risk.

CITY/STATE/REGIONAL PARTICIPATION

As a sign of commitment for early and meaningful impact, cities/states/regions will be sought to make charter commitments for participation in this program for announcement at the Climate Summit in September 2014. These commitments will include:

1) engaging in a collaborative process with public and private sector stakeholders leading to the setting of a public goal at COP21 to double the rate of energy efficiency improvement by 2030,
2) quantifying the extent of reductions needed to achieve the goal and a local baseline,
3) estimating the benefits of energy efficiency improvements with respect to carbon emissions reduction, energy savings, cost reduction, occupant health and productivity, job creation and economic growth,
4) implementing progressive and innovative policies and regulations,
5) demonstrating leadership through improvements in government-owned and government-funded facilities and
6) reporting actions and progress annually as well as sharing challenges, solutions, pilot project results and best practices.

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COMMITMENT DEFINITION

In order to participate in the Building Efficiency Accelerator and to qualify for financial, technical and other forms of support, cities/states/regions will provide the following information to detail the specifics of their commitment as well as a proposed timeline for policy development and implementation.

The following information is required for announcement of a building efficiency commitment at the 2014 UN Climate Summit.

1. City/State/Regional jurisdiction included in the commitment.
2. Building sectors included in the commitment (e.g., public buildings, schools, social housing, commercial, institutional, domestic).
3. City/state/regional department or individual leading the commitment (e.g., coordination, collaboration, reporting).
4. Local/state/national government entities supporting the policy planning, development, implementation and tracking process.
5. Existing city/state/regional/national building efficiency policies in place including date of adoption
   a. Government leadership (e.g., public building retrofit programs, green building construction requirements)
   b. Codes and regulations (e.g., building codes, appliance standards, renovation requirements)
   c. Demand creation (e.g., benchmarking and disclosure laws, financial incentives)
   d. Utility programs (e.g., public benefit programs, energy efficiency resource standards)
   e. Financial programs (e.g., energy performance contracting, on-bill/property tax payments, revolving loans)
   f. Other policies (e.g., zoning and development controls)
6. Existing public goals for energy efficiency improvement, including building sector specific goals.
7. Existing support from regional development banks and other public/private international financial institutions.
8. Preliminary (non-binding) building energy efficiency improvement goal (e.g., doubling rate by 2030, reducing energy intensity by 50%, doubling energy productivity).

The following additional information is required for announcement of the building efficiency commitment at COP21 in Paris.

9. Public building energy efficiency improvement goal for 2030 (e.g., doubling rate by 2030, reducing energy intensity by 50%, doubling energy productivity) and interim targets for 2020 and 2025.
10. Baseline building energy efficiency rate of improvement and details on how it is measured and tracked.
11. Expected incremental benefits from accelerator participation (e.g., carbon, job creation, cost savings)
12. Timeline for developing and implementing a building energy efficiency policy roadmap.
13. Planned city/state/regional/national building efficiency policies including target dates of adoption.
14. Planned stakeholder involvement in policy development (e.g., public sector, private sector, civil society) including policy planning, development, implementation and tracking.
15. Desired financial assistance to support policy roadmap development and implementation.

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