

Ms. Luisa Santos, Board Member

Co-Sponsors: Ms. Perla Tabares Hantman, Chair  
Dr. Steve Gallon III, Vice Chair  
Ms. Lucia Baez-Geller  
Dr. Dorothy Bendross-Mindingall  
Ms. Christi Fraga  
Dr. Lubby Navarro  
Dr. Marta Pérez  
Ms. Maria Teresa Rojas

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**SUBJECT: REQUEST APPROVAL OF RESOLUTION NO. 21-010 OF THE SCHOOL BOARD OF MIAMI-DADE COUNTY, FLORIDA, ACKNOWLEDGING THE URGENCY OF ACHIEVING 100% CLEAN ENERGY USE BY 2030 FOR BETTER STUDENT HEALTH AND FINANCIALLY RESPONSIBLE STEWARDSHIP**

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**COMMITTEE: FACILITIES & CONSTRUCTION**

**LINK TO STRATEGIC BLUEPRINT: EFFECTIVE AND SUSTAINABLE BUSINESS PRACTICES**

Long-term changes in average weather patterns have come to define Earth’s local, regional and global climates. These changes are manifested by a broad range of observed effects, many of which impact Miami-Dade County on an alarmingly frequent basis. As a result, our residents are forced to mitigate the conditions of accelerated sea level and temperature rise, flooding and storm surges, and more intense heat waves and hurricanes in what is now considered the ‘Most Vulnerable Coastal City in the World’.<sup>1</sup> To heed not just a global call to action, but more poignantly that of a generation of students who have identified this as their top concern<sup>2</sup>, the Board and the District are uniquely poised to lead intentional conversations about the role we can play in leveraging the transformative and strategic change required for a sustainable future.

Together, buildings and their construction account for 36% of global energy use and 39% of energy-related carbon dioxide emissions annually with American K-12 schools emitting as much CO<sub>2</sub> as 18 coal-fired power plants.<sup>3</sup> In Miami-Dade County Public Schools (M-DCPS), apart from facilities construction and management, regular school operations contribute to climate change through utilities usage, transportation, and food services. When reviewed collectively, this District spends \$65 million on electricity, \$35 million on water, logs 13 million diesel bus miles and 16.5 million white fleet (maintenance and nutrition vehicles) miles and serves 45 million meals every year.

**Revised  
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M-DCPS School Operation's Department of Transportation and M-DCPS Facilities' Office of Design and Sustainability, in particular, have taken commendable steps towards sustainability-minded design standards, criteria and green initiatives that seek to address energy management systems and usage. However, there is no related Board policy to direct this important body of work in a unified and intentional way that works towards a dedicated goal. The development of comprehensive and informed policy and an implementation plan under the leadership of the Board can ensure that metrics are established, and the work of the District is supported across all zip codes as we move towards lowering our carbon footprint and reaping the benefits inherent in associated sustainability practices.

Those benefits include long term economic impact and substantial savings which can be reinvested into educational programs and services for students, and financial enhancements for employees. As an example, with the establishment of a proposed District-wide energy reduction target of 30%, the District could achieve \$20M in savings equating to 420 starting teacher salaries. In the case of NeoCity Academy in Osceola County, the first zero-net energy school in the state, the return on investment will be realized in 7.5 years with \$3.2M in savings over the next two decades. While the Osceola School District financed the installation of 650 solar panels through project reserves, there are other ways to off-set up-front costs like net metering and Guaranteed Energy Performance Contracts.

Perhaps the most timely and important benefit, however, will be that of increased well-being and air quality for the students, staff and school communities we serve. Research shows that children are especially vulnerable to the health effects of air pollution and young people in low-income communities and communities of color are disproportionately impacted. Studies have shown how poor building conditions such as physical defects, lack of proper ventilation, faulty heating and air conditioning systems and structural concerns contribute to poor air quality in schools, which in turn have been linked to a 10-20% increase in days away from school.<sup>4,5</sup> Equally alarming, students being transported in diesel buses are exposed to 23-46 times the cancer risk level considered significant under federal law<sup>6,7</sup> and learning outcomes are improved in school districts with reduced diesel exhaust exposure<sup>8,9</sup>. As we begin to understand the importance of reducing impacts of vector and airborne diseases and ventilation amidst the reality of COVID-19 and ahead of the Board's consideration of American Recovery Act funding utilization, we also converge upon an opportune moment to consider investing in the health and well-being of our students through the sustainability of our district's buildings, schools and vehicles.

Apart from Miami-Dade County's Office of Resiliency, lauded as the State's most advanced and progressive sustainability-minded office, local leadership and the following municipalities, working alongside long-standing community organizations and activists, have already taken action in adopting resolutions addressing climate change, sustainability policies, and/or committing to clean energy:

- Miami-Dade County Council Parent-Teacher-Student Association (M-DCC PTSA)
- The City of Miami
- The City Coral Gables
- The City of South Miami
- The City of Miami Beach
- The Village of Key Biscayne
- The Town of Surfside
- North Bay Village
- The Town of Cutler Bay
- The Village of Palmetto Bay

These organizations and municipalities, along with 170+ cities and 12 school districts nationwide, join in the Board's long-standing commitment to our environment, with affirmation seen through the passing of agenda items including, but not limited to:

- H-23 Support of a Joint Application to the U.S. Department of Housing and Urban Development Under Its Sustainable Communities Initiative by the South Florida Regional Planning Council and the Treasure Coast Regional Planning Council on Behalf of a Seven-County Area, School Board Member Dr. Marta Pérez (May 12, 2010)
- H-11 Request for Approval of Resolution No. 11-060 of the School Board of Miami-Dade County, Florida, recognizing the 2011 Student Winners of the Seventh Annual Community Image Advisory Board Clean Up and Green Up Poster Contest, School Board Chair Perla Tabares Hantman (May 11, 2011)
- H-2 Explore The Expansion of Environmental Educational Opportunities Available Through the District's Partnership With Dream In Green, School Board Chair Perla Tabares Hantman (October 16, 2013)
- H-4 Sea Level Rise, Academic Programming and Construction Design, School Board Member Dr. Martin Karp (April 25, 2018)
- B-5 Request Approval of Resolution No. 19-054 of the School Board of Miami-Dade County, Florida, Recognizing the Marine and Science Technology Academy, Recipient of the 2019 U. S. Department of Education Green Ribbon School Award, School Board Member Mari Tere Rojas (October 2, 2019)
- H-14 Miami-Dade County Public Schools Energy Cost Containment Program, School Board Member Mari Tere Rojas (August 9, 2017)
- H-3 Elimination of Food Waste and the Exploration of Food Sharing Programs, School Board Vice Chair Steve Gallon III (April 17, 2019)
- H-6 School Board Join in Promoting April 22, 2020 as Earth Day In Miami-Dade County Public Schools, School Board Chair Perla Tabares Hantman (January 17, 2020)

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This item seeks to reaffirm the Board's commitment to a financially and environmentally sustainable future through the authorization of Resolution No. 20-010 Acknowledging the Urgency of Achieving 100% Clean Energy Use by 2030 for Better Student Health and Financially Responsible Stewardship, the creation of a task force to develop policy recommendations, accountability processes, and an accompanying implementation plan by no later than the February 2022 School Board meeting, and participation in a School Board workshop.

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This item has been reviewed and approved by the School Board Attorney's office as to form and legal sufficiency.

<sup>1</sup>Cusick, D. 'Miami is the Most Vulnerable Coastal City Worldwide,' *Scientific American*, February 4, 2020, <https://www.scientificamerican.com/article/miami-is-the-most-vulnerable-coastal-city-worldwide/>

<sup>2</sup> Deloitte Millennial Survey 2020

<sup>3</sup> Abergel, T., Dean, B. and Dulac, J. United Nations Global Status Report 2017, [https://www.worldqbc.org/sites/default/files/UNEP%20188\\_GABC\\_en%20%28web%29.pdf](https://www.worldqbc.org/sites/default/files/UNEP%20188_GABC_en%20%28web%29.pdf)

<sup>4</sup> Majd, E., McCormack, M., Davis, M., Curriero, F., Berman, J., Connolly, F., ... & Koehler, K. (2019). Indoor air quality in inner-city schools and its associations with building characteristics and environmental factors. *Environmental research*, 170, 83-91.

<sup>5</sup> Shendell, D.G., Prill, R., Fisk, W., Apte, M., Blake, D., Faulkner, D. Associations between classroom CO2 concentrations and student attendance in Washington and Idaho, <https://pubmed.ncbi.nlm.nih.gov/15330793/>

<sup>6</sup> Solomon, G.M. et al. (January 2001). No Breathing in the Aisles: Diesel Exhaust in School Buses. National Resources Defense Council. <https://www.nrdc.org/sites/default/files/schoolbus.pdf>

<sup>7</sup> Adar, SD, Davey, M, Sullivan, JR, Compher, M, Szpiro, A, Liu, Sally LJ (Oct. 2008) Predicting Airborne Particle Levels Aboard Washington State School Buses. <https://pubmed.ncbi.nlm.nih.gov/18985175>

<sup>8</sup> Austin, W., Heutel, G., & Kreisman, D. (June 2019). School bus emissions, student health and academic performance. *Economics of Education Review*. 70: 109-126. <https://doi.org/10.1016/j.econedurev.2019.03.002>

<sup>9</sup> Industrial Economics, Incorporated. An Assessment of the Health Burden of Ambient PM2.5 Concentrations in Virginia. 28 Oct. 2020, [https://cee8204b-70a4-447f-9567-a8b385f8bd93.filesusr.com/ugd/b42d13\\_16d1da1c63e84d328db4239aea371617.pdf](https://cee8204b-70a4-447f-9567-a8b385f8bd93.filesusr.com/ugd/b42d13_16d1da1c63e84d328db4239aea371617.pdf)

**ACTION PROPOSED BY  
MS. LUISA SANTOS:**

That The School Board of Miami-Dade County, Florida, acknowledge the urgency of achieving 100% clean energy use by 2030 through:

1. the adoption of Resolution No. 20-010 Acknowledging the Urgency of Achieving 100% Clean Energy Use by 2030 for Better Student Health and Financially Responsible Stewardship;
2. directing the Superintendent to establish the M-DCPS Clean Energy 2030 task force through a transparent process inclusive of community members and relevant stakeholder groups with each School Board Member submitting an expert appointee, alongside the School Board student representative, a M-DCC PTSA representative, a representative from each labor bargaining unit and the Superintendent's own appointees, as outlined in Resolution No. 20-010, and that it be assembled by no later than May 26, 2021 for the purpose of conducting a review of current sustainability measures across all departments and developing policy recommendations, accountability processes and an implementation plan to be presented to the Board no later than the February 2022 School Board meeting with a preliminary scope of implementation presentation to the Board for feedback and refinement by no later than the December 15, 2021 School Board meeting; and
3. participation in a Board workshop facilitated by clean energy and sustainability experts and district personnel to inform the Board of related issues and initiatives, outline local challenges and opportunities, and to present the task force membership, objectives and timeline prior to committee meetings on June 16, 2021 from 10-11 a.m.

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**RESOLUTION NO. 20-010**  
**ACKNOWLEDGING THE URGENCY OF ACHIEVING 100% CLEAN ENERGY USE BY 2030**  
**FOR BETTER STUDENT HEALTH AND FINANCIALLY RESPONSIBLE STEWARDSHIP**

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**WHEREAS**, The United Nations Intergovernmental Panel on Climate Change of 2018, authored by over 200 international climate scientists from 40 countries based on 6,000 peer reviewed publications, has outlined a climate crisis requiring a 50% reduction of greenhouse gas emissions by 2030, and net zero carbon by 2050, in order to mitigate the most catastrophic consequences of global warming; and

**WHEREAS**, The United States Government released its Fourth Annual Climate Assessment in November 2018, reporting that the impacts of climate change are already being felt in communities across the country and that more frequent, intense and extreme weather and climate-related events and changes in average climate conditions are expected to continue to damage infrastructure, ecosystems, and social systems that provide essential benefits to communities; and

**WHEREAS**, K-12 schools in the United States have an important part to play in reducing greenhouse gas pollution from buildings, transportation and food waste, and in Miami-Dade County Public Schools (M-DCPS), apart from facilities construction and management, school operations contributes to climate change through utilities usage, electricity usage, transportation, and food services, spending \$65 million a year on electricity, \$35 million on water, logging 13.5 million diesel bus and 16 million white fleet miles, and serving 45 million meals; and

**WHEREAS**, according to the U.S. Environmental Protection Agency, energy-related expenses fall second only to personnel as the largest expenditures in school district budgets and resources that can be saved on energy bills can be redirected to better serve students and school communities; and

**WHEREAS**, we understand the importance of reducing impacts of vector and airborne diseases and improving ventilation amidst the reality of COVID-19 and that ahead of the Board's consideration of American Recovery Act funding utilization, we also converge upon an opportune moment to consider investing in the health and well-being of our students through the sustainability of our buildings, schools and vehicles; and

**WHEREAS**, M-DCPS is committed to principles of equity, justice, and inclusion, and transitioning to 100% clean energy can help advance these goals by helping to address climate change, which disproportionately impacts low-income communities and communities of color; and

**WHEREAS**, apart from Miami-Dade County's Office of Resiliency, lauded as the State's most advanced and progressive sustainability-minded office, local leadership and municipalities such as the Miami-Dade County Council Parent Teacher Association, The City of Miami, The City Coral Gables, The City of South Miami, The City of Miami Beach, The Village of Key Biscayne, The Town of Surfside, North Bay Village, The Town of Cutler Bay and The Village of Palmetto Bay have already taken action in adopting resolutions addressing climate change, sustainability policies, and/or committing to clean energy.

**NOW, THEREFORE, BE IT RESOLVED THAT:**

The School Board of Miami-Dade County, Florida, approve Resolution No. 21-010 of The School Board of Miami-Dade County, Florida, acknowledging the urgency of achieving 100% clean energy use by 2030 for better student health and financially responsible stewardship.

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**BE IT FURTHER RESOLVED**, that the Clean Energy 2030 task force be established through a transparent process inclusive of community members and relevant stakeholder groups with each

School Board Member submitting an expert appointee, alongside the School Board student representative, a M-DCC PTA representative, and a representative from each labor bargaining unit and that it be assembled by no later than May 26, 2021; and

**BE IT FURTHER RESOLVED**, that the Superintendent will oversee the task force and shall appoint no more than 5 sustainability experts along with staff representative(s) from the Offices of Facilities and Construction, Design and Sustainability, InterGovernmental Affairs, Maintenance/Operations, Financial Services, Procurement, Academics and Transformation, and School Operations, Department of Transportation, Food and Nutrition; and

**BE IT FURTHER RESOLVED**, the charge of the Clean Energy 2030 task force shall be to review current sustainability practices throughout M-DCPS departments, and develop policy recommendations, accountability processes and an accompanying implementation plan aligned with the Board's commitment to 100% clean energy to be brought to the Board for consideration by no later than the February 2022 School Board meeting, with a preliminary scope of implementation presentation to the Board for feedback and refinement by no later than the December 15, 2021 School Board meeting; and

**BE IT FURTHER RESOLVED**, that the task force's scope of review and recommendations shall include, but not be limited to practices addressing sustainability education and professional development, green purchasing, establishing a district-wide energy reduction target, net metering, energy services agreements, tax exempt lease purchases, waste reduction, expanding the district's recycling program, sustainability-related opportunities within Career and Technical/Vocational Education, and the consideration of pursuing outside funding and leveraging available incentive programs in the corporate community.

A copy of this resolution is placed in the permanent records of this Board.

**Presented this twenty-first day of April, A.D. 2021**

THE SCHOOL BOARD OF MIAMI-DADE COUNTY, FLORIDA

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CHAIR

ATTEST:

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Secretary