



# The Insider

National Elevator Industry, Inc.

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## Global Impact of Sustainability on the Building Transportation Industry

*The [previous edition](#) of The Insider – our first in a three part series devoted to the topic of sustainability in the building transportation industry – discussed the important role elevators and escalators play in reducing the overall energy consumption of a building. As we continue this discussion, this edition explores the state of sustainability codes globally and the importance of harmonizing these codes worldwide in order to encourage energy efficiency.*



Contemporary communication tools have resulted in the accelerated transmittal of knowledge, information and ideas worldwide. This means trends in new products, processes and themes are spreading at unprecedented rates. With all this available information, comes a higher level of transparency and an increased focus on sustainability and environmental responsibility.

Individual countries and regions acting in a vacuum, out of sync with global building codes, will only delay progress on the path to international codes harmonization and truly sustainable urban development. However, extraordinary change can occur with a unified worldwide building transportation community supporting a consistent and effective methodology for evaluating energy efficiency and performance.

To this end, the building transportation industry has taken action in recent years toward sustainable urban development. Manufacturers have worked hard in the innovation of high efficiency motors, the phasing out of geared elevators, reducing the relative numbers of new hydraulic elevators, the development of effective regenerative drives and the implementation of energy efficient dispatch systems. This coincides with significant improvements in manufacturing efficiencies and the phasing out of materials of concern in production. Some of these factories have emerged in countries such as China, despite very little government impetus, demonstrating a genuine industry movement supporting sustainable urban development.

On an international level, several major government-led initiatives have taken place in the last two decades. The goal is to encourage the development and adoption of green technology to reduce energy consumption, limit greenhouse gas emissions, and reduce carbon footprints. Yet, the consistent lack of congruence and international harmonization often results in a confusing code environment and presents companies with a different set of rules for every region.

One early initiative was the United Nations 1992 Conference on Environment and

Development (UNCED), which took on the risks to public health and the environment caused by toxic materials, hazardous wastes and other materials of concern. These materials include base and heavy metals, certain cleaning materials, refrigerants, lubricating materials, insulating materials, paints, etc.

Subsequently, the United Nations Framework Convention on Climate Change in 1994, the Kyoto Protocol of the late 1990s and today's Durban Climate Change Conference put tremendous political pressure on countries to sign and comply with UN accords. These accords are intended to develop a global response to curb energy use and greenhouse gas emissions. Separately, government action in the European Union resulted in several directives to reduce energy consumption and the use of hazardous substances while promoting green construction and sustainable development.

Thanks to these directives and similar actions through legislation and incentives, different energy certification methodologies have emerged in various parts of the world. And while some of these certifications have encouraged the adoption of sustainable building practices worldwide (BREEAM developed in the UK, CASBEE developed in Japan, and LEED developed in the U.S.), no comprehensive, international policy has emerged.

Government action and incentives are important. However, voluntary initiatives like the standards developed by the International Organization for Standardization (ISO) and the International Electro-technical Commission (IEC) are perhaps the most effective way to influence sustainable urban development.



In the building transportation industry, a set of ISO standards is being developed for energy measurement and product classification. By instituting a consistent, comprehensive methodology for measuring energy consumption, effective comparisons can be made. This will enable a realistic and equitable classification system to judge energy efficiency performance. In an effort to further harmonize these standards worldwide, *NEII*® has taken the lead by working in close association with ISO to develop a uniform set of standards for the measurement of energy consumption and the classification of elevators according to energy consumption criteria. These standards will ultimately be a driver towards improved energy efficiency.

*NEII* is a leading advocate of the building transportation industry's commitment to sustainable development. The next edition of *The Insider* will focus on the impact of sustainability in North America.

Have a comment or question for the experts? Want to submit a topic for a future issue of the newsletter? Send us your thoughts at [theinsider@NEII.org](mailto:theinsider@NEII.org) to keep the conversation going!



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