Project "Green Transition in Ukrainian Universities"

GREEN TRANSITION UNIVERSITY

Self-Assessment Report

Institution	**Odesa Polytechnic National University**
Period	**2023**
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INTRODUCTION

The strategic goal of Odesa Polytechnic is to ensure the sustainable development of the university, which is integrated into the global educational and scientific space.

Odesa Polytechnic National University (OPNU) is committed to a green transformation in research, aiming to advance sustainable technologies and methodologies. This includes a focus on improving energy efficiency, exploring alternative and renewable energy sources, and addressing environmental challenges through interdisciplinary research initiatives within departments such as the Institute of Energy.

OPNU is dedicated to integrating green principles into its educational framework. Despite the current absence of a specific green education unit, the university acknowledges the importance of sustainability education by offering programs such as "Environmental Safety" and elective courses like "Ecology." The ongoing curriculum review underscores the commitment to aligning learning outcomes with Sustainable Development Goals (SDGs) and promoting environmentally conscious practices among students.

The university's green campus transformation is a significant priority, as evidenced by developing a strategy that unfortunately faced delays due to external factors. After the damage to the campus due to the missile attack on June 14, 2023 (https://op.edu.ua/news/14848), work towards a green campus was halted. All university funds are now directed towards the restoration of the buildings. Despite setbacks, OPNU actively invests in restoring and improving campus infrastructure to align with sustainability goals, including waste management, energy efficiency, and overall environmental sustainability.

1 GREEN RESEARCH

1.1 Green Research at Odesa National Polytechnic University description

1.1.1 Sustainability and green transition planning and action in research activities

University researchers publish articles and conference materials about the Sustainable Development Goals annually.

Odesa Polytechnic has no research project related to sustainable development in the 2022-2023 academic year.

1.1.2 Support for research initiatives regardless of the origin of the green transition strategy in research

Regardless of the origin of the green transition strategy in research, these initiatives will receive the support necessary for success if it does not require additional funding.

1.1.3 Internal policies in place to monitor the alignment of the research strategy with specific Sustainable Development Goals and to assess progress

At this stage, OPNU does not currently provide systemical sustainability/green transition planning and action in research at any level.

But we should point out that local policies are implemented at the engineering institutes of OPNU, for example, the Institute of Energy and the Ukrainian-Polish Institute.

1.1.4 Does the university have thematic communities (formal or informal) in areas related to the Sustainable Development Goals (priorities SDG7, SDG8, SDG9, SDG11, SDG12, SDG13, SDG15)?

Odesa Polytechnic does not have a formal, thematic community related to sustainable development goals. However, this issue is constantly in the attention of the Society of Young Scientists.

1.1.5 List of departments that have been visibly successful in dealing with green transition issues in research and development activities

The University has a wide range of scientific research for sustainable development. The table below shows the most significant research areas and corresponding structural divisions.

Department	**The research areas**
Department of Thermal Power Plants and Energy Saving Technologies	– Improving the efficiency of thermal power plant (TPP) power equipment, considering their service life; – Improving the efficiency of pulverized coal power unit cleaning systems;

	– Integrated use of heterogeneous alternative and secondary sources for heat supply systems of different heat outputs; – Improving the flow parts of TPP equipment; – Increasing the efficiency of autonomous heat supply – Increase the efficiency of cogeneration units.
Department of Nuclear Power Plants	– Improving the efficiency of power plant equipment functioning, considering their service life; – Improving the efficiency of pulverized coal power unit cleaning systems; – Integrated use of heterogeneous alternative and secondary sources for heat supply systems of different heat outputs; – Improving the flow parts of TPP equipment; – Improving the efficiency of autonomous heat supply; – Improving the efficiency of cogeneration units.
Department of Theoretical, General, and Non-Traditional Energy	– Resource-saving technologies based on thermodynamic analysis of systems; – Methods of energy-saving use of traditional and renewable energy sources; – Calculation of soil accumulators of solar systems; – Electric heating systems with night heat accumulation; – Hybrid photovoltaic modules with arbitrary coolant flow; – Double-sided solar photovoltaic cells.

1.2 Results of Green Research Self-assessment

OBJECTIVES	INDICATORS	RATING Evidence of Institutional/ Faculty recognition & action 0 = No 1 = Minimal 2 = Weak 3 = Adequate 4 = Strong 5 = Very strong	URL or location of supporting documents (e.g., strategic and organisational plans, meeting agendas or minutes, white papers, mission & policy statements, etc.)
The University promotes the activities and results of the research teams' work on achieving the Sustainable Development Goals among external stakeholders	University's podcasts, social media, online/offline public speaking, YouTube channels, etc.	1	https://www.facebook.com/groups/OPNU.online
The University has mechanisms for assessing planned/prepared research projects for the environmental impact of activities during	Institutional documentation, which defines the assessment procedure for planned/prepared research projects	2	https://op.edu.ua/sites/default/files/publicFiles/node_docs/polozhennya_pro_etyku_naukovyh_doslidzhen.pdf

project implementation			Regulation on the ethics of scientific research at the National University "Odesa Polytechnic," item 3: „not to harm human health and life, the environment, strive to ensure the safety, dignity, and rights of those involved in the research.”
The University has the mechanisms to promote and stimulate research activities to minimise environmental impact	Institution documentation, which describes the mechanism for promotion and stimulation	2	https://op.edu.ua/sites/default/files/publicFiles/node_docs/kodeks_49.pdf Code of Professional Ethics and Conduct for University Employees: "ensuring the effective performance of professional duties by university employees based on observance of the principles of legality, public morality ... creating conditions for universal moral values and sustainable development"
The University ensures the implementation of the results of research projects to achieve the Sustainable Development Goals in the educational process	The list of cases and best practices	1	GTUA project Erasmus+ projects

2 GREEN EDUCATION

2.1 Green Education at Odesa National Polytechnic University description

2.1.1 University units that have specific responsibilities for green education

The flagship educational program is the Department of Thermal Power Plants and Energy Saving Technologies. Academic areas of the department include:

- Analysis of modern technical solutions, modernization, and improvement of elements, components, and assemblies of NPP power equipment systems;
- Neutron-physical, radiation, thermal-hydraulic, and chemical processes in nuclear reactors, generation, conversion, and use of thermal energy;
- Operation of nuclear power plants, reliability improvement, life extension and decommissioning of NPPs, management of radioactive waste and spent nuclear fuel, analysis, and ensuring nuclear and radiation safety;
- Improvement of NPP operating modes; selection of monitoring and control parameters; analysis of primary and auxiliary equipment operating modes;
- Improvement of safety and efficiency of nuclear power plants; development of methods and means to ensure NPP safety; improvement of safety indicators through numerical modeling using computer codes;
- Analysing the experience of NPP accidents, developing a method for reassessing NPP safety, and developing effective strategies for managing severe accidents;
- Diagnostics of NPP equipment;
- Technologies, methods, and means of radiation control and monitoring at NPPs.

Another specialized department is the Department of Theoretical, General, and Non-Traditional Energy. Educational areas of the department include:

- Solar heating and hot water supply systems;
- Heat pumps;
- Production and use of biofuels;
- Wind power plants;
- Photovoltaic power plants;
- Modern energy complexes;
- Methods of energy saving;
- Application of software and optimization of energy systems.

2.1.2 Green subjects, topics, options, etc., taught in any non-engineering or engineering departments or faculties

In 2022-2023, the catalog of elective courses offers all students the discipline “Ecology.”

2.1.3 List of approved regulations/mechanisms/procedures in the University with recommendations on the need to reflect the selected GSDs in the objectives, orientation, and main focus of the study program

There are no approved regulations/mechanisms/procedures at the university with recommendations on the need to reflect the selected sustainable development goals in the curriculum's objectives, orientation, and primary focus.

2.1.4 Mechanisms of green transition education delivering (in the form of elective courses, as a defined module or option, a degree program, or a mixture of formats)

Currently, the university offers one educational program in the "green" direction, separate disciplines within the framework of other educational programs, elective disciplines for all university students, and teacher professional development programs.

2.1.5 Developing new study programmes and modifying existing curricula to achieve the selected SDGs based on the results of cooperation with employers and other stakeholders

Odesa Polytechnic provides an “Environmental Safety” program. In the 2022 edition of the curricula, there are no transparent references to the selected goals from the list of sustainable development goals in the learning outcomes. However, a planned review of the curricula is underway, and one of the recommendations is to add the necessary references.

Cooperation with employers and other stakeholders is necessarily considered when developing and modifying new curricula. Still, aspects of achieving selected goals from the list of sustainable development goals are not considered.

2.1.6 Transparent links to the selected goals from SDGs in the learning outcomes for the study program

A new template for developing syllabi for academic courses was created and is waiting for approval. This template includes a dedicated section that elucidates the purposeful integration of subject matter related to the Sustainable Development Goals (SDGs) into work programs. The template underscores the importance of aligning course content with the broader goals of sustainable development, promoting a more holistic approach to education that equips students with knowledge and insight into the multifaceted dimensions of the SDGs.

2.1.7 Availability of choice of elective courses related to green transition for students in any engineering degree program. Who can participate in sustainability or green transition-related problem- or project-based studies/projects for students/non-curriculum activities, etc.?

The university does not limit teachers in developing "green" courses or students in choosing them.

2.1.8 If you and your colleagues were just starting to develop the activities under review, what would you do differently?

We would adopt a more proactive approach to integrating Sustainable Development Goals (SDGs) into every facet of educational programming at the university. Our strategy would involve considering each new educational program through the lens of SDGs, ensuring that the program explicitly aligns with specific goals. Additionally, we would apply a similar approach when updating existing academic programs, aiming to embed sustainability principles into various disciplines and topics. This intentional incorporation of SDGs would not only contribute to the university's commitment to global sustainability but also provide students with a holistic understanding of the societal and environmental impacts of their academic pursuits.

2.1.9 Brief evaluative summary of the green transition-related program(s) or offerings of the University, e.g., the strengths, accomplishments, limitations, and work in progress

Department/ Unit	**Green transition-related program(s)**	**Topical Target / Learning Objective**	**URL or location of supporting documents**
Institute of Energy / Department of Environmental Safety and Hydraulics	1. Degree Program “Environmental Safety”	Learning objectives: Formation of knowledge, skills, and abilities for application in higher education in professional activities in ecology, environmental protection, and sustainable and sustainable use of natural resources.	https://op.edu.ua/education/programs/bac-101-1
Institute of Energy / Department of Theoretical, General, and Unconventional Energy	1. Degree Program “Renewable energy sources and energy complexes”	Learning objective: Training specialists capable of solving specialized tasks and practical problems in electric power engineering, electrical engineering, and electromechanics, which involves the application of theories and methods of physics and engineering sciences and is characterized by complexity and uncertainty of conditions.	https://op.edu.ua/education/programs/bac-141-9
	2. Concentrations and Elective Options		https://op.edu.ua/kaf-peggd/disciplines Courses

	related to green transition issues		
All curricula	3. Green transition activities in the Curriculum	The discipline "Fundamentals of Ecology" has been added to the catalog of common elective disciplines for students of the first (bachelor's) level of higher education	https://op.edu.ua/education/selective?field_op_spec_tid=All&field_field_op_type1_value=All&field_op_institute_nid=All
All Institutes	4. Student Involvement (Non-curricular activity) in green transition activities	Students' curators work on the education and understanding of careful attitude to the environment	https://drive.google.com/file/d/19kmVuhiVPiKtAc5Dn9hUKpP8NJbBhIEi/view The Statute of the OPNU, section 2, paragraph 4: "formation of personality through patriotic, legal, ecological education, the establishment of moral values, social activity, civic position and moral values, social activity, civic position and responsibility, healthy lifestyle, ability to think freely and self-organization in modern conditions;"

2.2 Results of Green Education self-assessment

OBJECTIVES	INDICATORS	RATING Evidence of Institutional/ Faculty recognition & action 0 = No 1 = Minimal 2 = Weak 3 = Adequate 4 = Strong 5 = Very strong	URL or location of supporting documents (e.g., strategic and organisational plans, meeting agendas or minutes, white papers, mission & policy statements, etc.)
The University has policies/procedures for considering sustainable development goals in the design and development of the offered study programs	Institutional documents and/or faculty/department/study unit level documents presented on their websites clearly show that green strategies influence the planning, implementation and development of study programs	2	Statute of the OPNU, section 6, paragraph 11: "to ensure compliance with environmental requirements following the legislation of Ukraine;"
The university offers extracurricular green transition courses	The university offers a university-wide list/catalogue of courses (microcredits) with topics corresponding to the green transition	3	Odesa Polytechnic has approved and is implementing advanced training programmes for academic staff on the principle of "microcredits", with a total volume of 1, 2 credits each (https://drive.google.com/file/d/1ZpJPnCp7X

			FMEx6RR9Q8DSSshNuOw164r/view) Protocol No. 1 of 25.08.2023. The proposed programmes are focused on mastering the Google Workspase platform for beginners and advanced users, Tutoring in HEIs (with a special emphasis on adherence to the principles of sustainable development in educational, scientific, and everyday activities), pedagogical skills, a course on sustainable development goals and environmental care is being developed. Every year, events are held for students to promote the principles of academic integrity (for example, https://op.edu.ua/news/13761), where, in addition to plagiarism, the principles, norms and rules of general behaviour based on mutual respect and care for the environment are promoted.
Students and teachers are involved in the promotion of green transformation policies	Availability of facts/documents/events confirming the participation of students and teachers in green transition activities	2	https://op.edu.ua/about/scientific_society
The University cooperates with stakeholders in the formation of green transformation policies in educational activities	Availability of facts/documents/agreed decisions confirming consideration of requests/suggestions of students, alumni and employers regarding the green transition in the content of study programs and curricula	1	https://op.edu.ua/sites/default/files/files/opscans/bac-101-1_ekologichna_bezpeka_id_50698.pdf Curricula which was developed under stakholders requirements

3 GREEN CAMPUS

3.1 Green Campus of Odesa Polytechnic National University description

3.1.1 Campus description

Odesa Polytechnic is situated in Odesa (Ukraine). Odesa has a hot-summer humid continental climate, bordering a cold semi-arid and a humid subtropical climate.

Odesa Polytechnic is located between the historic and resort areas in the central part of the city. The campus has two locations. The first location concentrates on 14 academic buildings and the second concentrates on the dormitories and sports complexes of Odesa Polytechnic. The total area of the university buildings is 164 926 m^2. Additionally, the Odesa Polytechnic has a recreation center, "Chaika", located outside the city on Karolino-Buhaz.

Now, the Odesa Polytechnic campus has no specific infrastructure solutions. In 2021, a green transformation strategy until 2025 was developed. However, after the outbreak of war, the work was stopped. After destroying the university buildings due to missile fragments, all the university's funds were directed to glazing windows and restoring the roofs and walls of the buildings.

3.1.2 Campus Water Management Facilities

Now, OPNU does not use any water management facilities.

3.1.3 Energy and Climate change policies on campus

Currently, OPNU lacks specific policies addressing energy and climate change. The overall energy consumption in 2022 decreased due to the Russian invasion of Ukraine. Despite the intent to enhance sustainability, plans to install solar panels on one of the buildings faced a setback as the military administration imposed a ban. This restriction was attributed to concerns over the glare from the panels, mainly since OPNU's buildings are close to the seaside line.

3.1.4 Waste management on campus

Now, OPNU does not realize any waste management activities. OPNU participates in the collection of paper waste, metals, and the utilization of returned materials (recyclables) for ongoing activities.

3.1.5 Campus transport policy

Now, OPNU does not have any campus transport policy. It uses the city infrastructure. However, the city of Odessa has an extensive system of various types of electric transport gadgets. Considering the fact that the dormitories of ONPU are located in the park zone of the city, the student campus is equipped with local electric transport gadgets.

3.1.6 Health Infrastructure Facilities

OPNU collaborates with Odesa Student City Clinic #21, which provides medical care services for OPNU students.

OPNU has its own sports complex, which provides sports facilities such as a gymnasium, basketball hall, boxing ring, swimming pool, stadium, football field, etc., for students and teachers of the OPNU.

In the student campus (Dormitory 5), there is a sanatorium-preventorium for higher education seekers, where, among other things, special dietary nutrition is offered.

The menu of the university's canteens includes, among other things, vegetarian dishes.

3.1.7 Security and Safety Facilities

Now, OPNU provides fire prevention and extinguishing equipment. All rooms where laboratory work is carried out are equipped with first aid kits.

3.1.8 Campus facilities for disabled people

The OPNU guarantees disabled people the opportunity to get to any place on the territory of the University (if necessary, transfer of persons with disabilities is organized in buildings without lifts). To manage the educational process for persons with special needs, special classrooms are equipped in Academic Building #4 on the first floor. There is also a sanitary room with widened doors to provide access for wheelchair users. The University accommodates people with special educational needs and accompanying persons (Dormitory #3 is 400 meters from the University; it has a separate entrance equipped with a ramp and living quarters on the floor). To organize inclusive education, the University has a psychological and pedagogical support group designed to provide exceptional educational and rehabilitation support (assistance in managing the educational process, individual consultations, social and psychological support, etc.)

3.1.9 Green community development

As part of the curator's work with the academic group, roundtables and discussions on environmental issues are held, including with the involvement of ecologists from the Odesa region and employees of the Research Institute of the Black and Azov Seas. Students and teachers of the University actively participate in volunteer events to clean up parks and coastal areas from rubbish.

3.2 Results of Green Campus self-assessment

OBJECTIVES	INDICATORS	RATING Evidence of Institutional/ Faculty recognition & action 0 = No 1 = Minimal 2 = Weak 3 = Adequate 4 = Strong 5 = Very strong	URL or location of supporting documents (e.g., strategic and organisational plans, meeting agendas or minutes, white papers, mission & policy statements, etc.)
The University has a system of continuous/periodic monitoring of the degree/level of climate neutrality of activities carried out by the University as part of its campus activities	The University has programs, projects, activities, initiatives, and any other actions that provide for the assessment and/or measurement of climate neutrality, i.e. the achievement of a net zero emission of carbon dioxide and other greenhouse gases	0	N/A
	The University has committed to achieving carbon neutrality by a specified year	0	N/A
The entire academic community of the University is aware of the need to carry out	The University has a practice of surveys (sociological research) of the academic community regarding the awareness of the feasibility of measures to achieve the	1	As part of their studies in the Environmental Safety study programme, students perform various studies as individual assignments with

activities directly on the university campus, directly or indirectly related to the selected goals from the list of SDGs	SDGs		a focus on achieving socio-environmental results in professional educational components
The University has internal procedures in place to monitor and control the sustainable use of available space on campus, an even (or similar) distribution of learning activities in the timetable, restricted access workspace versus open space on campus, well-balanced indicators of the level of use of classrooms for educational purposes	The University has a practice of rational use of premises and/or open campus space for events	1	Information about the campus and dormitories https://op.edu.ua/campus/hostels
The University has a program/plan to reduce the use of paper and plastic on campus	The University has programs, projects, events, initiatives, any other actions to limit the use of paper and plastic on the university territory	1	OPNU participates in the collection of paper waste, metals, and the utilization of returned materials (recyclables) for ongoing activities
	The University has an electronic document management system	2	The iimplementation of electronic document management creates conditions for a fundamental reduction in the use of paper. Qualification papers of applicants are submitted exclusively in electronic format
	The University has a paper reuse policy	0	N/A

	The University has a practice of sorting paper and plastic waste.	0	N/A
The University has a water reduction/water conservation/water recycling program.	The University has a water reuse policy (for lawn weeding, toilet flushing, vehicle washing, industrial use, etc.).	0	N/A
	The University conducts measures on wastewater treatment.	2	All rooms of the university, including the campus, are equipped with devices to control the use of water and light
	The Uiversity conducts measures to systematically promote the ideas of conscious water consumption.	0	N/A
The University has energy-saving measures/programs on campus	Modernisation projects of existing buildings to increase energy efficiency have been implemented on the campus	0	OPNU was ready to install solar panels on one of the buildings. But we got a ban from the military administration because the panels glare and our buildings are close to the seaside line.
	The University has policies, programs, projects, events, initiatives, and any other actions related to carbon management and carbon reduction (use of energy-efficient technologies, transition to greener energy sources, etc.)	0	N/A
The University shall increase (at least maintain the existing level) the surface area of land, campus area covered with vegetation	The University has a policy or takes actions to preserve and/or increase the area of the campus area, which is land that absorbs rainwater (i.e., soil, grass, concrete block, synthetic field, etc.), covered by forest and planted vegetation (forest/urban park/garden, other area with trees/shrubs and shrubs/meadow and its biodiversity, natural or planted) or install walls and/or roofs covered	0	N/A

	with vegetation ("green" walls, internal gardens, "green" roofs, internal plantings in buildings, vertical gardens, etc.)		
The University is increasing the share of renewable energy used by the University in its daily activities.	The campus has a policy or take actions aimed at transitioning to greater use of renewable energy.	1	
The University has created a safe and inclusive educational environment, in particular, based on the principles of universal design and smart adaptation.	The campus has security and safety equipment (video surveillance cameras, fire hydrants, emergency response buttons, etc.).	3	https://drive.google.com/file/d/1IABDB6MRS0p3OZ5j17GlHGvxpDa-wfTH/view Technical report
	The University has a policy of "green" construction of new buildings and renovation of existing buildings (natural ventilation, full natural daylight, availability of the building's energy manager, "green certificate" of the building, etc.).	0	N/A
	The University has infrastructural solutions for persons with special educational needs (ramps, elevators, lifts, etc.).	3	https://drive.google.com/file/d/1IABDB6MRS0p3OZ5j17GlHGvxpDa-wfTH/view Technical report
The University supports and promotes a healthy lifestyle, including healthy eating	The University has projects, events, initiatives, any other actions to ensure sustainable food choices for everyone on campus, including vegetarian and vegan food.	0	N/A
	The University has a policy on the use of food products obtained due to ecologically safe use of land resources (agriculture).	1	The Department of Physical Education and Sports carries out activities to promote a healthy lifestyle

			The Statute of ONPU enshrines among the tasks of the academic community "promotion of a healthy lifestyle"
	The University has a health promotion program including hygiene, healthy eating, family planning, sports, and exercise.	3	https://drive.google.com/file/d/19kmVuhiVPiKtAc5Dn9hUKpP8NJbBhIEi/view Statute, section 7 "Structure of the University", paragraph 4) structural subdivisions of the university are ... educational and production and creative workshops, ... sports complexes, cultural and amenity facilities, centres student sports, campus, dormitories, student health and sports complex.
	The University has sports and medical infrastructure.	3	Order 11 of 17.06.2022 On the establishment of a medical centre of the National University "Odesa Polytechnic" Medical practice licence from 16.10.2014 AE №57100 Decision of the Academic Council of 25.05.2022 Minutes №12

4. OVERALL GREEN TRANSITION PROGRESS ASSESSMENT

OBJECTIVES	**INDICATORS**	**RATING** **Evidence of Institutional/ Faculty recognition & action** **0 = No** **1 = Minimal** **2 = Weak** **3 = Adequate** **4 = Strong** **5 = Very strong**	**URL or location of supporting documents** (e.g., strategic and organisational plans, meeting agendas or minutes, white papers, mission & policy statements, etc.)
The institution and its academic units recognise the contribution to green transition as an important or key element of institutional identity & general values	There is a stated commitment to contribute to green transition as a matter of institutional identity and values (*documented in mission statements, strategic goals, policy statements, development plans, annual reports, website content, etc.)*	0	N/A
	The Institution (overall or at the unit level) has expressed a commitment to green transition by the creation of positions (Vice-Rector, Dean, Head of department, etc.) and/or competent committees (a Council, Task Force, etc.)	1	The Council for the Education Quality Assurance (https://op.edu.ua/about/eqb) and the Centre for Quality Assurance of Educational Activities deal with the formation and provision of strategic and relevant

	or by assigning responsibilities to existing personnel and/or governing bodies and committees.		tactical measures for the development of the quality system of educational and scientific activities in the IHE. Responsibility for the implementation of the principles and goals of sustainable development is the task and responsibility of the heads of structural subdivisions (educational and research institutes, departments, divisions and services), which is enshrined in the Regulations on each structural subdivision and in the contracts of each manager.
	The Institution (overall or at the unit level) has published criteria for hiring, tenure, and promotion that recognise faculty members' contributions to green transition through institutional formal or informal support	0	N/A
	The Institution has established multidisciplinary and interdisciplinary structures (such as an institute/center/unit) for research, education, and policy development on green transition	2	https://op.edu.ua/kaf-peggd Educational areas of the department: – Environmental management of urbanised areas. – Development and implementation of an integrated environmental management system in accordance with international standards. – Organisation and conduct of monitoring studies of territories using

			geographic information systems and artificial intelligence. – Environmental safety of territories and water areas and regulation of anthropogenic load. – Organisation of environmentally oriented business projects and own business. Research areas of the department – Ecologisation of industrial and energy facilities. – Development and improvement of treatment equipment. – Sustainable development and environmental safety of cities. – Geoinformation technologies for monitoring natural and man-made hazards. – Ensuring the equilibrium state of aquatic ecosystems and sustainable use of water resources. Development and modernisation of air treatment facilities.
Institutional management (overall or unit level) treats green transition as an integral		0	N/A

part of the overall operational management strategy and practices			
Specifically, the Institution (and/or its units) includes good practices for green transition		0	N/A
The Institution (and/or units) provides opportunities for faculty and staff development to enhance understanding, teaching & research in green transition and sustainability		2	https://drive.google.com/file/d/19kmVuhiVPiKtAc5Dn9hUKpP8NJbBhIEi/view Statute of the OPNU, section 6, paragraph 11: "to ensure compliance with environmental requirements in accordance with the legislation of Ukraine;"

CONCLUSIONS

The self-assessment results showed that the Odesa Polytechnic National University is at the beginning of the green transformation path. However, there are notable efforts within the Institute of Energy, particularly in the Department of Thermal Power Plants and Energy Saving Technologies, and the Department of Nuclear Power Plants, where research focuses on improving the efficiency of power plant equipment, integrating alternative energy sources, and enhancing safety measures.

Ways for Further Activities:

1. Incorporate Sustainable Development Goals (SDGs): The OPNU should develop internal policies to monitor and align research strategies with specific SDGs. This would ensure a targeted approach to addressing global sustainability challenges.
2. Interdisciplinary Collaboration: Encourage collaboration between departments and establish formal or informal thematic communities related to SDGs. This can foster a holistic approach to sustainability research and education.
3. Curriculum Integration: Enhance the curriculum by explicitly referencing selected SDGs in learning outcomes. The ongoing curriculum review provides an opportunity to integrate sustainability principles across disciplines, ensuring students are well-versed in green concepts.
4. Establish a Green Education Unit: Create a dedicated unit responsible for green education initiatives, including the development of courses focused on sustainable practices. This unit can also oversee the integration of SDGs into the curriculum.
5. Green Campus Development: Resume and prioritize the implementation of the green transformation strategy for the university campus, considering sustainable infrastructure solutions, water management facilities, energy and climate change policies, waste management activities, and campus transport policies.
6. Engage Stakeholders: Actively involve employers and other stakeholders in the development and modification of curricula to ensure that the educational programs align with the needs of the industry while addressing sustainability goals.
7. Campus Sustainability Initiatives: Implement waste management activities, water management facilities, and energy and climate change policies on campus. Develop and enforce a campus transport policy to reduce the environmental impact.
8. Expand Health and Safety Initiatives: While OPNU currently provides fire prevention equipment and medical care services, expanding health infrastructure and safety facilities, especially in the context of green practices, can contribute to a healthier and more sustainable campus.
9. Enhance Green Community Development: Strengthen initiatives for a green community by organizing more events, such as roundtables and discussions on environmental issues. Encourage active participation in volunteer events to promote environmental awareness and sustainability practices among students and staff.