

Arab Academy for Science, Technology & Maritime Transport



Arab Academy
for Science, Technology & Maritime Transport



Report 2023 / 2024



SDG 13

Our Aim in 2023 -2024

Advance SDG 13 by measurably cutting campus CO₂/GHG emissions through expanded low-carbon energy and efficiency; scaling climate-literacy programs with NGO/government partners to strengthen adaptation and early-warning in coastal and urban communities; and embedding transparent public reporting to drive a credible path to net-zero.

THE Impact Ranking Scores 2022-2023



SDG 13

CLIMATE ACTION

13 CLIMATE ACTION





Key Milestones in 2023-2024

During 2023–2024, the Arab Academy for Science, Technology & Maritime Transport (AASTMT) advanced SDG 13: Climate Action through campus-wide education, public partnerships, co-planning for climate-related disasters, and a reinforced commitment to carbon neutrality. The year's work accelerated CO₂/greenhouse gas (GHG) emissions reduction, expanded low-carbon practices, and embedded mitigation and adaptation across academic programs, community outreach, and institutional operations.

Campus Climate Education & Skills for Resilience

AASTMT broadened its local education portfolio to turn climate change science into practical action. The Go Green campaign at the College of Pharmacy (Alamein Campus) mobilized students to phase down single-use plastics and shrink the campus carbon footprint, while a university conference on climate change and environmental sustainability connected global warming science to applied mitigation and adaptation in coursework and planning. Targeted trainings—Corporate Sustainability & ESG Reporting (CFAT, July 2024), Climate Change & Remote Sensing Applications (Aug 2024), and AASTMT's contributions to the Vision 2030 Forum—built literacy in early warning, flood and drought risk assessment, and practical GHG management in coastal/marine contexts. Student-facing dialogues (e.g., the Green Peace & Sustainable Resilience Forum) strengthened climate-aware leadership and reinforced a culture of carbon reduction on campus.





A Public Shared Roadmap for Decarbonization

AASTMT published and shared its Climate Action Plan (2024) as a public roadmap to cut CO₂/GHG emissions, scale low-carbon energy, and integrate energy efficiency and climate-resilient infrastructure across all branches. The plan's priorities were disseminated with authorities and community partners through flagship platforms—including “Towards Egypt's Energy Vision 2030” (Feb 2024), World Cities Day 2024 dialogues on climate-smart urbanism, public seminars with the High Institute of Public Health, and World Environment Day activities on green tourism. This outward-facing engagement ensured plan ownership beyond campus, advancing mitigation, adaptation, and a strategic shift away from fossil fuels in alignment with national priorities.



AASTMT Climate Action Plan 2024: Strategic Pathways to Sustainability and Carbon Reduction

1 Introduction

Purpose: This 2024 update reaffirms the Arab Academy for Science, Technology, and Maritime Transport's (AASTMT) commitment to climate action across operations, education, research, and community engagement. It aligns with AASTMT's documented interim and long-term emissions-reduction targets and maintains strict comparability with the published series by preserving the same scopes, boundaries, and methods.

Vision: AASTMT's long-term objective is a **50% reduction in total carbon emissions by 2040 (vs. 2019)**. On energy, the Academy continues to advance on-site renewables and efficiency to meet the institutional waypoint of **~25% renewable electricity by 2025** and to support the longer-term **40% renewables by 2040** trajectory noted in the Plan.

2024 status (inventory through year-end 2024): Total emissions are **103,862,750 kg CO₂e**—a further **-3.0%** from 2023 and **-32.8%** below the 2019 base year (**154,594,380.99 kg CO₂e**).



AASTMT Participation in the "World Cities Day 2024" celebration

Co-Planning for Climate-Related Disasters

AASTMT deepened coordinated planning with government and regional stakeholders to anticipate and manage escalating climate hazards. The Arab Day for Disaster Risk Reduction (Mar 2024) convened decision-makers to align protocols on sea-level rise, flood, and drought, improve early-warning systems, and strengthen inter-institutional crisis management. Policy and technical exchanges at MARLOG (with the Suez Canal Authority) connected green shipping, energy efficiency, and low-carbon maritime operations to disaster-readiness, while World Cities Day 2024 advanced city-level coordination on carbon reduction and heat/flood resilience. AASTMT also launched the Multidisciplinary Adaptive Climate Insights (MACI) journal as a shared knowledge backbone, linking research on CO₂ reduction and port decarbonization to actionable resilience strategies.



Informing & Supporting Government on Climate Policy and Early Warning

AASTMT provided direct technical support to public bodies to strengthen climate policy, monitoring, and early-warning capabilities. Cooperation protocols with the Ministry of Housing, Utilities and Urban Communities embedded coastal risk monitoring and marine resource governance into New Alamein’s urban plans. With the Ministry of Environment (Oct 2024), AASTMT advanced a Climate Change Information Center and AI-enabled tools for CO₂ reduction and plastics abatement—linking data, mitigation, and circular practices. The PRIMA 2024 info-day expanded WEFE-nexus proposals across ministries, municipalities, NGOs, and academia, while the RURALITIES partnership trained local and regional authorities in climate-risk monitoring, adaptation planning, and early warning for rural and coastal communities. The Environmental Monitoring & Climate Change Laboratory underpinned this work with meteorological, air-quality, and coastal analytics for evidence-based decisions.





AASTMT News

Home > News > PRIMA Annual Work Plan (AWP) for the year 2024



PRIMA Annual Work Plan (AWP) for the year 2024

Civil-Society Collaboration for Climate Education

AASTMT scaled climate education and community outcomes through NGO partnerships. The national UniGreen initiative (with Life Makers Foundation and EU support) engaged youth in GHG/CO₂ emissions reduction, renewable energy, waste solutions, and Water-Energy-Food-Ecosystems (WEFE) innovation via bootcamps, workshops, and a national competition. Multi-partner workshops on coastal cities gathered NGOs, researchers, and policymakers to tackle sea-level rise, erosion, and extreme weather, strengthening adaptation and early-warning literacy. Through INVOLVE and additional NGO-aligned agreements, AASTMT integrated ecosystem-based adaptation, biodiversity, and land/resource education—amplifying civil-society collaboration for low-carbon and climate-resilient development.



AASTMT Research Projects

[Home](#)
[Overview](#)
[Scientific Research](#)
[International Research Projects Center](#)

AASTMT Research Projects

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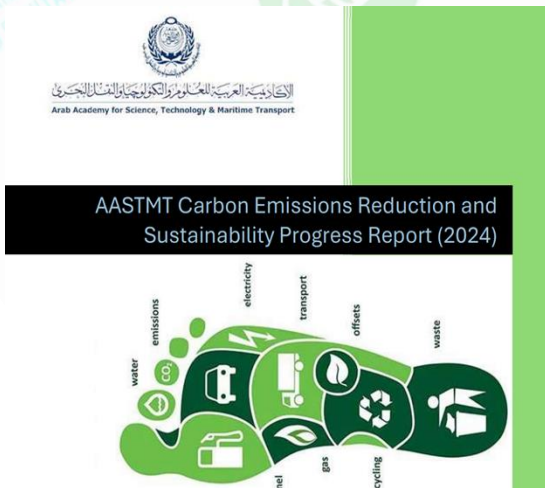
PROJECT: INTEGRATION OF SUSTAINABLE DEVELOPMENT GOALS IN UNIVERSITIES FOR BETTER CLIMATE CHANGE MANAGEMENT "INVOLVE"


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Net-Zero Governance & Transparent Emissions Reporting

AASTMT reinforced its institutional pathway to net-zero with transparent reporting and policy. The 2024 Carbon Emissions Reduction & Sustainability Progress Report documented Scopes 1 & 2 and selected Scope 3 trends, recording year-on-year GHG/CO₂ reductions and strong progress versus the 2019 baseline. Cross-campus energy reporting—Insights into Energy Consumption and Carbon Emissions 2024—tracked low-carbon energy deployment (e.g., solar PV) and energy-use intensity, while the Climate Action Plan set interim targets to achieve carbon neutrality through renewables, efficiency, sustainable transport, and climate education. AASTMT’s environmental policy anchored this commitment institutionally, and external recognitions (e.g., QS Sustainability 2024, UI GreenMetric 2024) reflected growing visibility of decarbonization, resource stewardship, and GHG performance among global peers.





**2024 AASTMT Insights:
Insights into Energy Consumption and Carbon Emissions**

To assess AASTMT's progress in energy efficiency and carbon emissions reductions, it is essential to establish a baseline using data from 2018 to 2022. This period serves as a foundation for future energy consumption and emissions and allows for a clear comparison with data from 2023 and 2024.

1. Energy Consumption

AASTMT Energy Research Unit and Energy Management Committee put forward several strategies for regular online monitoring of energy consumption in all AASTMT campuses. Insights of energy consumption were prepared by AASTMT Energy Sustainability Team and AASTMT Energy Management Committee based on the activities of the Maintenance and Electrical Facilities Department and Project Management in Abu Qir and the mechanism for follow-up and measurement of performance indicators (KPIs) as well as 2024 rationalization and renovation plans.

➤ **Electrical Energy consumption in all Alexandria campuses**

First, **energy consumption in all campuses of AASTMT Alexandria branch** is first analyzed since this branch experiences the highest consumption due to its multiple campuses and largest number of staff and students. **Figure 1** shows the **total energy consumption in the entire Alexandria Campuses** within the period (2018-2024). It is clear that comparing the latest consumption in 2024 (10498097 kWh) by the baseline in 2018 (12698059 kWh) results in a total of **17.33% reduction in energy consumption.**

2018-2024 Electric Energy Consumption in AASTMT Alex. Campuses



Multidisciplinary Adaptive Climate Insights (MACI) Journal

The MACI Journal provided a dedicated platform for publishing climate resilience and adaptation research, enabling global knowledge-sharing on climate adaptation, mitigation, and sustainable practices. This initiative positioned AASTMT as a leader in climate education and research, promoting evidence-based solutions that address global climate challenges.



These achievements in 2023-2024 reflect AASTMT's commitment to advancing SDG 13 through targeted, impactful actions in education, community engagement, research, and global collaboration. Through strategic partnerships, innovative projects, and dedicated climate resilience efforts, AASTMT is effectively positioning itself as a climate action leader within the academic and global community.

Community Engagement

During 2023–2024, AASTMT deepened community-focused climate change action by opening classrooms, labs, and forums to the public; sharing a campuswide roadmap for CO₂/greenhouse gas (GHG) emissions reduction; co-designing early-warning and preparedness with authorities; and partnering with NGOs to scale mitigation and adaptation skills across Egypt's coastal and urban communities. These engagements—hosted at AASTMT

and convened by AASTMT—advanced a just, low-carbon transition while shrinking our institutional carbon footprint.:

Climate Literacy that Travels Beyond Campus

Across colleges and branches, AASTMT translated global warming science into practical community learning. The Climate Change & Water Management (UNR1601) program welcomed broad participation to build adaptation capacity for water resources under climate stress, while cross-college Meteorology courses strengthened early-warning skills for flood and drought. The MSc in Smart Environmental Management of Climate Change (SECCM) extended this pathway, equipping graduates to reduce CO₂/GHG impacts through evidence-based mitigation and climate policy.



Meteorology Course At AASTMT: Building Capacity For Climate Risk Monitoring And Early Warning Systems

The Meteorology Course at AASTMT equips students with critical skills for monitoring climate risks and managing early warning systems. By covering climate change patterns, CO₂ emissions, and extreme weather forecasting, the course supports local and regional governments in disaster preparedness and mitigation efforts. Graduates are trained to provide technical expertise for early warnings, enhancing community resilience and informing government strategies for climate-induced risks. This initiative underscores AASTMT's commitment to climate risk reduction and cooperative planning for climate resilience.

Table 4

Code	Title	Prerequisite
MS014	Disaster Planning and Emergency Plan	MS013
MS016	Disaster Planning & Disaster Recovery	MS014
MS017	Disaster Recovery	MS016
MS018	Disaster Recovery Plan	MS017
MS019	Disaster & MS018	MS018, MS019
MS020	Disaster Recovery Plan	MS019
MS021	Disaster Recovery Plan	MS020
MS022	Disaster Recovery Plan	MS021
MS023	Disaster Recovery Plan	MS022
MS024	Disaster Recovery Plan	MS023
MS025	Disaster Recovery Plan	MS024
MS026	Disaster Recovery Plan	MS025
MS027	Disaster Recovery Plan	MS026
MS028	Disaster Recovery Plan	MS027
MS029	Disaster Recovery Plan	MS028
MS030	Disaster Recovery Plan	MS029
MS031	Disaster Recovery Plan	MS030
MS032	Disaster Recovery Plan	MS031
MS033	Disaster Recovery Plan	MS032
MS034	Disaster Recovery Plan	MS033
MS035	Disaster Recovery Plan	MS034
MS036	Disaster Recovery Plan	MS035
MS037	Disaster Recovery Plan	MS036
MS038	Disaster Recovery Plan	MS037
MS039	Disaster Recovery Plan	MS038
MS040	Disaster Recovery Plan	MS039
MS041	Disaster Recovery Plan	MS040
MS042	Disaster Recovery Plan	MS041
MS043	Disaster Recovery Plan	MS042
MS044	Disaster Recovery Plan	MS043
MS045	Disaster Recovery Plan	MS044
MS046	Disaster Recovery Plan	MS045
MS047	Disaster Recovery Plan	MS046
MS048	Disaster Recovery Plan	MS047
MS049	Disaster Recovery Plan	MS048
MS050	Disaster Recovery Plan	MS049
MS051	Disaster Recovery Plan	MS050
MS052	Disaster Recovery Plan	MS051
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MS097	Disaster Recovery Plan	MS096
MS098	Disaster Recovery Plan	MS097
MS099	Disaster Recovery Plan	MS098
MS100	Disaster Recovery Plan	MS099

Table 5

Code	Title	Prerequisite
MS010	Disaster Recovery Plan	MS010
MS011	Disaster Recovery Plan	MS011
MS012	Disaster Recovery Plan	MS012
MS013	Disaster Recovery Plan	MS013
MS014	Disaster Recovery Plan	MS014
MS015	Disaster Recovery Plan	MS015
MS016	Disaster Recovery Plan	MS016
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MS100	Disaster Recovery Plan	MS100



A Shared Roadmap with the Community

AASTMT issued a public Climate Action Plan (2024) and engaged stakeholders in open dialogues to align low-carbon energy, energy efficiency, and climate-resilient infrastructure with local priorities. Seminars with the High Institute of Public Health brought the plan's CO₂-reduction pathways into the public health arena, while World Environment Day activities on Green Environment & Green Tourism translated carbon footprint reduction and adaptation measures into accessible, community-facing practice. Formal stakeholder letters and MoUs documented the sharing of plan elements with government and community groups.



AASTMT Participates In High Institute Of Public Health Seminar On "Facing Climate Change: Challenges And Solutions For A Sustainable Future"



Preparedness and Early Warning, Co-Designed

Community safety advanced through coordinated planning with public bodies and regional networks. At COP29, AASTMT—alongside the League of Arab States—convened a regional forum to align early-warning and adaptation priorities for coastal/marine communities. The Sustainable Shipping Forum (COP28 UAE) connected low-carbon fuels, energy efficiency, and port resilience to disaster-readiness in maritime systems, while EGPES engagement coordinated mitigation and transition pathways with ministries and industry—turning research into operating practice for communities most exposed to climate risks.



AASTMT was proud to participate in the Egypt Energy Show (EGYPES),

Government Partnerships in Action

AASTMT’s engagement also meant informing and supporting government with data, tools, and design capacity. The AI for Sustainability workshop at the League of Arab States explored analytics for CO₂ reduction, early-warning, and evidence-based climate policy. The Environmental Monitoring & Climate Change Laboratory provided meteorological, air-quality, and coastal datasets to authorities for decision-making on adaptation and mitigation. Through RURALITIES, AASTMT trained local and regional authorities to apply climate-risk analytics and early-warning design for rural and coastal communities, strengthening resilience where it is needed most.



Environmental Monitoring and Climate Change Laboratory



Ruralities

RURALITIES- CLIMATE SMART, ECOSYSTEM-ENHANCING AND
KNOWLEDGE-BASED RURAL EXPERTISE AND TRAINING CENTRES

D4.8 RURALITIES WEBSITE

Horizon Europe Grant agreement: 101060876

20/03/2023 by Ioanna Thomatou
Version 1.0



Civil-Society and Youth as Co-Creators

With NGO partners, AASTMT brought climate education directly to neighborhoods and youth networks. The AASTMT × Obyan MoU embedded renewable energy education and CO₂ reduction projects in student pathways, while the AASTMT × EPROM collaboration delivered professional learning and outreach on sustainability, mitigation, and adaptation. Additional NGO-led school and community engagements-built climate literacy and practical early-warning know-how—broadening participation in the low-carbon transition and strengthening community resilience.



اليوم الثالث عشر

تقوم الشركة بالتعاون مع كلية الهندسة والتكنولوجيا - المقر الرئيسي - الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري بعمل حملات توعوية وورش عمل تاريخية وتنظيم مبادرات وأهداف التنمية المستدامة والتي تتناغمها الخطة الإستراتيجية المصرية (رؤية مستعد 2030) لتصل على الأبعاد الثلاثة للتنمية المستدامة: البعد الاقتصادي والبعد الاجتماعي والبعد البيئي وكذلك دعم المشروعات التي تدعم هذه الرؤية لتقليل الانبعاثات والحد من مخاطر الاحتباس الحراري.

اليوم الرابع عشر

الالتزامات المالية :-

تلتزم الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري بموجب هذه الاتفاقية بتقديم منح جزئية بنسبة 25% من إجمالي الرسوم الدراسية للتراسين على أن تُدفع هذه المنحة للشركة بشرط ألا يحصل التراسين على أي منح أو نسب خصم أخرى شريطة ألا يقل عدد التراسين عن 25 تراس لكل فصل دراسي على حدة ويام دفع المنحة المشترك إليها بعد شهر من انتهاء المدّة المسموح بها للتسجيل وذلك مقلل :
- الترتيب العائلي والتربص من قبل المشتملين من شركة ايرووم لنسبة 25 % من ساعات التربص للطلوبه
- مشاركة ومساعدة شركة ايرووم في التسويق للتشوية

اليوم الخامس عشر

- يسري العمل بهذه الاتفاقية من تاريخ التوقيع عليها ولتدّة سنتين متتاليتين غير قابلة للتجديد إلا بإتفاق الطرفين وتوقيع إتفاق جديد.
- يحق لأي طرف من الطرفين إنهاء متكررة التفاعل في أي وقت في حالة مخالفة الشرف الأخر للادوة كما يجوز إنهايتها بإتفاق الطرفين.
- لا ينشأ عن توقيع هذه الاتفاقية أي إلتزام مالية أو قانونية على أي طرف نحو الأخر.
- تحورت هذه الاتفاقية من نسختين أصل بيد كل طرف نسخة موقمة لتعمل بمقتضاها عند التزوم.

أصبح
1433

طرف ثاني

الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري
الأستاذ الدكتور/إسماعيل عبد الغفار
رئيس الأكاديمية

طرف أول

الشركة المصرية لتشغيل وصيانة المشروعات (ايبروم) الكيميائية / محمد عبد بركات
رئيس مجلس الإدارة والعضو المنتدب

**اتفاقية تعاون مشترك
بين كلاً من
الشركة المصرية لتشغيل وصيانة المشروعات (ايبروم)
و
قسم الهندسة الكيميائية والبتروكيميائية – كلية الهندسة
والتكنولوجيا (المقر الرئيسي)
الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري**




11 من 577



A Culture of Net-Zero, Open to the Public

Community engagement was matched by transparent institutional action. The 2024 Carbon Emissions Reduction & Sustainability Progress Report opened our Scopes 1 & 2 and selected Scope 3 trends to the public, showing measurable GHG/CO₂ reductions against baseline years. Companion reporting—Insights into Energy Consumption and Carbon Emissions 2024—documented growth in low-carbon energy (e.g., solar PV) and declining energy-use intensity, while campuswide policies and learning programs made net-zero a shared culture, not just a goal. External recognitions (e.g., QS Sustainability 2024, UI GreenMetric 2024) affirmed this trajectory and helped signal to partners that AASTMT’s community commitments are backed by accountable practice.

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2018-2024 Electric Energy Consumption in AASTMT Alex. Campuses


ESG - Environmental, Social and Governance

Net-Zero Commitment

Race to Zero – AASTMT commitment

The Arab Academy for Science, Technology and Maritime Transport (AASTMT) is proud to be an active participant in the Race to Zero Campaign, a global initiative led by the United Nations Framework Convention on Climate Change (UNFCCC). This campaign mobilizes a coalition of non-state actors—including businesses, cities, regions, financial institutions, and academic institutions—in the shared mission to achieve a healthy, resilient, zero-carbon world.

Race to Zero is the largest global alliance of non-state actors committed to achieving net-zero carbon emissions by 2050 at the latest, in alignment with the Paris Agreement and the IPCC's recommendation to limit global warming to 1.5°C above pre-industrial levels.



Through these community-centered programs, AASTMT made significant strides in advancing SDG 13 by engaging students, community members, and local organizations in sustainable practices and climate adaptation. These collaborative efforts have built a foundation for a climate-resilient, environmentally conscious society, reflecting AASTMT's dedication to sustainable community development.

Events

AASTMT's 2023–2024 events translated climate change science into community practice, connected CO₂/greenhouse gas (GHG) emissions reduction to local priorities, and turned partnerships into on-the-ground mitigation and adaptation outcomes. What follows highlights flagship activities hosted by AASTMT or led with AASTMT as convener—each aligned to the figures you'll insert.

Education & Skills Events

AASTMT advanced community-facing climate literacy through hands-on learning. The Climate Change & Remote Sensing Applications (Aug 2024) training built practical early-warning and flood/drought assessment skills for water resources monitoring. Contributions to the Vision 2030 Forum brought students and residents into climate policy dialogue on mitigation and adaptation pathways. The Green Peace & Sustainable Resilience Forum extended this work on campus, reinforcing everyday CO₂ reduction behaviors and a culture of climate change awareness that travels beyond the classroom.



Public Roadmap Dialogues

After publishing the Climate Action Plan (2024), AASTMT engaged the community in open, practical conversations about low-carbon energy, energy efficiency, and adaptation. World Cities Day 2024 sessions helped city partners translate CO₂/GHG targets into climate-smart urban actions, while “Towards Egypt’s Energy Vision 2030” convened ministries and practitioners to connect plan pathways to sector priorities. A publicly accessible Climate Action Plan webpage ensured residents and stakeholders could follow progress and participate in shrinking the campus and community carbon footprint.



Coordinating for Risk & Resilience

AASTMT convened platforms that align disaster risk planning with operational realities. At Arab Day for Disaster Risk Reduction (Mar 2024), partners refined protocols for sea-level rise, flood, and drought, strengthening inter-institutional early-warning systems. The MARLOG plenary linked low-carbon maritime operations and energy efficiency to disaster-ready logistics, while the dedicated “Crisis & Disaster Management in Arab Countries” session turned research into procedures communities can use—so those most exposed to climate risks benefit first.



Direct Support to Government

AASTMT informed and supported public decision-making with data and design capacity. The AI for Sustainability workshop at the League of Arab States explored analytics for CO₂ reduction, early-warning models, and evidence-based climate policy. The Environmental Monitoring & Climate Change Laboratory supplied meteorological, air-quality, and coastal datasets for adaptation planning. Through PRIMA 2024 Info-Day, AASTMT helped build a WEFE pipeline of government-ready proposals, tightening the loop between science, governance, and community protection.



Civil-Society & Youth Partnerships

With NGO partners, AASTMT expanded community-level learning and action. The UniGreen national competition (with Life Makers Foundation and EU support) mobilized youth around GHG/CO₂ emissions reduction, renewable energy, waste solutions, and WEFE innovation. A Coastal Cities NGO workshop connected civil society, researchers, and policymakers on sea-level and erosion challenges, strengthening adaptation literacy and practical early-warning know-how. The INVOLVE consortium broadened ecosystem-based adaptation and land/resource education for a more inclusive low-carbon transition.



Net-Zero Governance Milestones

Institution-facing events made carbon neutrality tangible to partners and the public. AASTMT reaffirmed its Race to Zero / net-zero pledge, showcased new solar PV deployments that cut CO₂/GHG and the institutional carbon footprint, and conducted rollout sessions for a centralized energy management system that tracks consumption and emissions in real time—demonstrating measurable, operational mitigation and steady progress toward a low-carbon campus.



2024 AASTMT Insights: Insights into Energy Consumption and Carbon Emissions

To assess AASTMT's progress in energy efficiency and carbon emissions reductions, it is essential to establish a baseline using data from 2018 to 2022. This period serves as a foundation for future energy consumption and emissions and allows for a clear comparison with data from 2023 and 2024.

1. Energy Consumption

AASTMT Energy Research Unit and Energy Management Committee put forward several strategies for regular online monitoring of energy consumption in all AASTMT campuses. Insights of energy consumption were prepared by AASTMT Energy Sustainability Team and AASTMT Energy Management Committee based on the activities of the Maintenance and Electrical Facilities Department and Project Management in Abu Qir and the mechanism for follow-up and measurement of performance indicators (KPIs) as well as 2024 rationalization and renovation plans.

> Electrical Energy consumption in all Alexandria campuses

First, **energy consumption in all campuses of AASTMT Alexandria branch** is first analyzed since this branch experiences the highest consumption due to its multiple campuses and largest number of staff and students. **Figure 1** shows the **total energy consumption in the entire Alexandria Campuses** within the period (2018-2024). It is clear that comparing the latest consumption in 2024 (10498097 kWh) by the baseline in 2018 (12698059 kWh) results in a total of **17.33% reduction in energy consumption**.

2018-2024 Electric Energy Consumption in AASTMT Alex. Campuses

Upcoming Goals

Building on the 2023–2024 gains, AASTMT will deepen SDG 13: Climate Action by scaling low-carbon energy, expanding climate change education, strengthening early-warning and disaster co-planning, and tightening CO₂/greenhouse gas (GHG) emissions governance across campuses and communities. (A separate internal crosswalk will map each goal to the relevant evidence set for submission.)

1. **Campus Energy Transition—From Measurement to Megawatts:** Add new solar PV arrays and targeted efficiency upgrades across priority rooftops/carparks; extend the centralized energy-management system to building-level dashboards. Outcomes: higher shares of low-carbon energy, lower energy-use intensity, and measurable CO₂/GHG reductions on the path to carbon neutrality.
2. **Public Climate Action Plan Update & Open Data:** Publish an updated Climate Action Plan with a public web page that tracks CO₂/GHG trends, low-carbon projects, and adaptation actions by campus. Launch a simple open “data room” for annual Scopes 1 & 2 and selected Scope 3 metrics to strengthen transparency and community co-ownership.
3. **Education at Scale—Micro-credentials & Community Labs:** Offer stackable micro-credentials in early-warning, remote sensing, and climate policy; expand community access to the Climate Change & Water Management and meteorology practicums. Aim: practical mitigation/adaptation skills for students and residents in coastal/marine and urban contexts.
4. **Government Support—Applied Early-Warning Pilots:** Co-design two applied early-warning pilots with public authorities (e.g., coastal flood, urban heat/flood), using AASTMT’s Environmental Monitoring & Climate Change Lab data. Deliver operational



dashboards, protocols, and short trainings that convert analytics into actionable climate policy.

5. **Co-operative Disaster Planning—City & Maritime Exercises:** Run joint table-top and field exercises with municipalities and maritime stakeholders to stress-test sea-level rise, flood, and drought response. Integrate low-carbon port measures (efficiency, routing, fuels) so mitigation and preparedness advance together.
6. **Civil-Society Partnerships—Youth to Workforce Pipeline:** Scale NGO collaborations into a yearly sequence of bootcamps, service projects, and internships on GHG/CO₂ reduction, renewable energy, waste solutions, and WEFE innovation. Target more graduates with community hours and portfolio projects in low-carbon implementation.
7. **Maritime Decarbonization Clinics:** Host hands-on clinics for shipping and port operators on emissions tracking, weather routing, energy-efficiency retrofits, and fuel-transition planning—paired with concise policy briefings for regulators. Expected benefits: fuel savings, CO₂ cuts, and stronger disaster-readiness in logistics chains.
8. **Scope 3 Action Plan—Commute, Procurement, Waste:** Complete a focused Scope 3 baseline (business travel, commuting, priority procurement, waste) and launch reduction levers: telepresence-first policies, fleet electrification pilots, supplier codes, and campus waste diversion. Report annually so the community can see its contribution to shrinking the carbon footprint.
9. **Research & Dissemination—Practice-Ready Knowledge:** Grow the climate research pipeline (e.g., MACI special issues) by pairing each publication with an applied brief and mini-training for municipal, port, NGO, and industry practitioners—turning evidence on mitigation and adaptation into field-ready guidance.

Through these upcoming projects and partnerships, AASTMT reaffirms its dedication to advancing climate action, supporting community resilience, and contributing to sustainable development on both regional and global scales.