

Promoting Green Jobs in the Building and Construction Sector

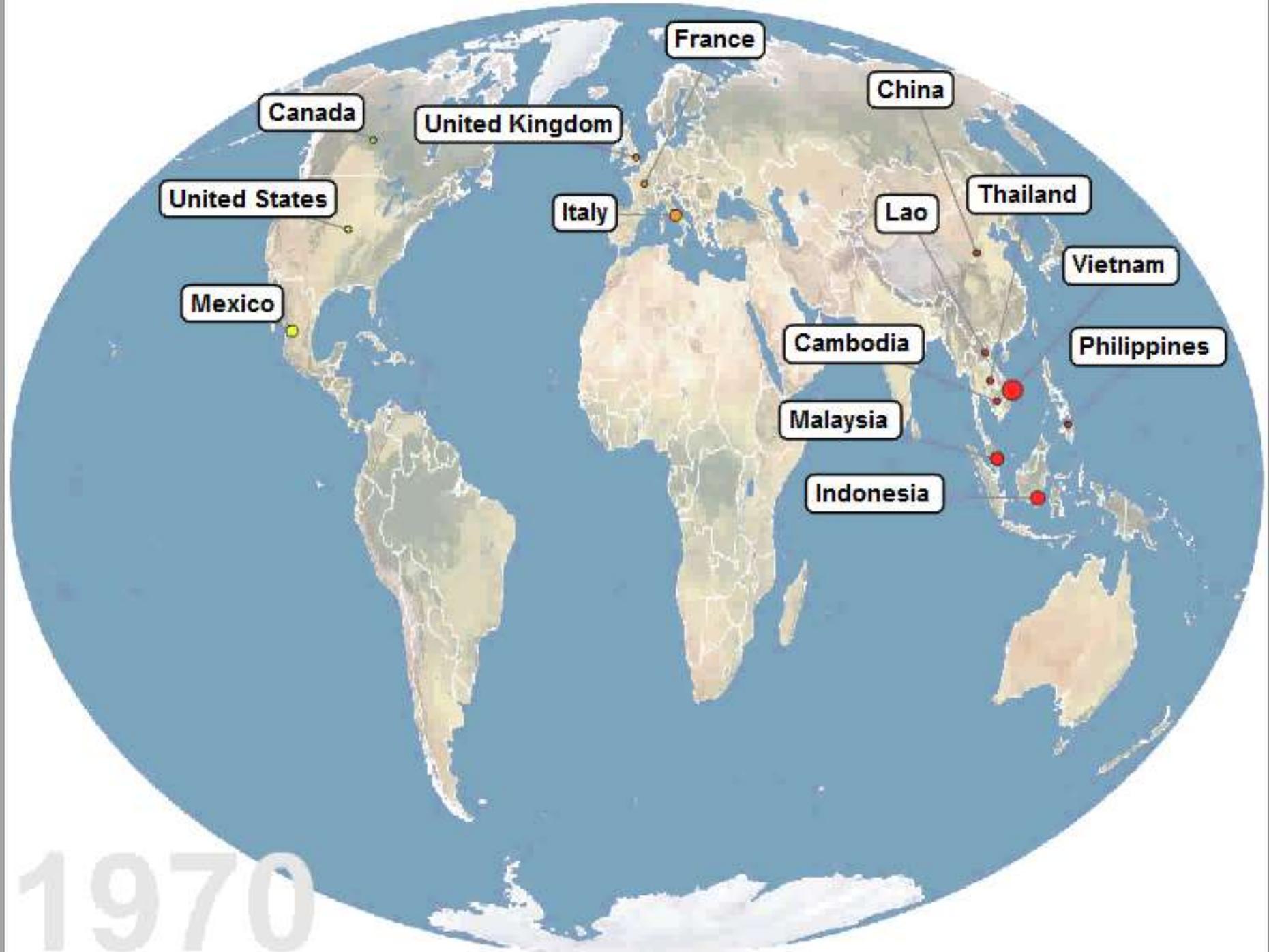
BUILDING FOR ECOLOGICALLY RESPONSIVE DESIGN EXCELLENCE

Green Jobs Conference: "The Green Shift of Technology, Skills and Bottomline in Basic Industries"

SMX Convention Center, Pasay City

CHRISTOPHER CRUZ DE LA CRUZ
Philippine Green Building Council







Source: Reuters

SUSTAINABILITY

**“MEETING THE NEEDS OF
THE PRESENT WITHOUT
COMPROMISING THE ABILITY
OF FUTURE GENERATIONS TO
MEET THEIR OWN NEEDS”**

**- “OUR COMMON
FUTURE”, BRUNDTLAND
COMMISSION**

- *“The fastest growing regional green building market is Asia, where the population of firms largely dedicated to green building is expected to jump from 36% today to 73% in 2013.”*

– Smart Market Report, World Green Building Council

With the positive growth in green building present in the country, there will be increased need for training in the following areas:

- utilization of green building technologies for building professionals;
- effective environmental communication for marketing professionals;
- crafting of effective green building policy for legislators;
- skills upgrade for construction workers;
- green building certification (particularly BERDE).

Philippine Green Building Council. "Research Notes - Case Study on Occupational and Skills Needs in the Green Building Sector: Philippines, Tabulated Responses from Associations."

GLOBAL IMPACT

Economic

- **75%** employed in developing countries,
- **90%** employed in micro firms,
- **10%** of global **Gross Domestic Product**.

Environmental

- **30 to 40%** of **greenhouse gas (GHG) emission**,
- 30 to 40%** of **solid waste generation**,
- 25 to 40%** of **total energy use**.

Person *of the Year*

TIME

Facebook's
Mark
Zuckerberg

PHOTOGRAPH BY [unreadable]



- *“The initial uptake of BERDE will be driven by large developers. It is expected that small and medium sized industry players will soon follow. Government will soon pursue green building by developing more stringent standards, policy and hopefully provide tax breaks”*

-CECOPHIL

- *“The challenge in the near term is to ensure the viability of the BERDE Certification Process is the assurance that there will be enough qualified and competent BERDE Professionals and Assessors in the market”*

-TUV Rheinland Philippines

Funding Triage

- (1) funding basic needs (healthcare, education, public housing, poverty alleviation);
- (2) funding activities that promote economic growth and an environment that will stimulate job creation to support a growing population; and
- (3) providing funds that will allow the country to adapt to the negative impacts of climate change.

Further, as urban centers expand, the demand for more energy, waste and water facilities continuously confront the public sector's decision makers with the challenge of raising funds for more infrastructure projects.

Green Building Challenges

- (1) high up-front costs for more efficient equipment,
- (2) lack of access to financing,
- (3) absence of energy subsidies, and
- (4) lack of full understanding of the environmental, health and other external costs.

Jobs in the Construction Sector

- (1) unskilled labor,
- (2) skilled labor (*i.e. carpenters, electrician, plumbers, etc.*),
- (3) *building professionals (i.e. architects, engineers, project managers, building managers),*
- (4) *manufacturing professionals (i.e. material specialists, fabricators, etc.)*
- (5) *business-oriented professionals (i.e. finance, banking, etc.),*
- (6) *certification specialists (i.e. certification consultants, assessors).*

Green Jobs in Green Building

- Architecture
- Engineering
- Energy Managers
- Marketing Professionals
- Education
- Certification Professionals

Skills Response

- Training to facilitate shifting of jobs from:
 - White collar to green collar jobs; and
 - Blue collar to green collar jobs
- Upgrading and realignment of existing training systems.

Training Challenges

- (1) Most of the trainings are only available in Metro-Manila and not available in other regions of the country,
- (2) Skilled and semi-skilled workers still lack technical know-how on more complex green building related work (i.e. solar technology, HVAC, energy management etc.),
- (3) lack of access to trainings due to costs associated with high quality trainings,
- (4) lack of government support.

Appropriate Skills Training Responses for Tradesmen

- (1) development of strategic skills,
- (2) increase environmental awareness and sustainable development,
- (3) coordination, management and business skills, and
- (4) innovation.

A significant number of skilled and semi-skilled workers are self-trained, with knowledge on tasks learned largely from experience. Expanding the trained pool of skilled and semi-skilled workers is needed. An increasing amount of the local workforce are now working abroad and there is a need to continuously train new workers, especially with expertise in the above mentioned soft/generic skills.

Philippine Green Building Council

- An alliance of leaders from over 250 corporations;
- Builds partnerships across the property sector;
- Develops programs on sustainability with partners from government, academe and civic and cause oriented groups;
- Promotes and develops investment grade research to facilitate green building in industry.



- The platform for meaningful dialogue on green building across 80 countries;
- With networks in Asia-Pacific, Americas and the Caribbean, Europe and Africa;
- Builds on the expertise of its members and partners all over the world.

green building council australia



GREEN BUILDING COUNCIL FINLAND



MALAYSIA GREEN BUILDING CONFEDERATION



HKGBC 香港綠色建築議會



France GBC



المجلس السعودي للمباني الخضراء
Saudi Green Building Council



GREEN BUILDING COUNCIL DENMARK



GREEN BUILDING COUNCIL DOMINICAN REPUBLIC



Indian Green Building Council



سوق قطر للمباني الخضراء
QATAR GREEN BUILDING COI



台灣綠建築發展協會
Taiwan Green Building Council



GREEN BUILDING COUNCIL PANAMA



JORDAN GBC
المجلس الأردني للمباني الخضراء
Jordan Green Building Council



GREEN BUILDING COUNCIL OF SOUTH AFRICA



UK GREEN BUILDING COUNCIL



VGBC



CANADA GREEN BUILDING COUNCIL
CONSEIL DU BÂTIMENT DURABLE DU CANADA



GREEN BUILDING COUNCIL BRASIL

GREEN BUILDING COUNCIL BRASIL
CONSTRUINDO UM FUTURO SUSTENTÁVEL



ROMANIA GREEN BUILDING COUNCIL



SWEDEN GREEN BUILDING COUNCIL



Dutch Green Building Council



מלגות ישראליה לבנייה ירוקה
ILGBC



SERBIA GREEN BUILDING COUNCIL
Savet zelene gradnje Srbije



GREEN BUILDING COUNCIL ITALIA

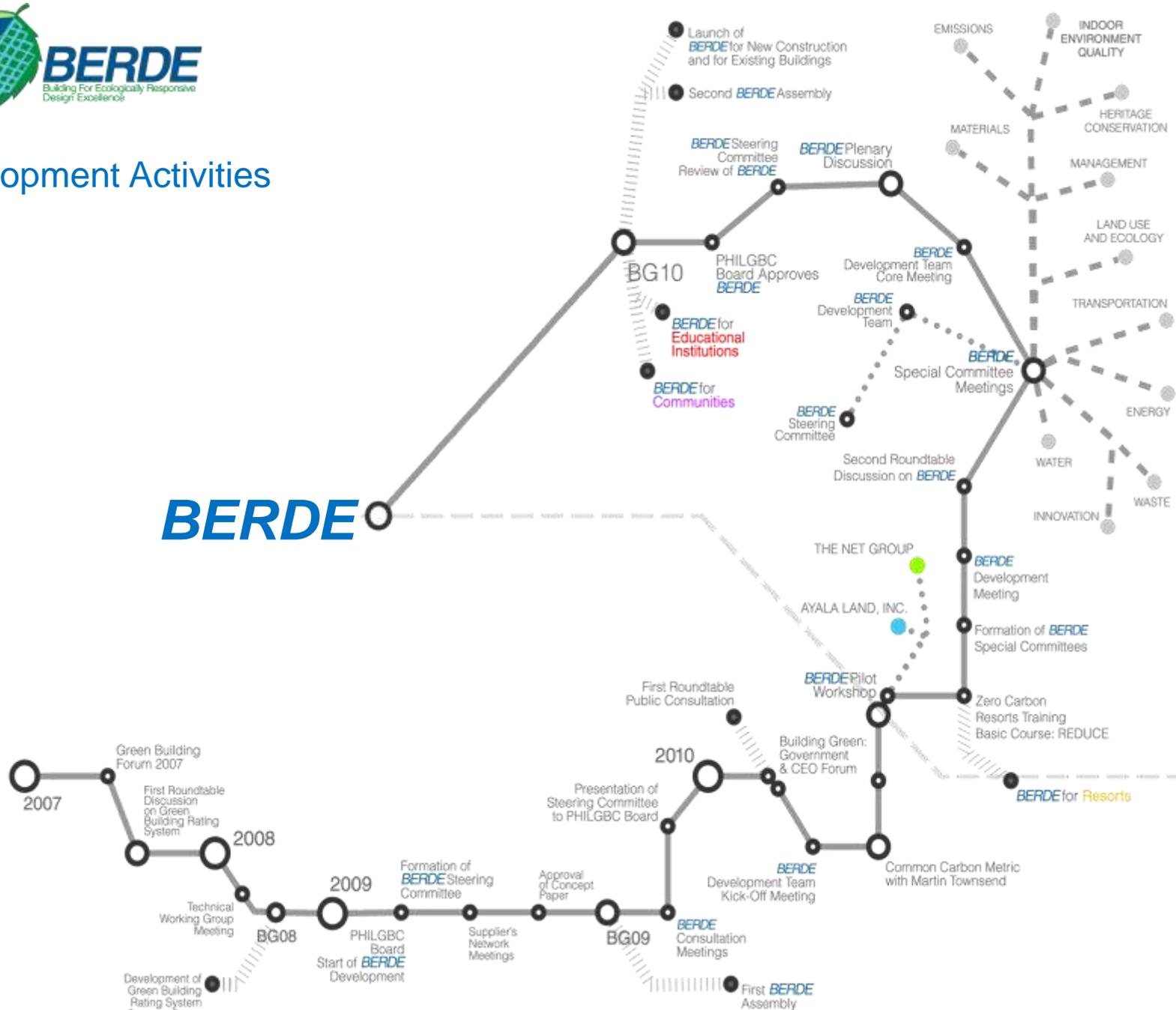


U.S. GREEN BUILDING COUNCIL



BERDE
Building For Ecologically Responsive
Design Excellence

BERDE Development Activities



BERDE

Building for Ecologically Responsive Design Excellence

- Consensus driven,
- Multisectoral,
- Multidisciplinary,
- Government supported,
- Industry backed!

Green Building Rating Systems Around the World

LEED

ESTIDAMA

Green Mark

BREEAM

Green Star

GreenShip

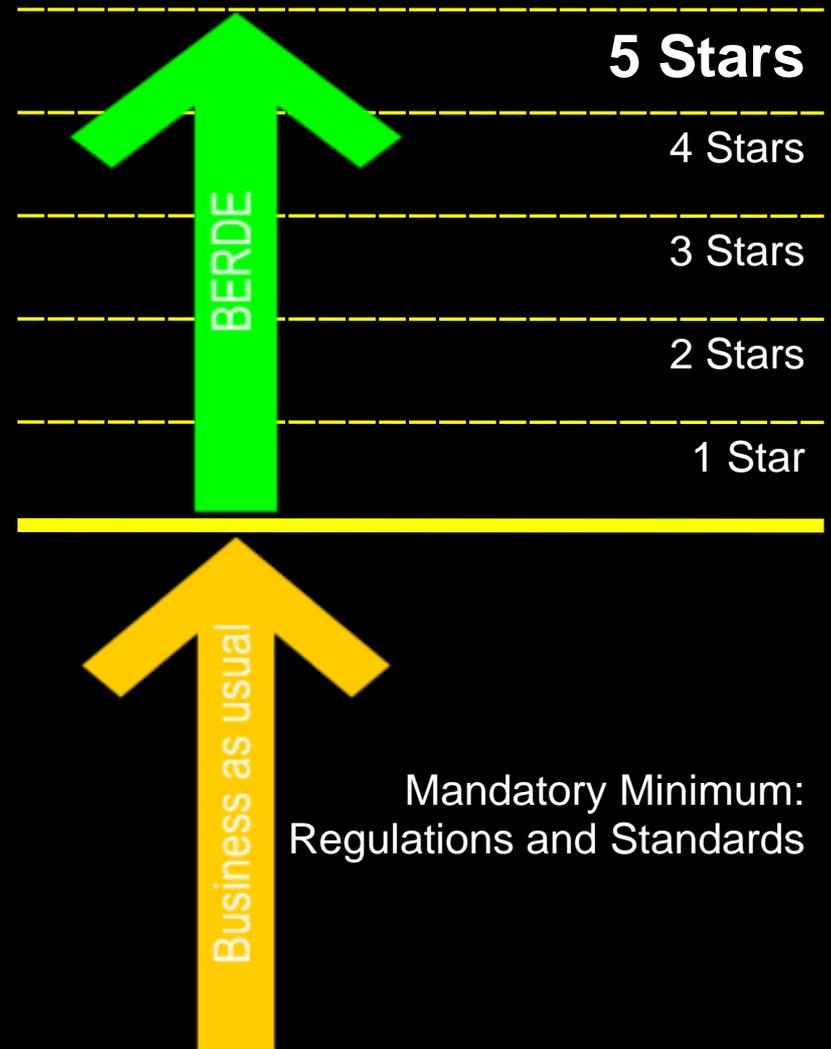
HQE

CASBEE

SB Tool

Lotus

Green Building Index



BERDE

Building for Ecologically Responsive Design Excellence



Project Name:
NET LIMA

Location:
5th Avenue, Corner 26th Street, Bonifacio Global City, Taguig

Owner:
20-12 Property Holdings, Inc. (THE NET GROUP)

Project Manager:
JCL International, Inc.

International Architect:
Oppenheim Architecture + Design

Concept Architects:
Leandro V. Locsin Partners
C/S Design Consultancy

Architect of Record:
L.A. Poco Architects and Associates

Interior Design:
C/S Design Consultancy

Engineering:
Meinhardt Philippines, Inc.
LS Dy and Associates
Meinhardt Facade Technology HK Ltd.
WindTech Consultants Pty Ltd.

Structural Contractor:
Monolith Construction & Development Corp.



- 1. AYALA TOWER ONE**
6767 AYALA AVE., MAKATI CITY
- 2. BONIFACIO E-SERVICES BUILDING**
31ST ST., COR. RIZAL DRIVE, BONIFACIO
GLOBAL CITY, TAGUIG CITY
- 3. GREENBELT MALL**
GREENBELT COMMERCIAL CENTER, SAN
LORENZO VILLAGE, MAKATI CITY
- 4. MARQUEE MALL**
FRANCISCO G. NEPO AVE., ANGELES CITY
- 5. ONE EVOTECH**
NUVALI, STA. ROSA, LAGUNA
- 6. U.P. AYALA TECHNO HUB**
UP CAMPUS, COMMONWEALTH AVE.,
QUEZON CITY
- 7. NUVALI EVOLIVING**
NUVALI STA. ROSA, LAGUNA
- 8. SOLARIS ONE**
DELA ROSA ST., LEGASPI VILLAGE, MAKATI
CITY

Why do we need BERDE?

- To exhibit environmental stewardship;
- It enables the public to easily identify green buildings;
- A third party certification, monitoring and verification system enables all market players to benchmark in a single system, thus leveling the playing field.

Thank you

CHRISTOPHER CRUZ DE LA CRUZ
PHILIPPINE GREEN BUILDING COUNCIL

BERDE

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[HTTP://PHILGBC.ORG](http://PHILGBC.ORG)