



Planning, Development and Real Estate Committee

Board Action Item VIII-C

July 24, 2008

Policy on LEED Certification

Washington Metropolitan Area Transit Authority
Board Action/Information Summary

<input checked="" type="radio"/> Action <input type="radio"/> Information	MEAD Number: 100062	Resolution: <input checked="" type="radio"/> Yes <input type="radio"/> No
---	------------------------	--

TITLE:

LEED Certification

PURPOSE:

To obtain Committee concurrence and Board approval of a Resolution to: 1) Establish a policy that all new and substantially rehabilitated Metro facilities be designed and built with the goal of receiving LEED Certification; and 2) Encourage initiatives that will reduce the carbon footprint, especially of Metro facilities.

DESCRIPTION:

The primary reason for the creation of the Metrorail system was to provide a safe and efficient mode of transportation in the National Capital Region and provide a fully-acceptable alternative to private automobiles that reduces the number of vehicles on the road to relieve congestion and improve air quality. Metro has implemented many actions to reduce emissions and improve regional air quality including converting a portion of its bus fleet to Compressed Natural Gas with the principal goal of reducing nitrogen oxides in the air; operating 50 diesel hybrid electric buses; and authorizing the procurement of 203 additional hybrid vehicles as part of a five year plan to replace older diesel buses with the cleaner hybrid technology. In addition, the Metrorail system carries, on average, over 750,000 riders daily in 830 electrically-powered rail cars, and the Metrobus system on an average weekday attracts over 450,000 riders, thereby reducing the carbon footprint of these trips by removing these riders from private automobiles.

Metro continues to build upon its environmental programs by adding hybrid vehicles to its supervisory vehicle fleet; evaluating proposals to reduce energy use at seven facilities and using energy cost savings to fund projects; and applying for Cleaning Renewable Energy Bonds to fund solar power energy projects at six Metro facilities.

However, in the United States, building activities contribute to almost half of all carbon dioxide emissions and the federal government is evaluating possible carbon tax and cap and trade programs.

The U.S. Green Building Council, a non-profit building industry organization, has developed a rating system known as LEED (Leadership in Energy and Environmental Design) for building construction where the ratings of Certified, Silver, Gold, or Platinum are based on points earned for sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, and innovation in design. Green buildings are shown to reduce waste, energy use and water consumption, therefore costing less to operate and maintain over time.

The District of Columbia requires that all new construction and substantial improvements of District-owned projects achieve a LEED Silver rating; Montgomery County requires that new county buildings must achieve a LEED Silver rating; Arlington County site plan applications for commercial projects must include a LEED Scorecard, have a LEED-accredited professional on the project team and built with a LEED Silver goal in mind for County buildings; Prince George's County Board has set a goal that county buildings achieve a LEED Silver rating; Fairfax County has implemented a sustainable development policy incorporating LEED, and requirements increasing with the size of the project; Alexandria has a goal of LEED Silver for all new city construction; and the Metropolitan Washington Council of Governments Intergovernmental Green Building Group recommends LEED Silver certification as the goal for all local government facilities constructed in the Washington Metropolitan region.

While the above listed actions contribute to regional sustainability efforts, further improvements are needed. The Board has shown its desire to enhance environmental quality in the Washington Metropolitan Area by encouraging initiatives to reduce the carbon footprint of our community, especially within Metro. To further contribute to regional sustainability efforts, WMATA can design and construct all new and substantially rehabilitated WMATA facilities with the goal of achieving LEED Certification.

FUNDING IMPACT:

No impact on funding

RECOMMENDATION:

That the Committee concur and forward to the Board for approval of a Resolution to: 1) Establish a policy that all new and substantially rehabilitated Metro facilities be designed and built with the goal of receiving LEED Certification; and 2) Encourage initiatives that will reduce the carbon footprint, especially of Metro facilities.



LEED Certification for Metro Facilities

Presented to the Board of Directors:

Planning, Development and Real Estate Committee

July 24, 2008





Purpose

To obtain Board approval of a Resolution:

- Establishing a policy that all new and substantially rehabilitated Metro facilities shall be designed and built with the goal of receiving LEED Certification.
- Encouraging initiatives that will reduce the carbon footprint, especially of Metro facilities.



Costs and Benefits

- Costs of Certified Buildings

- Design and construction costs may increase by 4 – 10%.
- The fee varies by project size; the average cost is \$2600.



- Benefits of Certified Buildings

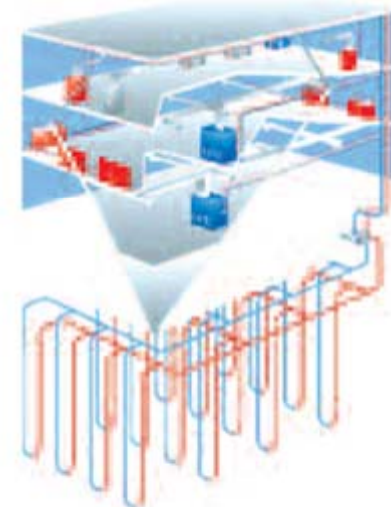
- Cost less to operate and maintain.
- Reduced carbon footprint.
- Energy and water efficient.
- Healthier and safer for occupants.
- A physical demonstration of the values of the organization that owns and operates them.



Background

What is LEED Certification?

- The U.S. Green Building Council, a non-profit building industry organization, has developed a rating system known as LEED (Leadership in Energy and Environmental Design).
- Ratings (certified, silver, gold, or platinum) are based on total points, given for:
 - sustainable sites
 - water efficiency
 - Energy
 - materials and resources
 - indoor environmental quality
 - innovation and design process



Ground Source Geothermal System



Background

Why LEED Certification?

- One of the 2008 goals established by the Board of Directors for the General Manager was to:
Develop and gain Board approval on a policy stating all new Metro facilities will be LEED certified





Background

What are jurisdictional policies?

- District of Columbia requires that all new construction and substantial improvement of District-owned projects achieve a LEED Silver rating.
- Montgomery County requires that a county building achieve a LEED Silver rating.
- Arlington County site plan applications for commercial projects must include a LEED scorecard and a LEED accredited professional on the project team. County buildings are built with a LEED Silver goal in mind.
- Prince George's County Board has set a goal that county buildings achieve a LEED Silver rating.
- Fairfax County has implemented a sustainable development policy incorporating LEED; LEED requirements increase with the size of the project.
- Alexandria has a goal of LEED Silver for all new city construction.
- The Metropolitan Washington Council of Governments Intergovernmental Green Building Group recommends LEED Silver certification as the goal for all local government facilities constructed in the Washington Metropolitan region.



Background

Every day Metro makes significant contributions towards reducing the region's carbon footprint including 750,000 rides on 830 electrically powered rail cars that reduce daily CO₂ emissions by 7.5 Million pounds every day*



*Each customer who foregoes a solo 20 mile round trip car ride reduces carbon dioxide emissions 20 pounds per day.



Background



Compressed Natural Gas Buses

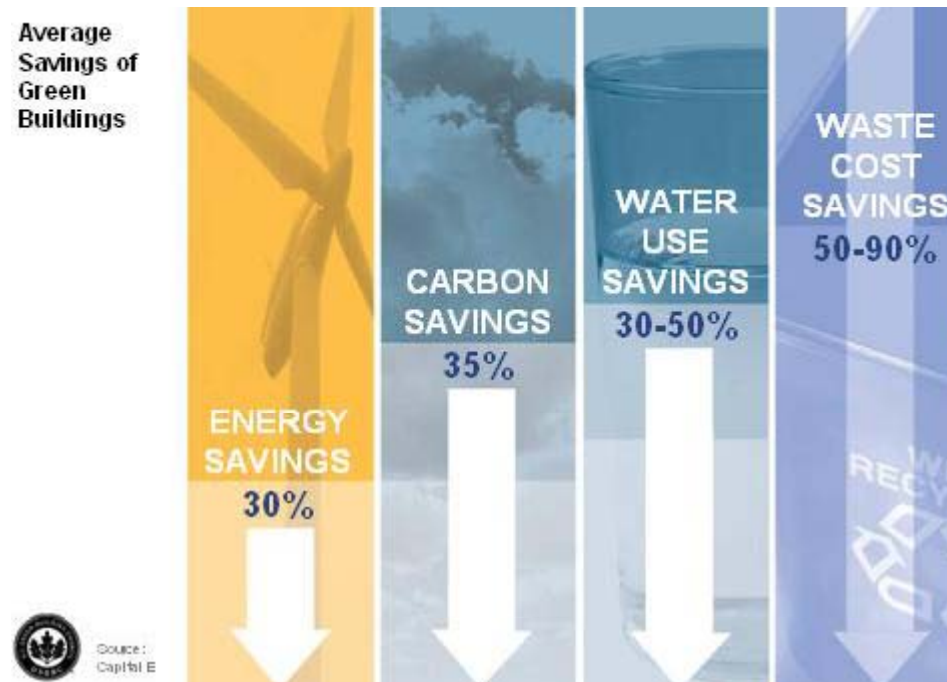


Diesel Hybrid Electric Buses



Next Steps

- WMATA can further enhance its environmental stewardship policies to include green building standards, with a goal of obtaining LEED Certification for all new and substantially rehabilitated facilities.





Recommendation

Recommend the Board approve:

- A policy that all new and substantially rehabilitated Metro facilities be designed and built with the goal of receiving LEED Certification.
- Encouraging initiatives that will reduce the carbon footprint, especially of Metro facilities.

PRESENTED AND ADOPTED:

SUBJECT: LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN CERTIFICATION

PROPOSED
RESOLUTION
OF THE
BOARD OF DIRECTORS
OF THE
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

WHEREAS, A primary reason for the creation of the Metrorail system was to provide a safe and efficient mode of transportation in the National Capital Region and to provide a fully acceptable alternative to private automobiles, and

WHEREAS, One of the purposes of public transportation is to reduce the number of vehicles on the road to reduce congestion and improve air quality, and

WHEREAS, The Metrorail system carries, on average, over 750,000 riders daily in 830 electrically powered rail cars, and the Metrobus system on an average weekday attracts over 450,000 riders, and

WHEREAS, Metro has implemented many actions to reduce emissions and improve regional air quality, including converting a portion of its bus fleet to Compressed Natural Gas with the principal goal of reducing nitrogen oxides in the air; operating 50 diesel hybrid electric buses; and authorizing the procurement of 203 additional hybrid vehicles as part of a five-year plan to replace older diesel buses with the cleaner hybrid technology, and

WHEREAS, Metro continues to build upon its current environmental programs by adding hybrid vehicles to its supervisory vehicle fleet; evaluating proposals to reduce energy use at seven facilities and use the energy cost savings to fund the projects; and applying for Clean Renewable Energy Bonds to fund solar power energy projects at six Metro facilities, and

WHEREAS, In the United States, building activities contribute to almost half of all carbon dioxide emissions and the federal government is evaluating possible carbon tax and cap and trade programs; and

WHEREAS, The United States Green Building Council, a non-profit building industry organization, has developed a rating system known as LEED (Leadership in Energy and Environmental Design) for building construction where the ratings of Certified, Silver, Gold, or Platinum are based on points earned for sustainable sites, water efficiency, energy and

atmosphere, materials and resources, indoor environmental quality, and innovation in design, and

WHEREAS, 'Green buildings' are shown to reduce waste, energy use and water consumption, therefore costing less to operate and maintain over time; and

WHEREAS, The District of Columbia requires that all new construction and substantial improvements of District-owned projects achieve a LEED Silver rating; Montgomery County requires that new county buildings must achieve a LEED Silver rating; Arlington County site plan applications for commercial projects must include a LEED Scorecard and have a LEED Accredited Professional on the project team and County buildings are built with a LEED Silver goal in mind; Prince George's County Board has set a goal that county buildings achieve a LEED Silver rating; Fairfax County has implemented a sustainable development policy incorporating LEED, with LEED requirements increasing with the size of the project; Alexandria has a goal of LEED Silver for all new city construction; and the Metropolitan Washington Council of Governments Intergovernmental Green Building Group recommends LEED Silver certification as the goal for all local government facilities constructed in the Washington Metropolitan region; and

WHEREAS, The above actions contribute to regional sustainability efforts, however, further improvements are needed, and

WHEREAS, Metro is considering the construction of new facilities and has many facilities that may require replacement or major rehabilitation in the future, now, therefore be it

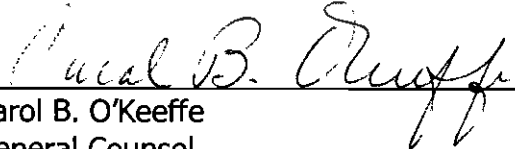
RESOLVED, That the Board of Directors wishes to enhance environmental quality in the Washington Metropolitan Area, and be it further

RESOLVED, That the Board of Directors encourages initiatives that will reduce the carbon footprint of our community, especially within Metro, and be it further

RESOLVED, That the Board of Directors directs Staff to design and construct all new and substantially rehabilitated Metro facilities with the minimum goal of achieving Leadership in Energy and Environmental Design Certification, and be it finally

RESOLVED, That this Resolution shall be effective immediately.

Reviewed as to form and legal sufficiency,



Carol B. O'Keeffe
General Counsel