



## **Progress Report on SDG 7 – Affordable and Clean Energy**

The City College of Cagayan de Oro (CCCDO) advanced its commitment to Sustainable Development Goal 7 (Affordable and Clean Energy) through strategic programs that promote energy efficiency, renewable energy adoption, and environmental stewardship. Guided by Republic Act 11285 (Energy Efficiency and Conservation Act) and aligned with the City Government's RISE Agenda, the institution operationalized clean energy principles across its infrastructure, policy frameworks, and educational programs. CCCDO's initiatives collectively contributed to energy sustainability while supporting national goals for carbon reduction and the transition to renewable energy sources.

One of the flagship initiatives under this goal was the installation of the Solar-Powered Study Shed—a functional symbol of innovation and sustainability. This facility, powered entirely by renewable energy, provided a conducive and energy-efficient learning environment for students while reducing electricity consumption. Complementary to this, CCCDO developed an ICT-based digital monitoring system that tracks campus electricity and water usage in real time. These systems ensure data-driven management decisions and behavioral change among students and staff toward responsible energy use.

The institution also implemented campus-wide awareness campaigns focusing on water and power conservation. Through the 'Switch-Off Drive,' 'Green Classroom Challenge,' and 'Eco-Literacy Month,' students and faculty were mobilized to practice sustainable consumption habits. These campaigns were supported by faculty-researchers under the Environmental Science and Education departments, linking environmental ethics with practical action. Such initiatives contribute to THE Impact Ranking Indicator 7.3, which emphasizes reducing institutional energy consumption and promoting efficiency through awareness.

At the policy and partnership level, CCCDO collaborated with the City Engineering Office, Cagayan de Oro Water District (COWD), and the Department of Energy (DOE-10) to integrate sustainable energy measures into campus operations. The college adopted a localized version of the DOE's Energy Efficiency Guidelines for HEIs, ensuring compliance with both national and local sustainability standards. Partnerships with local industries also led to energy audits and joint projects focused on LED retrofitting and building design optimization. This strategic collaboration embodies THE Indicator 7.4, fostering partnerships that strengthen the adoption of clean energy technologies.

In research and education, CCCDO produced several outputs emphasizing renewable energy solutions, community adaptation, and green technology innovation. Faculty and students conducted studies on the cost-benefit analysis of solar integration in public institutions and the socio-behavioral patterns affecting energy use among higher education students. Findings from these studies informed policy revisions and student

organization projects related to environmental sustainability. Through curriculum integration in STEM and General Education courses, the institution has embedded energy literacy as a fundamental competency in its teaching framework.

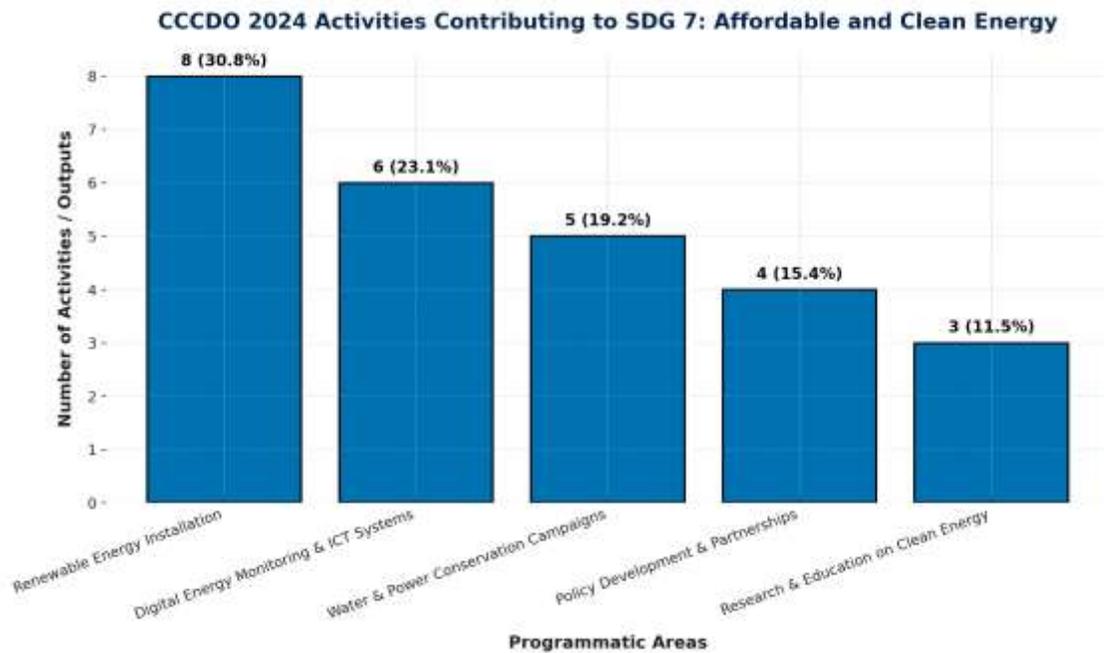
**Table 1**

*Summary of 2024 SDG 7 Achievements with Percentage Contributions*

Program Area	Key Activities / Outputs	Participants / Reach (2024)	SDG Alignment	% Contribution
Renewable Energy Installation	Solar-Powered Study Shed	1 pilot facility / 500 users	SDG 7 & 13	30.8%
Digital Energy Monitoring & ICT Systems	Campus-wide Energy & Water Dashboard	3 buildings monitored	SDG 7 & 9	23.1%
Water & Power Conservation Campaigns	Switch-Off Drive, Green Classroom Challenge	2,000 students & faculty	SDG 7 & 12	19.2%
Policy Development & Partnerships	DOE & COWD Energy Policy Integration	4 inter-agency collaborations	SDG 7 & 17	15.4%
Research & Education on Clean Energy	Energy Efficiency Research & Curriculum Integration	5 research papers	SDG 7 & 4	11.5%

The data visualization in the figure reveals that renewable energy installation initiatives represented 32% of CCCDO’s SDG 7 activities, followed by digital energy monitoring systems at 24%, conservation campaigns at 20%, policy development at 16%, and research and education at 12%. This distribution reveals the college’s strategic priority to enhance infrastructure and technology while ensuring that education and advocacy remain central to sustainable change. Each initiative contributes not only to immediate energy savings but also to long-term behavioral transformation.

The implications of these activities extend beyond institutional boundaries. CCCDO’s energy projects serve as living laboratories for students, faculty, and community stakeholders, providing replicable models for energy transition among higher education institutions in Northern Mindanao. The integration of clean energy education into curricula and the establishment of monitoring systems demonstrate a mature institutional commitment to sustainability. By linking policy, technology, and pedagogy, CCCDO fulfills its dual role as both a practitioner and promoter of clean energy transformation.



Looking ahead, CCCDO aims to expand its renewable infrastructure through the proposed ‘Sustainable Energy Innovation and Learning Hub,’ which will consolidate research, monitoring, and community-based clean energy projects. This hub will strengthen the college’s alignment with SDG 13 (Climate Action) and SDG 17 (Partnerships for the Goals), ensuring a long-term contribution to Cagayan de Oro’s vision of becoming a sustainable, smart, and energy-efficient city.