



**Philippine Heart Center  
Initiative on Green Procurement**

**GGHH Agenda Goals**

- **Purchasing**

**Hospital Goal**

- The hospital aspires to promote the culture of making environmentally sound decisions in government, especially in the purchase and use of different products in every department of the hospital.
- The hospital intends to include environmental criteria in public tenders whenever possible and practicable
- The hospital aims to establish the specifications and requirements for products and services to be considered environmentally advantageous through its content, packaging, method of production and delivery
- As a Hospital promoting patient’s well-being, environmental conservation and protection, green procurement aims to sustain and encourage participation on the carried out advocacy

**Progress Achieved**

The Philippine Heart Center has defined Green Procurement as “the act of procuring products and services where environmental considerations are incorporated as a basis of decision. This is in addition to the conventional judgment used such as price and quality. It is also procuring less of a particular service and product. The Green Procurement Team particularly upholds Environmentally Preferable Purchasing where products are generally (1) less toxic; (2) minimally polluting; (3) energy efficient; (4) safer and healthier for patients, workers and the environment; (5) higher recyclability and recycled content; and (6) with less packaging.

Green Procurement Team was created sometime April 2012 under the supervision of Eco-Friendly Committee Waste Management Component. The Green Procurement Team is composed of the representatives from different departments such as Engineering Department, Housekeeping Department, Infection Control Unit, Emergency Response Unit, Pulmonary Unit (Medical Department), Central Supply (Nursing Department) and Human Resources Department.

The Green Procurement Team led the institutionalization of Green Procurement Standard by incorporating them in the Philippine Heart Center Policy Manual also in 2012. The policy highlights three important components in procurement of products and services. These are product -, process - and manufacturer - specific attributes. Please see the table below for the characteristics of the identified attributes under each component.

**Table 1.0 Green Procurement Component and Attribute**

Component	Attribute
Product – Specific	Recycled content, reusable, biodegradable, energy and water efficient, Biobased, organic and natural, non-hazardous material, free of noise pollution, low toxicity, durability, low VOC, renewable resources, packaging, upgradeable, resource conservation, preferably locally available, preferably with eco-label and eco-approval, solar powered preferred
Process – Specific	Transportation (eco-friendly delivery of goods), use of renewable energy during production, absence on greenhouse gas emission, closed – loop manufacturing
Manufacturer – Specific	No – environmental violations, credible environmental management system, corporate social responsibility, mechanism for engaging stakeholder, absence of ongoing protests, end-of-life agreement program, replacement agreement for manufacturer defect, waste agreement

The institutionalization of policy gave way to actual purchasing and utilization of patient –, employee – and environment – friendly equipment and devices. Among the products procured after the implementation of the policy are non-mercurial thermometers, sphygmomanometers and lithium batteries, elimination of usage of incinerators, usage of 134a refrigerants instead of the traditional ozone depleting substances, T5 CFLs and LED lights, water – less urinals, water – saving toilet features (ex. Dual – flush system), recyclable food packaging, use of eco-wood and fiber cements in construction, PPR and PPE pipes instead of PVC, low VOC, antibacterial and depolluting paints.

The ratification of the Green Procurement Policy has also allowed construction and installation of a Sewage Treatment Plant, Solar Panels, botanical gardens and vertical gardens, procurement of heat pumps and Air Conditioning Units. Adjacent policies and practices also rose from the Green Procurement Standard implementation. A few of them are inter-office usage of recycled paper, recycling of linens and paperless medical tracking through Med – Trak system.

The transition with the employees, manufacturer and service provider went smoothly. It was ensured that employees were informed of the changes through the quarterly orientations. On the other hand, manufacturers and service providers were brought in to the system by first ensuring that they are ISO certified. ISO certified companies adapt eco-friendly technology and procedures. Also, submitting clear specification for service bidders and manufacturers helps in of procurement.

**The Issue**

The Philippine Heart Center is foremost committed to providing our patients with quality care and service while protecting the environment and advocate for health justice. Adamantly deciding to choose practices and actions that are environment and patient - friendly helps us uphold this commitment.

The enactment of Executive Order 30 (Establishing a Green Procurement Program For All Departments, Bureaus, Offices and Agencies of the Executive Branch of the Government) and collaboration with Local Government Authorities such as the Department of Environment and Department of Health also mandates the Philippine Heart Center to employ environment and health sustainable measures, policies and activities.

Being a semi-government hospital, procured product and services of the hospital undergoes bidding. Often, the most cost - efficient providers gains the required product and services. To secure that the most appropriate product or services is acquired, specification is adequately defined. In the end, the Bids and Awards Committee (BAC) are still obliged to comply with the Terms of Reference. The contract will still be awarded to the most competitive and responsive provider in terms of the stipulations in the terms of reference.

Initial installation and / or procurement cost are generally high. However, given a period of time, return of investment (ROI) is acquired and savings are made. Generally, the Philippine Heart Center aims to regain the investment in one to two years. The table below presents quantified ROIs and saving which shows that projected outcomes were achieved.

Equipment	Installation Cost in Php	Operation Cost in Php (Previous Equipment)	Operation Cost in Php (Present Equipment)	**Saving in Php (Monthly)	***Return of Investment in Php (ROI)
Boiler		(total operation cost) 419,960 ≈ \$9,160			20 months
Heat Pumps		(diesel) 338,000 ≈ \$7,347  (water) 30,000 ≈ \$652.17  (electricity) 48,960 ≈ \$1,064			
	5,653,200 ≈ \$122,896		(electricity) 137,000 ≈ \$ 2,978	282,960 ≈ \$6,151.30	
Solar Panels	(total cost) 1,348,932 ≈ \$29,325  (panels)			70,000 ≈ \$1,522	20 months

	141,723 ≈ \$3,081				
	(inverter)				
	607,200 ≈ \$13,200				
	(labor)				
	600,000 ≈ \$ 13,305				

\*\$1=Php 46.00  
 \*\*Saving = Previous Operation Cost - Present Operation Cost  
 \*\*\*ROI = Installation Cost / Saving

**Sustainability Strategy Implemented**

The support of the Management led by the Hospital Director and the collaboration of employees are greatly important and needed to sustain the entire project initiated by the Eco - Friendly Committee. The collaboration of both the Management and employees are significant to the success of the advocated endeavors of the committee.

To inspire the management’s support, the whole Eco - Friendly Committee particularly the Green Procurement Team ensures that initiated programs are practical and workable. This means that the presented programs and activities are properly researched, with cost - benefit analysis projections, return of investments and detailed specification. Upfront, the initial investment may be considered substantial. However, with the cost analysis projection it is often shown that the return of investment is just within 1 to 2 years. Moreover, the longevity of products, warranties and end of life disposal process are offered.



Solar Panels and Heat Pumps

Education, Information and Communication were given to employees through quarterly orientation and public service reminders in strategic areas of the hospital.

**Implementation Process**

During the establishment of the Eco - Friendly Committee, Green Procurement Team was also formed. After the formation of the committee, a simple audit of existing policies, equipment and services were conducted. Comparison of product features and services given by suppliers are reviewed to find better substitutes for equipment and other materials.

The results of the audits which was conducted for a year served as baseline for development of new policies and product specifications. They were made to aid in the procurement process. Projects were also identified to further assist the hospital in upholding its commitment to transform their own healthcare system. To name a few, these projects are installation of solar panels and heat pumps.

Equipment and service providers were better selected through the list of specification the Green Procurement Team have developed.

Management and employees were routinely informed of the changes and developments of the programs and activities. Management is briefed on the program or activity cost-benefit projection while the employees are oriented on the safety benefits of the new equipment.

Simple monitoring logs are also prepared by the team to monitor their old and new equipment purchases. Every department has a record which contains the property endorsed to them as end user. Centralized record is kept by the Property and Supply Division. Innovation and development of materials are headed by individuals depending on their expertise or discipline. For example, mechanical and motor specification are drafted by mechanical engineers while electrical needs by electrical engineers. This also allows them to see which services or equipment purchases may be further improved or developed.

### **Tracking Progress**

Philippine Heart Center measures its progress on Green Procurement Program through the following indexes:

**Policies :** Policies are constantly reviewed, developed, adapted and implemented every 2-3 years in time for the hospital's accreditation

**Supply :** The Philippine Heart Center continuously evaluates needed supply, equipment and services to identify better alternatives which are environment, patient and economically friendly.

**Saving:** Monetary savings from innovations made such as transition from boilers to heat pumps are monitored.

### **Challenges and Lessons Learned**

Innovation and development entails cost. At times these investments may seem large if the benefits (eg. monetary, environment, patient and employees (social)) are not taken into consideration.

Initially, meriting approval for the proposed programs and projects were difficult because of the start – up cost and other consideration.

However, with the adequately researched information and properly formulated justification of the programs and projects the difficulty is easily managed.

### **Next Steps**

The Philippine Heart Center is considering to transform the policies adopted into a Green Procurement Manual. The hospital is also adamant to acquire knowledge on carbon emission accounting to better gauge the impacts of their current operation and implemented programs and activities.

In terms of installation of new structures, the PHC is aiming to construct an energy efficient building (for parking) and their own autoclaving unit. The parking area will be solar powered. Auto claving unit situated within the hospital premises will reduce carbon emission acquired from transportation of properly segregated wastes for treatment and disposal.

### **Demographic Information**

The Philippine Heart Center, a semi-government hospital is a 382 – bed tertiary care center. There are 21 nursing units. This includes 53 Intensive Care Unit (ICU) beds, 3 hybrid operating rooms, 24 suites, 56 private rooms, 74 semi – private rooms, 3 adult service wards, a presidential suites, pediatric service ward and a auditorium. They also provide MRI, CT- Scan and Physical Rehabilitation Services.

### **Links**

[www.phc.gov.ph](http://www.phc.gov.ph)