GREEN BUILDING CITY MARKET BRIEF

JAKARTA

A CITY-WIDE MOVEMENT
Jakarta’s green building initiatives have drawn the attention of the international community thanks to their audacity and ambition. The city’s brand-new Green Building Code, which sets 7 key points as the standard for buildings exceeding certain floor areas, is an unparalleled set of government requirements that will transform the construction landscape with the potential to reduce CO₂ emissions from buildings by approximately 140 million tons annually.¹

LEADING BY EXAMPLE
Complementing the bold Green Building Code is an array of policies, partnerships, and initiatives which aim to transform the local green building landscape. Vision 25/25 includes plans to increase the use of renewable energy to 25% by 2025 from the current 4%. Green Building Council Indonesia has just launched GREENSHIP, the country’s first green building certification system; and in April 2013, the Jakarta Building Supervision and Regulatory Agency (JBSRA) made green building standards mandatory for all new high-rise buildings.²

AFFORDABLE HOUSING
Nationwide, the household sector consumes about 11% of total energy. Green building regulations seek to reduce energy use in homes by 20% with only marginal increases in construction costs. A recent sensitivity analysis found that an energy savings of more than 30-40% can be achieved by simple measures, and Jakarta seeks to take advantage of these efficiencies.

GREEN SCHOOLS
The Home and School Energy Champion 2012 competition challenged students across the country to make behavioral changes to energy consumption. It promoted the use of metrics through monthly energy intensity updates from the participants.³

CITY EMISSIONS TARGET:
Jakarta aims to reduce emissions by 30% by 2030 compared with projected business-as-usual levels from 2005.

CITY DETAILS
Population 9.2 million
Land Area (km²) 662
Gross Domestic Product (in USD billions) 70.2
Average Walk Score⁴ 89/100
Annual Rainfall (mm/year) 2,095
Climate Action Plan No

BUILDING PERFORMANCE EMISSIONS
City-wide Emissions (metric tons CO₂e) 436,860,000
% of Emissions from the Building Sector --
Municipal Emissions (metric tons CO₂e) --

MEMBERSHIP AND PROFESSIONALS
LEED Credentialed Professionals (Indonesia)¹⁶ 16

PROJECT BREAKDOWN

2 LEED Certified Projects (Jakarta)
11 LEED Registered Projects (Jakarta)
7 LEED Certified Projects (Indonesia)
24 LEED Registered Projects (Indonesia)

MAYORAL POWERS

This graph depicts the level of control or influence a Mayor has with respect to the assets under the city’s jurisdiction. Powers are assessed by four factors (ownership and control, ability to set and enforce regulations, control over infrastructure budgets, and capacity to set vision), and covers the city-wide geographic area.

PRIVATE BUILDINGS
NO DATA LIMITED PARTIAL STRONG

PUBLIC BUILDINGS
NO DATA LIMITED PARTIAL STRONG

CITY-LEVEL POLICIES PRESENT

Green Building Codes ✔
Energy Benchmarking and Data Transparency ✗
Green Municipal Buildings ✗
New/Existing Commercial Building Incentives ✗
New/Existing Residential Building Incentives ✗
Green Schools ✔
Neighborhood-Scale Sustainability ✗

INDONESIA

Green Building Codes
Energy Benchmarking and Data Transparency
Green Municipal Buildings
New/Existing Commercial Building Incentives
New/Existing Residential Building Incentives
Green Schools
Neighborhood-Scale Sustainability

WORLD GREEN BUILDING COUNCIL

GREENSHIP

Graph depicts the distribution of LEED certified projects in Indonesia
POLICY SPOTLIGHT:
Jakarta Regulations:

- The Jakarta Green Building Code requires emissions reductions through various measures across a plethora of building sizes, and is mandated in all government-owned structures.
- Government Regulation No. 70/2009 on Energy Conservation requires buildings whose annual energy consumption is equal to or greater than 6,000 tons of oil equivalent (TOE) to adhere to defined standards and implement appointed procedures.

BUILDING MONITORING
Nationally, the Energy Efficient Buildings Program works with the Indonesian National Standard (SNI) for Energy Efficient Buildings to develop an environmentally-responsible building code across the following four key areas: building envelope, air ventilation, lighting, and audit procedures.

Furthermore, the Ministry of Mineral Resources is establishing an award for Energy Saving and Energy efficiency for buildings that have applied energy saving schemes. This award started in 2012; the winner automatically becomes a nominee for the Association of South-East Asian Nations Energy Award.

GREEN CODES
The prominent city code for Jakarta is the brand-new Green Building Code, which sets 7 key points as the standard for buildings exceeding 10,000 square meters (for educational facilities), 20,000 square meters (for hotels and hospital), and 50,000 square meters (for offices, malls, and apartments). The code covers standards such as lighting systems, ventilation and air quality, and water efficiency (the city receives more than 2,090 mm or rain each year). In the city’s goal to become a world leader on climate change, Jakarta’s Green Building Code has a potential carbon reduction of 3 million metric tons per year by 2020.

RETRIFTS
The Partnership Program on Energy Conservation is a government-funded energy audit program available to industries and commercial buildings who display an interest in retrofitting existing structures. Furthermore, Government Regulation No. 70/2009 on Energy Conservation requires buildings whose annual energy consumption is equal to or greater than 6,000 TOE to appoint energy managers, develop energy conservation programs, implement recommendations from energy audits, and report the implementation of energy measures each year.

SUSTAINABLE COMMUNITIES
Through its many initiatives, Jakarta maintains plans to reduce current energy demands by 33.85% compared to business-as-usual levels by 2025.

PROJECT SPOTLIGHT:
Ching-Luh NIKE Factory Office Building
The Nike Factory office building in Jakarta achieved Gold certification under the LEED for New Construction rating system in January 2011. The building’s design resulted in a 50% reduction in potable landscape water use and a 20% reduction in indoor water use, both against a modeled baseline. The structure achieved a 28% improvement on a modeled baseline for building energy performance.

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REFERENCES
4. Walk Score measures the walkability of a city by measuring community connectivity and pedestrian friendliness. Walk Score’s methodology is available at http://walkscore.com/methodology.shtml
6. LEED Professionals and Project Figures were retrieved on 6 January 2015.