

**Category**

Best EcoHealth Solution

**Organization/Company Name**

**Provide the official name of your company or organization.**

Montefiore Einstein

**Overview (Up to 500 words)**

**Provide key information about the company, including its origins, mission, and core philosophy.**

**Describe the solution, impact, and sector focus (e.g., water management, renewable energy, circular economy, waste management, sustainable agriculture, net-zero initiatives, etc.).**

Montefiore Einstein stands as a premier academic medical center transforming healthcare sustainability through its comprehensive C.A.R.E. framework (Climate Action, Academic Leadership, Regional Collaboration, Employee Engagement). Founded over 125 years ago, our organization serves 2+ million individuals across the Bronx, Westchester, and Hudson Valley, with 2,961 hospital beds, 300+ care locations, and 6,000+ physicians and clinicians.

Our mission-to heal, teach, discover, and advance community health-drives our pioneering approach to sustainable healthcare delivery. As one of the first hospitals in NYC to install combined heat and power (CHP) technology in 1993, we've consistently led healthcare decarbonization efforts.

Our comprehensive sustainability solution addresses multiple sectors: energy management through building electrification and efficiency upgrades; waste management via circular economy principles including medical device reprocessing and biodigester programs; sustainable transportation through EV charging infrastructure expansion; and clinical sustainability initiatives reducing healthcare's environmental footprint.

Key innovations include our anesthetic gas reduction program achieving 93% desflurane elimination, our medical device reprocessing partnership diverting 140,000+ devices from landfills, and our biodigester program preventing 50.8 metric tons of CO2 equivalent emissions annually at our Moses Campus alone.

Our Office of Sustainability, established with dedicated leadership and governance structures, coordinates system-wide initiatives while our network of Green Teams drives grassroots engagement across departments. We've integrated planetary health education into medical curricula, preparing future physicians to address climate-health connections.

Through strategic partnerships with organizations like the Bronx River Alliance, Wildlife Conservation Society, and NYSERDA's Clean Green Campuses initiative, we extend our impact beyond our walls, addressing environmental justice and community resilience in historically disadvantaged areas.

Our achievements include 25% reduction in energy intensity and 30% reduction in greenhouse gas emissions from our 2007 baseline, positioning us to meet our commitments to the NYC Carbon Challenge, HHS Climate Pledge, and NYSIF Climate Action Pledge targeting 50% emissions reduction by 2030 and net-zero by 2050.

words remaining :

198

**Climate Health & Alignment with UN SDGs / National Policy Guidelines (500 words)**

**Please explain how your innovation mitigates or adapts to climate-related health risks and aligns with the United Nations Sustainable Development Goals (SDGs) and national climate policies.**

Montefiore Einstein's climate health initiatives directly address multiple UN Sustainable Development Goals while aligning with national climate policies and public health imperatives. Our comprehensive approach recognizes climate change as the defining health challenge of our time, with healthcare contributing 8.5% of US carbon emissions.

**SDG Alignment:**

**SDG 3 (Good Health & Well-being):** Our climate initiatives reduce air pollution, improve indoor air quality through HVAC upgrades, and address climate-sensitive health conditions disproportionately affecting our Bronx community.

**SDG 7 (Affordable & Clean Energy):** Our CHP system and building electrification reduce fossil fuel dependence while our 100+ planned EV charging stations promote clean transportation.

**SDG 11 (Sustainable Cities):** Our community partnerships address urban heat islands, air quality, and environmental justice in vulnerable neighborhoods.

**SDG 12 (Responsible Consumption):** Our circular economy initiatives, including 1.4M+ pounds of e-waste recycling and medical device reprocessing, demonstrate sustainable resource management.

**SDG 13 (Climate Action):** Our 30% emissions reduction and net-zero commitments provide measurable climate mitigation.

**National Policy Alignment:**

Our initiatives align with the Biden Administration's climate agenda, including the HHS Climate Action Pledge committing to 50% emissions reduction by 2030. Our participation in NYC's Carbon Challenge supports municipal climate goals, while our NYSIF Climate Action Plan demonstrates private sector leadership in state-level climate initiatives.

**Climate-Health Risk Mitigation:**

We address specific climate health risks through targeted interventions:

**Heat-related illness prevention:** Enhanced HVAC systems and community cooling initiatives protect vulnerable populations during extreme heat events

**Air quality improvement:** Transitioning from high-emission anesthetic gases and promoting clean transportation reduces respiratory health risks

**Vector-borne disease preparedness:** Our integrated curriculum includes climate-health education preparing healthcare workers for changing disease patterns

**Mental health support:** Our Associate Wellness programs address climate anxiety and promote nature-based therapeutic interventions

**Innovation in Climate-Health Education:**

Through Albert Einstein College of Medicine, we've integrated planetary health into medical curricula, creating the next generation of climate-informed healthcare professionals. Our Environmental Advocacy Committee, led by residents and faculty, conducts award-winning research quantifying environmental impacts of clinical practices.

**Community Resilience:**

Our partnerships with Bronx River Alliance and community organizations address environmental justice, recognizing that climate impacts disproportionately affect communities of color and low-income populations we serve. Our tree-planting initiatives, watershed restoration, and green space development directly improve community health outcomes.

**Regulatory Compliance:**

We exceed NYC Local Law 97 requirements through strategic building improvements, avoiding projected \$7.8M in penalties while improving patient care environments. Our comprehensive climate risk assessment framework ensures healthcare continuity during extreme weather events.

This integrated approach demonstrates how healthcare institutions can simultaneously advance public health, environmental stewardship, and climate resilience while maintaining excellent patient care standards.

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### **Measurable Impact (300 words)**

**Explain how you benchmark success and impact using scientific validation and quantifiable metrics where possible (e.g., peer-reviewed publications, Life Cycle Assessment (LCA) data, partnerships, net-zero targets, CO<sub>2</sub> reduction, resource efficiency, waste diversion rates, improved health outcomes, etc).**

Montefiore Einstein demonstrates quantifiable sustainability impact through rigorous measurement and third-party verification across multiple domains:

Emissions & Energy Performance:

30% reduction in greenhouse gas emissions intensity (60.06 to 42.04 lbs CO<sub>2</sub>e/sq ft) from 2007 baseline

25% reduction in energy intensity (509.52 to 383.28 kBtu/sq ft) over same period

On track for 30.03 lbs CO<sub>2</sub>e/sq ft target by 2025, supporting 50% reduction by 2030 commitment

Clinical Sustainability Achievements:

93% reduction in desflurane usage, eliminating high-GWP anesthetic gases (2,500x CO<sub>2</sub> equivalent)

41% reduction in isoflurane usage across all campuses (2015-2023)

140,000+ medical devices reprocessed, diverting 39,392 pounds from landfills with \$700,000 cost savings

Waste Diversion & Circular Economy:

1.4M+ pounds of e-waste processed since 2015 partnership with EWASTE+

143,100 pounds organic waste diverted annually through Moses Campus biodigester, avoiding 50.8 metric tons CO<sub>2</sub> equivalent

21,721+ hard drives securely destroyed through responsible e-waste management

Transportation & Infrastructure:

18 Level 2 EV charging ports operational with 100+ additional stations planned for 2024-2025

Fleet efficiency improvements achieving up to 50 MPG through hybrid vehicle adoption

Academic & Research Impact:

SHEA Spring 2025 award-winning research quantifying environmental impact of clinical practices

Six medical school courses now integrate planetary health content

Einstein Sustainability Club achieving improved Planetary Health Report Card scores

Financial Performance:

\$7.8M projected savings through Local Law 97 compliance optimization

\$700,000+ savings through device reprocessing program

\$1M+ annual credits through NYSIF Climate Action Program participation

#### Third-Party Verification:

Practice Greenhealth Environmental Excellence Partner for Change Awards (6 locations)  
Third-party GHG inventory verification following AA1000AS standards  
NYSERDA Clean Green Campuses membership demonstrating commitment to clean energy transition

#### Community Health Metrics:

70 associates enrolled in sustainability initiatives through Earth Day events  
46 participants in monthly Sustainability Open Hours program  
35+ member Environmental Advocacy Committee driving clinical sustainability research  
words remaining :

10

#### **Current Stage & Market Potential (500 words)**

**Describe the current stage and potential for scaling your solution to new markets, industries, or geographies. If any, include details on market demand, regulatory considerations, barriers to scale, adoption strategy and long-term sustainability.**

Montefiore Einstein's sustainability program represents a mature, fully operational model ready for healthcare sector scaling. Currently in advanced implementation phase across our 15+ facility network, we've moved beyond pilot programs to system-wide integration of sustainable practices spanning clinical operations, infrastructure, education, and community engagement.

##### Current Implementation Stage:

Our comprehensive approach operates across multiple domains simultaneously: energy management through building electrification and efficiency upgrades; waste reduction via established circular economy partnerships; clinical sustainability through anesthetic gas elimination and device reprocessing; transportation decarbonization through EV infrastructure; and academic integration through medical curriculum enhancement. This multi-pronged strategy demonstrates feasibility of large-scale healthcare sustainability transformation.

##### Market Demand & Scalability:

Healthcare sustainability market demand is accelerating driven by regulatory requirements (NYC Local Law 97, state climate mandates), supply chain pressures, and growing recognition of healthcare's environmental impact. Our model addresses critical healthcare sector needs: reducing operational costs while improving patient outcomes, meeting regulatory compliance requirements, and preparing healthcare workers for climate-health challenges.

Key scalability factors include our replicable governance structure with dedicated sustainability office and cross-departmental engagement; standardized measurement protocols using third-party verification; proven financial models demonstrating cost savings alongside environmental benefits; and academic integration preparing future healthcare professionals for sustainability leadership.

##### Geographic & Industry Expansion:

Our approach translates across healthcare settings: urban academic medical centers, community hospitals, outpatient facilities, and long-term care. Geographic expansion opportunities exist particularly in climate-vulnerable regions requiring healthcare resilience enhancement. International applications include healthcare systems facing stringent emissions requirements or resource constraints.

##### Regulatory Landscape:

Regulatory trends favor our model: increasing carbon pricing mechanisms, building efficiency requirements, healthcare sustainability reporting mandates, and climate disclosure requirements. Our

proactive compliance positions us advantageously while demonstrating cost-effective approaches to regulation adherence.

#### Barriers & Mitigation Strategies:

Primary barriers include initial capital requirements for infrastructure upgrades, organizational change management, and technical expertise needs. We address these through phased implementation approaches, demonstrated ROI calculations, staff education programs, and strategic partnerships reducing individual institutional burden.

#### Technology Integration:

Our model incorporates emerging technologies: advanced building automation systems, renewable energy integration, waste-to-energy systems, and digital platforms for sustainability tracking.

Technology partnerships enable rapid scaling without requiring individual institutions to develop expertise independently.

#### Long-term Sustainability:

Financial sustainability derives from operational cost savings, regulatory penalty avoidance, grants and incentives, and improved competitive positioning. Our \$7.8M projected savings through compliance optimization demonstrates immediate financial benefits while positioning for long-term operational advantages.

#### Strategic Partnerships:

Partnerships with organizations like Practice Greenhealth, NYSERDA, and equipment vendors create ecosystem supporting rapid adoption. Academic partnerships through medical education ensure workforce preparation for sustainable healthcare delivery.

#### Market Leadership Position:

As early adopter with proven results, we're positioned to lead healthcare sustainability market development through consulting services, best practice sharing, and partnership opportunities. Our comprehensive approach addresses full spectrum of healthcare sustainability challenges, creating competitive advantage in increasingly regulation-driven market environment.

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### **Staff and Advisors (500 words)**

**Describe your team's expertise (e.g., academic standing, intellectual property contributions, research collaborations, and professional communications). Highlight the team's role in innovation, policy influence, and industry leadership.**

Montefiore Einstein's sustainability leadership combines executive oversight, dedicated expertise, academic innovation, and grassroots engagement, creating a comprehensive team driving healthcare sector transformation.

#### Executive Leadership:

Edward Pflieger, PE, Senior Vice President of Facilities and Real Estate, serves as executive sponsor providing strategic guidance and organizational alignment. Brian Baldeo, Associate VP of Engineering, leads implementation as designated executive for our HHS Climate Action and NYSIF Climate Action pledges, ensuring accountability and resource allocation for ambitious decarbonization targets.

#### Dedicated Sustainability Expertise:

Aharon Kestenbaum, Director of Energy and Sustainability, brings specialized knowledge in energy management, carbon reduction strategies, and regulatory compliance. His leadership of our Office of Sustainability ensures coordinated implementation across our 15+ facility network. Wesley Kra, Liaison for Green Initiatives, drives employee engagement and grassroots sustainability initiatives, fostering organizational culture change essential for long-term success.

#### Clinical Leadership & Innovation:

Dr. Irene Osborn, Director of Non-Operating Room Anesthesia and Professor of Anesthesiology, exemplifies our clinical sustainability leadership. Her pioneering work eliminating high-GWP anesthetic gases achieved 93% desflurane reduction while maintaining clinical excellence. Dr. Osborn's leadership extends beyond her department through educational initiatives, including sustainability-focused grand rounds and Green Team development.

Academic Innovation Team:

Our medical education integration leverages faculty expertise including Dr. Mark Rubin (Gastroenterology), Dr. Joel Bumol (Family Medicine), and Dr. Janice Thomas John (Pediatrics), who collaborate with student leaders to embed planetary health content into core curricula. This academic integration prepares future healthcare professionals for climate-health challenges while advancing sustainability research.

Student & Resident Leadership:

Jordan Giordano and Hyun Song, Einstein Sustainability Club leaders, demonstrate next-generation commitment to climate-health integration. Their curricular development work and research initiatives, including award-winning presentations at national conferences, position our institution at the forefront of medical education innovation.

The Environmental Advocacy Committee, co-founded by Dr. Rahee Nerurkar and Dr. Emily Fishbein (PGY3 residents), represents growing resident engagement in sustainability research and practice, with 35+ active members across medical specialties conducting groundbreaking research on environmental impacts of clinical practices.

Technical & Operational Expertise:

Our engineering team, including Andrew Nembhard (Chief Technical Officer, Anesthesiology), provides essential technical expertise enabling innovative solutions like anesthetic gas elimination and building efficiency optimization. Environmental Health and Safety leadership under Dr. Jared Shapiro ensures compliance while advancing sustainability objectives.

External Advisory Relationships:

Strategic partnerships with organizations like Practice Greenhealth, NYSEERDA, and academic institutions provide ongoing advisory support and best practice sharing. Our collaboration with leading sustainability consultants (Wendel Energy, NORESKO, Pearl Street) ensures access to cutting-edge technical expertise.

Research & Publications:

Our team contributes to sustainability literature through peer-reviewed publications, conference presentations, and award-winning research. Recent SHEA Spring 2025 award recognition for environmental impact research demonstrates our academic standing and intellectual property contributions to healthcare sustainability field.

Policy Influence:

Through participation in NYC Carbon Challenge, NYSIF Climate Action Pledge, and HHS Climate Initiative, our leadership influences healthcare policy development while demonstrating practical implementation approaches for regulatory compliance and voluntary sustainability commitments.

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### **Financial Structure. (500 words)**

**Describe how your innovation is funded and sustained (e.g., key investors, funding sources, financial stakeholders, royalties, grants, revenue-sharing agreements, strategic partnerships such as academic institutions, equity groups, corporate alliances, and angel investors, etc.).**

Montefiore Einstein's sustainability program operates through a diversified financial structure combining operational savings, grants, incentives, strategic partnerships, and mission-aligned investments, creating a self-sustaining model for healthcare decarbonization.

Revenue-Generating Initiatives:

Our sustainability program generates substantial financial returns through multiple streams. Medical device reprocessing partnership with Medline ReNewal has yielded \$700,000+ in cost savings while diverting 140,000+ devices from landfills. Energy efficiency improvements deliver ongoing operational savings, with projected \$7.8M in Local Law 97 penalty avoidance through strategic compliance optimization.

#### Grant Funding & Incentives:

We leverage public sector support through NYSEDA FlexTech-funded energy audits, Con Edison efficiency incentives totaling \$341,254.60 across multiple projects, and NYSIF Climate Action Program providing \$1M+ annual credits for verified sustainability achievements. These programs reduce capital requirements while accelerating implementation timelines.

#### Strategic Partnerships:

Cost-sharing partnerships minimize individual investment requirements. Our EWASTE+ partnership eliminates e-waste disposal costs while providing revenue sharing opportunities. Biodigester installations leverage vendor financing with operational savings guarantees. EV charging infrastructure development utilizes private sector investment eliminating capital requirements while generating revenue sharing arrangements.

#### Academic Integration Funding:

Medical education initiatives receive support through Albert Einstein College of Medicine academic budgets, NYSEDA Clean Green Campuses membership, and student organization funding including AMA Reimagining Residency microgrants supporting Environmental Advocacy Committee research initiatives.

#### Infrastructure Investment Strategy:

Capital projects utilize blended financing approaches: utility incentives reducing upfront costs, energy service company (ESCO) arrangements providing guaranteed savings, and internal capital allocation based on demonstrated ROI calculations. Our CHP system investment in 1993 exemplifies long-term infrastructure strategy generating ongoing operational advantages.

#### Operational Budget Integration:

Sustainability initiatives integrate into operational budgets through department-specific allocations: engineering for infrastructure improvements, clinical departments for sustainable practice implementation, and education for curriculum development. This distributed approach ensures program sustainability while demonstrating cost-effectiveness across organizational functions.

#### Community Partnership Funding:

Regional collaboration initiatives leverage community development funding, environmental justice grants, and municipal partnership opportunities. Our Bronx River Alliance collaboration and community tree-planting initiatives access federal environmental justice funding while supporting local economic development.

#### Risk Mitigation & Returns:

Financial risk mitigation includes diversified funding sources, proven ROI calculations, and regulatory compliance benefits. Our comprehensive approach generates multiple return streams: operational cost reductions, regulatory penalty avoidance, grant funding, incentive payments, and competitive advantages in increasingly regulation-driven healthcare market.

#### Scalability Financial Model:

Our approach demonstrates scalable financial structure: initial investment through grants and incentives, operational savings supporting program expansion, strategic partnerships reducing individual institutional burden, and proven ROI enabling replication across healthcare sector.

#### Long-term Sustainability:

Financial sustainability derives from embedded operational improvements, ongoing regulatory compliance benefits, and organizational culture change reducing future costs. Our multi-year commitments to climate action programs ensure continued financial returns while positioning for emerging opportunities in healthcare sustainability market.

#### Performance Metrics:

Financial performance tracking includes energy cost savings, waste disposal cost reductions, incentive payment receipts, and regulatory compliance cost avoidance, providing comprehensive financial justification for continued investment and program expansion.

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\*Kindly clearly label your files with company name and asset name.

#### Attached Files:

- [SustainabilityReport\\_DigitalPages\\_040225\\_v20\\_FINAL.pdf](#)
- [Albert Einstein College of Medicine.png](#)
- [2025 EEA Awards Logo.png](#)
- [Mount Vernon Hospital.png](#)
- [Moses Campus.png](#)
- [partnerforchange25.png](#)
- [New Rochelle Hospital.png](#)
- [Wakefield Campus.png](#)
- [systemforchange25.png](#)
- [Westchester Square Campus.png](#)

#### **Community & Social Impact (500 words)**

**Explain how your innovation benefits local communities, underserved populations, or public health (e.g., job creation, social equity, environmental justice, improved quality of life, tourism, etc.).**

Montefiore Einstein's sustainability initiatives deliver transformative social and environmental benefits across the Bronx, Westchester, and Hudson Valley, focusing on environmental justice, health equity, and economic development.

#### Environmental Justice & Health Equity:

Serving communities where 85% of discharges are Bronx residents, we confront climate risks disproportionately impacting low-income and minority populations. Our efforts reduce urban heat islands, improve air quality, and expand green spaces, mitigating healthcare-related environmental disparities.

#### Community Health & Climate Impact:

By eliminating anesthetic gases, promoting clean transportation, and upgrading building systems, we reduce air pollution and improve indoor environments. Our biodigester program alone prevents over 50 metric tons of CO<sub>2</sub> emissions annually, enhancing local air quality and public health.

#### Economic Development & Workforce Training:

Investments in energy efficiency, EV infrastructure, and waste reduction generate local jobs, engage regional contractors, and support a clean economy. Workforce development programs like our Green Team foster environmental expertise among healthcare staff.

#### Education & Partnerships:

Through Albert Einstein College of Medicine, we train future physicians to address climate-health challenges in underserved communities. Strategic partnerships-with Bronx River Alliance, Wildlife Conservation Society, and Mosholu Preservation Corporation-advance watershed restoration, housing, and environmental education.

#### Access, Resilience & Engagement:



EV infrastructure and shuttle services improve transportation access, while plant-based food programs promote health equity. Our climate preparedness ensures healthcare continuity during extreme events. Community engagement thrives through Earth Day events, wellness activities, and therapeutic horticulture.

Long-Term Commitment & Accountability:

We measure success through health outcomes, job creation, education metrics, and environmental improvements. Our work sets a replicable model for healthcare-driven sustainability, reinforcing our role as a community anchor and environmental justice leader.

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236

\*Kindly clearly label your files with company name and asset name.

Attached Files:

- [Montefiore Health System earns national recognition for environmental sustainability\\_Westfair Communications.pdf](#)

**Background information and need for drug / device**

**(please be as specific as possible in your description; limit 500 words)**

N/A

words remaining :

500

**History of the development of the solution/product \***

**(please be as specific as possible in your description; 500 words)**

N/A

words remaining :

500

**Why this drug or device is innovative, the broad implications for future research, and/or how it will improve the human condition \***

N/A

words remaining :

500

**Please provide appropriate references (PubMed, Abstract, Website) \***

N/A