



Republic of the Philippines
(Republic Act No. 7611)

PALAWAN COUNCIL FOR SUSTAINABLE DEVELOPMENT STAFF

Excerpts from the Minutes of the 246th PCSD Regular Meeting
Governor's Conference Room
2nd Floor, Provincial Capitol Bldg.
Puerto Princesa City
September 14, 2018

Present:

- | | |
|---|------------|
| 1. Gov. Jose Ch. Alvarez, Provincial Governor, | Chair |
| 2. Vice Gov. Victorino Dennis M. Socrates, Sangguniang Panlalawigan | Vice Chair |
| 3. Dir. Nelson P. Devanadera, Executive Director, PCSDS | Secretary |
| 4. Usec. Rodolfo Garcia, Undersecretary, Chief of Staff, DENR | Member |
| 5. Hon. Lucena D. Demaala, Pres., League of Municipalities | Member |
| 6. Atty. Jansen Jontila, NGO Representative | Member |
| 7. Mr. Bobby Castro, Private Sector Representative | Member |
| 8. Hon. Dennis M. Sabando, President, Liga ng mga Barangay | Member |
| 9. LTGEN Rozzano D. Briguez, Commander, WESCOM | Member |

Represented:

- | | |
|--|--------|
| 10. Usec. Ariel T. Cayanan, Undersecretary, DA | Member |
| Represented by Mila Cacal | |

Absent:

- | | |
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| 11. Hon. Lucilo R. Bayron, Mayor, Puerto Princesa City | Member |
| 12. DDG Adoracion M. Navarro, Deputy Director General, NEDA | Member |

RESOLUTION NO. 18-642

"ADOPTING THE ZERO CARBON AND GREEN BUILDING POLICY FOR PALAWAN AND PUERTO PRINCESA CITY"

WHEREAS, the Palawan Council for Sustainable Development Staff (PCSDS) was created by virtue of the Strategic Environmental Plan (SEP) for Palawan Act (RA 7611) charged with the governance, implementation and policy direction to achieve its goals of attaining sustainable development for the Province of Palawan;

WHEREAS, the PCSD is mandated under RA 7611 to formulate and implement plans, programs and projects to preserve and enhance the environment, and at the same time pursue the socio-economic development goals of the country;

WHEREAS, in 2010, the PCSDS, in partnership with University of Vienna's Centre for Appropriate Technology-GrAT, implemented the Zero Carbon Resorts (ZCR) Project, a 4-

Vision: Palawan, an innovative and dynamic global center of sustainable development

Mission: PCSDS as the driver of environmental conservation and inclusive development in Palawan, a biosphere reserve and science-for-sustainability site, guided by the Strategic Environmental Plan

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year project funded by the European Union's SWITCH Asia program intended to enable SME in the accommodation sector of the tourism industry, such as hotels and resorts, to provide their services in an energy efficient, cost effective and sustainable way by using locally available, carbon neutral resources and green technologies;

WHEREAS, on February 07, 2018, to culminate the efforts of the ZCR Project, a national policy forum was conducted for the purpose of strengthening the institutional capacity of tourism stakeholders, policymakers and LGUs to formulate and implement relevant policies on sustainable consumption and production under the Work Package 5 of the ZCR Project: *“Strengthening Institutional Capacity to Formulate and Implement Policy on SCP for Tourism Sector in Both Countries,”* Thailand and Philippines;

WHEREAS, a Zero Carbon and Green Building Policy was drafted by the PCSDS to expand the coverage of the criteria imposed on members of the ZCR Project to include residential, government, and commercial buildings outside the accommodation sector of the tourism industry, in accordance with the Philippine Green Building Code (GB Code), a Referral Code of the National Building Code of the Philippines (P.D. 1096), approved by the DPWH in 2015;

WHEREAS, building upon the gains of the two phases of ZCR Projects from 2009 to 2014, the PCSD shall pursue the implementation of the 3R technologies towards a carbon neutral operation to include other sectors beyond the tourism industry. It shall continue the replication of ZCR strategies in the province including the green certification and provide the enabling policy environment for easy compliance by the stakeholders;

NOW THEREFORE, forgoing premises considered, be it resolved to adopt as it is hereby resolved and adopted the following Zero Carbon and Green Building Policy in the province of Palawan:

CHAPTER I SCOPE AND DEFINITION OF TERMS

Section 1. Scope. – Zero Carbon Building aims at improving building performance in the following areas: Building Infrastructure, Energy Efficiency, Water Efficiency, Solid Waste and Waste Management, Chemical and Fuel Management, Environmental Protection and Cultural Preservation.

Section 2. Coverage and Application. These guidelines shall apply to all covered buildings, being or proposed to be constructed in the province of Palawan and shall serve as guide for all government instrumentalities mandated to issue permits, licenses, contracts, or agreements and other similar instruments. Likewise, the same shall serve as guide to the general public; provided, the regulation applies to the following;

- 2.1 New buildings, regardless of floor area, in the following categories
 - 2.1.1 Commercial buildings;
 - 2.1.2 Tourism accommodations;
 - 2.1.3 Tourism related and associated establishments;
 - 2.1.4 Educational buildings;

- 2.1.5 Government buildings and offices;
- 2.1.6 Hospitals;
- 2.1.7 Public Markets;
- 2.1.8 Industrial and commercial warehouses;
- 2.1.9 Slaughterhouses
- 2.2 Residential buildings with total floor area greater than 1,000 sq. m.;
- 2.3 Modification/renovation of existing buildings covering any of the scope of works, however, only specific zero carbon measures involved in such renovation/modification shall be required to be consistent with this policy:
 - 2.3.1 Any of the electrical works and water supply;
 - 2.3.2 Construction of additional floor area or renovation of floor area of at least 500 sq.m.

Section 3. Definition of Terms.

- 3.1 *Building Infrastructure* – refers to any physical structure or facility as well as the adoption of design, construction and operation practices that minimize the impact of buildings on ecosystems and water & energy resources.
- 3.2 *Chemical and Fuel Management* – refers to the adoption of technology, strategy, methods, and controls to responsibly manage the storage and handling of chemicals and fuels.
- 3.3 *Covered buildings*:
 - 3.3.1 Residential Buildings – refers to any building/structure for exclusive use as multiple/single family dwellings
 - 3.3.2 Commercial Buildings – refers to any building/structure used for commercial purposes. Types can include office buildings, retail, convenience store, and shopping malls.
 - 3.3.3 Educational Buildings – refers to any building designed for various activities in a primary, secondary, or higher educational system.
 - 3.3.4 Government Buildings and offices
 - 3.3.5 *Tourism Accommodations* – refers to accommodation establishments including the following: hotel, resort, tourist inn, apartelle, pension house, bed and breakfast, lodging house, and motorist hotel (motel).
 - 3.3.6 Other buildings (not classified above) refers to any structure built for the support, shelter or enclosure of persons, animals, personal property or property of any kind.
- 3.4 *Energy Efficiency* – refers to the adoption of efficient practices, designs, methods and technology that reduce energy consumption resulting in cost savings as well as reduced consumption of non-renewable energy.
- 3.5 *Environmental and Cultural Preservation* – refers to the adoption of design, construction and operation practices that take into consideration the improvement of the occupant’s health, productivity, safety and quality of life, including the promotion of local culture of the community.
- 3.6 *Modification/Renovation* – refers to the rehabilitation or expansion of an existing building and covers any of the following scope of works:
 - 3.6.1 Any of the electrical works and water supply.
 - 3.6.2 Construction of additional floor area or renovation of floor area of at least 500 sq.m.

- 3.7 *Proponent* – refers to the owner, developer, or administrator of a new building or an existing building intended as any of the covered buildings that is subject of evaluation and rating.
- 3.8 *Solid Waste and Waste Management* – refers to the adoption of efficient waste management practices and technology and use of renewable, organic and non-hazardous materials or resources.
- 3.9 *Water Efficiency* – refers to the adoption of efficient practices, design, materials, fixtures, equipment and methods that reduce water consumption resulting in cost savings as well as reduced consumption of potable water and maximize use thru re-use and re-cycling.
- 3.10 *Zero Carbon and Green Building Preliminary Certificate* – refers to the document issued by the PCSD certifying that based on the representations of the proponent and/or preparer, the proposed building design of the proponent is in accordance with this policy.
- 3.11 *Zero Carbon and Green Building Compliance Certificate* - refers to the document issued by the PCSD certifying that in accordance with the Preliminary Certificate, as reviewed, evaluated and validated, the building was constructed in accordance with prior approved building design under this policy.
- 3.12 *Zero Carbon and Green Building* – refers to an integrated whole-building approach to the planning, design, construction, operation, and maintenance of buildings and their surrounding landscape that help mitigate the environmental, economic and social impacts of buildings through the following: site conservation and sustainable planning, water conservation and efficiency, energy efficiency and renewable energy, conservation of materials and resources, and improved environmental quality and human health.

CHAPTER II GENERAL PROVISIONS AND APPLICATION

Section 4. General Provision. – A proponent (i.e. owner, developer) of an existing building or developer of a new building intended as any building in Palawan covered by these guidelines, unless granted exemption under Section 11, shall secure the following certificates:

- 4.1 Zero Carbon and Green Building Preliminary Certificate; and
- 4.2 Zero Carbon and Green Building Compliance Certificate.

Section 5. Zero Carbon and Green Building Preliminary Certificate. No Building Permit shall be issued until the proponent obtains a *Zero Carbon and Green Building Preliminary Certificate*. The issuance of the Zero Carbon and Green Building Preliminary Certificate shall be subject to the satisfactory findings that the project drawings and specifications have complied with the provisions of this policy.

For proposed new building or if it involves existing buildings or structures intended as any of the covered buildings, the proponent shall apply in writing for issuance of the preliminary certificate. The application shall contain:

- 5.1 A statement that the proponent plans to construct/retrofit a facility;
- 5.2 Pre-Compliance Checklist of Requirements;
- 5.3 A detailed description of the proposed facility and its operation and information showing that the facility will operate as represented in the application;

5.4 The estimated start and finish dates of the construction/retrofitting of the facility. The application shall be checked whether the program, plan, design or specifications submitted are complete in information. If the construction/retrofitting does not comply with the provisions of this policy, an Order to comply with the provisions shall be issued.

Section 6. Zero Carbon and Green Building Compliance Certificate. No compliance certification shall be issued under this Section unless the facility was constructed under the approved Preliminary Certificate under Section 5.

6.1 Upon completion of the proposed construction or retrofitting project, the proponent shall apply in writing for issuance of the Zero Carbon and Green Building Compliance Certificate: The application shall contain:

- 6.1.1 Duly accomplished application form and Compliance Checklist of Requirements;
- 6.1.2 A statement that the conditions of the issued Zero Carbon and Green Building Preliminary Certificate have been complied with; and
- 6.1.3 A statement that the facility is in operation.

6.2 The application shall be evaluated on whether the building has complied with the mandatory minimum criteria under Section 14. An evaluation report in this regard shall be issued which shall contain the results of the evaluation process, and the recommended terms and conditions. The evaluation report shall be submitted for endorsement or denial of the application.

6.3 The issuance of the Zero Carbon and Green Building Preliminary Certificate shall be subject to the satisfactory finding that the building, as constructed, have complied with the provisions of this policy.

Section 7. SEP Clearance. No SEP Clearance shall be issued to buildings covered by this policy unless the facility was constructed under an approved Preliminary Certificate issued under Sections 5.

Section 8. Reportorial Requirements. The proponent shall submit to the PCSD an annual report, commencing one year from the issuance of the occupancy permit. The report shall contain the following information (as may be applicable):

- 8.1 Monthly Energy consumption (kwh) and bill or equivalent document certified by the concerned utility company;
- 8.2 Monthly Water consumption (cu.m.) and bill or equivalent document certified by the concerned utility company;
- 8.3 Fuel consumption (Liters) used for transportation, power generation, cooking, drying, water heating, and others.
- 8.4 Waste generation (Kg)
- 8.5 Occupancy rate;
- 8.6 Other relevant data necessary for building profiling such as: chemical management plan, chemical consumption (liters for liquid, Kg for solid) and wastewater generation (cu.m.).

Section 9: Amendatory provision in case of revision while in progress. Any amendments on the project drawings and specifications of the proposed building made

subsequent to the issuance of the Zero Carbon and Green Building Preliminary Certificate shall be submitted to the PCSD for proper evaluation and corresponding approval.

9.1 When the proposed amendment after evaluation is found compliant with the provisions under this policy, an amended Preliminary Certificate based on the new building design shall be issued; and

9.2 When after evaluation the proposed amendment is found not compliant with the provisions under this policy, the PCSD shall issue an order revoking the Preliminary Certificate.

Section 10. Revocation of Certificate. The PCSD may order the revocation of the compliance certificate issued under Section 6 of this policy, after due notice and hearing, if it finds that:

10.1 The certificate was obtained by fraud or misrepresentation.

10.2 The holder of the certificate has failed to comply with at least 20% of the submitted plans, specifications and procedures which were made as basis in the issuance of the Zero Carbon and Green Building Preliminary Certificate.

Section 11. Exemption. The provisions of this policy may be waived in favor of the properties, facilities or structures; provided, the exemption shall not be used to circumvent any safety, health or environmental requirements.

11.1 The issuing body may exempt the certification of a tourism accommodation in accordance with this policy if it is deemed that the cost of compliance sufficiently exceeds the life-cycle cost savings; Provided, the life cycle cost of a building with a service life may be defined as “the total cost of ownership of the item over the service life of the item”.

11.2 The proponent, whose building project is given exemption, shall follow the provisions of Section 12 and comply with the provisions of the Zero Carbon and Green Building Rating System to the maximum extent possible such that the cost of compliance does not sufficiently exceed the building’s life-cycle cost savings.

CHAPTER III ZERO CARBON AND GREEN BUILDING COMPLIANCE

Section 12. Compliance Monitoring. The PCSD shall check with the Compliance Certificate issued to the proponent if the following have been adopted and implemented:

12.1 Use of building design, construction, and operation practices that minimize the negative impact of the building on human health and natural environment;

12.2 Use of technologies, designs, and efficient mechanisms that minimize energy consumption, including use of renewable energy as the primary source of energy;

12.3 Installation and use of fixtures, designs, and efficient practices that reduce water consumption, including the re-use and recycling of water for non-consumption purposes;

12.4 Management and reduction of solid waste and waste water;

12.5 Adoption of management practices that effectively reduce fuel and chemical consumption, including transportation; and

- 12.6 Implementation of measures and operation practices that improve the quality of the occupant health, productivity, and safety, and promote the conservation of the environment and the respect for the culture of the community.

Section 13. Zero Carbon and Green Building Rating System. The building shall be rated based on the documentary requirements submitted by the proponent and the corresponding certificates issued. For tourism accommodations, the PCSD shall consider using the ‘*Anahaw*’, *the Philippine Sustainable Tourism Certification*.

Section 14. Mandatory Minimum Requirements. All applicants for compliance certification must comply with the following mandatory minimum requirements; provided, no points will be given for complying with the mandatory requirements.

- 14.1 Mandatory installation and use of efficient lighting system as part of the energy efficiency plan and water-saving fixtures;
- 14.2 Mandatory installation and operation of a waste segregation facility to monitor and manage solid waste disposal in accordance with the Ecological Waste Management Act; and
- 14.3 Mandatory designation of smoking area(s) and appropriate signage in accordance with the Tobacco Regulations Act.
- 14.4 Mandatory allotment of parking space for vehicles

Section 15. Zero Carbon and Green Building Criteria. Under the Zero Carbon and Green Building Rating System, the proponent shall comply with the following criteria, in addition to the mandatory minimum requirements under Section 14. Provided, the process of certification shall begin with the initial preparation and planning and throughout the lifespan of the facility.

15.1 Building Infrastructure and Surrounding

15.1.1 General

- Use indigenous and locally made or available building material, as well as those with low solar radiation absorption rates and reflective surface.
- Incorporate natural heat sinks or thermal mass (and minimize heat-island effect) in order to establish thermal comfort.
- Orient the building, doors and windows in a way as to achieve reduction in heat gain; and using windows of low heat transmission or devices for shading such.
- Use natural ventilation and cross-ventilation for regularly occupied building spaces

15.1.2 Roof

- Use roof and/or ceiling insulation
- Use white or highly reflective paint on roof
- Use natural ventilation and cross-ventilation for roof spaces as well as proper exhaust of hot air using passive methods

15.1.3 Shading

- Use outdoor shading to reduce heat gain of the building by natural means
- Use sun and rain buffers by technical means

15.2 Power, Energy and Electricity

15.2.1 Electricity Management

- Measurement and monitoring of electricity consumption
- Share of the total energy consumption should be generated from renewable energy resources.
- Establish preventive maintenance and monitoring schedule and plan of appliances and equipment.

15.2.2 Air-Conditioning

- Use air conditioners with high energy efficiency ratio (EER) and coefficient of performance (COP), and install thermostat system.
- Implement energy efficiency practices such as: sealing or insulation of gaps and openings in air-conditioned areas; keeping out heat sources from of A/C rooms; shading and ventilating of condenser units of air conditioners, etc.

15.2.3 Lighting

- Implementation of energy-efficient practices such as: all electric light sources shall be energy-efficient LED, and installation of light occupancy/motion sensors in public areas, and photo sensor or timer for outdoor light.
- Use of natural day lighting in building design/structure.

15.2.4 Refrigeration

- Use of highly efficient refrigerators, and implementation of appropriate technologies and practices.

15.2.5 Washing And Drying

- Use of efficient washing machines and dryers, and allocation of area for sun/air drying laundry items.

15.2.6 Other Electric Appliances And Equipment

- Use of efficient stoves, TV, computers, and install individual switches for appliances, and implementation of energy-efficiency practices.

15.2.7 Ventilation

- Implement energy efficient practices

15.2.8 Pumps, Motors, Compressors (Pmc)

- Use of energy-efficient motors, pumps, inverters, and implementation of energy-efficient practices.

15.3 Water And Water Services

15.3.1 Water Management

- Measurement and monitoring of water consumption

15.3.2 Rain Water Harvesting And Grey Water Recycling

- Provision of rain water collection facility for reuse in washing, cleaning, watering, irrigation, etc.
- Provision of water treatment system or facility as indicated in section 15, item 15.5.3.2 for reuse of treated wastewater.

15.3.3 Water Heating

- Use of efficient and sustainable water heating systems, solar water heater, or co-generation system.

15.3.4 Washing

- Use energy-efficient washing machines

15.3.5 Other Water Saving Systems

- Installation of technologies and implementation of other energy and water-resource efficient practices.

15.4 **Fuel and Chemicals**

15.4.1 Fuels

- Measurement and monitoring of LPG (kg/year) consumption
- Implementation of energy and fuel-efficient practices.

15.4.2 Generator

- Use of energy-efficient generators and implementation of energy-efficient practices

15.4.3 Transportation

- Use environmentally-friendly powered vehicles

15.4.4 Chemicals Management

- Proper recording of all chemicals used or in store
- Use of more environmentally-friendly chemicals

15.4.5 Chemicals Storage And Disposal

- Plan for management of hazardous substances

15.5 **Solid Waste And Waste Management**

15.5.1 Solid Waste Management

- Inventory, monitoring and management of generated solid wastes
- Provision of areas for composting, and materials recovery facility
- Implementation plan for reduction of use of plastics

15.5.2 Solid Waste Reduction

- Upcycling or creative reuse of recyclables in building design/structure

15.5.3 Wastewater Management

- Installation of septic tanks that are compliant to standards, and establishment of an efficient septic tank management plan.
- Use of energy efficient wastewater treatment facility or natural wastewater treatment.

15.6 **Environmental Protection and Cultural Preservation**

15.6.1 Environmental Protection

- Installation in the building or establishment of environmental awareness and information materials
- Respect and protection of wildlife species
- Installation of noise pollution control.
- Use of locally-produced fruits, vegetables, flowers, ornamental plants and etc., and allotting areas for 'locavore' or farm for own use.

15.6.2 Air Quality Management (Indoor And Outdoor)

- Implementation of practices such as: installation of scrubber/filters in generator exhaust and other machinery that emit smoke; regular monitoring and maintenance of equipment and hotel facilities to ensure the air quality; and designation of specific locations of smoking and non-smoking areas.

15.6.3 Cultural Preservation

- Promotion of local culture, valuing and incorporating authentic elements of traditional and contemporary local culture in the building plan, design, and decorations while respecting the intellectual property rights of local communities.
- Contribution towards protection and conservation of historical and cultural sites in the locality.

Section 16. Zero Carbon Points. The buildings shall be rated based on its compliance with the Zero Carbon and Green Building Rating System Criteria under Section 15. The rating scheme shall also be the basis for provision of incentives to eligible tourism accommodation, whenever applicable.

CHAPTER IV INCENTIVES

Section 17. Eligibility. In order to encourage proponents to comply with the provisions of this policy, an incentive system shall be established for the benefit of proponents of Zero Carbon and Green Building or retrofitting of an old building into a Zero Carbon and Green Building; provided that at the time of application for incentives;

17.1 The mandatory minimum requirements under Section 14 have been complied; and

17.2 A valid *Preliminary Certificate* under Section 5, and a valid and subsisting *Compliance Certificate* under Section 6 have been obtained.

Section 18. Local government units shall provide incentives as may be deemed appropriate to the owners and developers whose building have complied with the provisions of this policy, such as Real Property Tax Discount on machinery and improvement installed in accordance with the Zero Carbon and Green Building Criteria.

CHAPTER V FINAL PROVISIONS

Section 19. Separability Clause. The provisions of this policy are hereby declared separable, and in the event that one or more provisions are declared unconstitutional, the validity of the other provisions shall not be affected thereby.

Section 20. Repealing Clause. All orders, circulars, memoranda and other issuances inconsistent herewith are hereby repealed and/or amended accordingly.

Section 21. Effectivity. This policy-guidelines shall take effect fifteen (15) days after publication in a newspaper of general circulation in the Province of Palawan and upon deposit to the Office of the National Administrative Register (ONAR) at the UP Law Center.

RESOLVED FURTHER, that copies of this resolution be furnished the Sangguniang Panlalawigan, all the local government units of Palawan and Puerto Princesa City and the concerned agencies for their information and guidance;

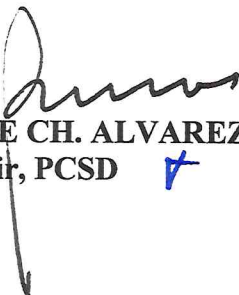
RESOLVED FINALLY, that copy of this resolution be furnished the National Administrative Registrar of the UP Law Center, Diliman, Quezon City for publication.

RESOLVED AND ADOPTED this 14th day of September 2018 at Puerto Princesa City

I hereby certify that the above-quoted resolution has been duly adopted and approved by the PCSD on the 14th day of September 2018 at Puerto Princesa City, Palawan.


NELSON P. DEVANADERA
Secretary

ATTESTED BY:


JOSE CH. ALVAREZ
Chair, PCSD