

Green Report Cards: Best Practices

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City Sustainability Reports

- Portland, OR
- San Francisco, CA
- Berkeley, CA
- Chicago, IL
- Minneapolis, MN

GOALS AND ACTION AREAS

This Climate Action Plan identifies objectives and actions in eight categories to put Portland and Multnomah County on a path to reduce carbon emissions 80 percent from 1990 levels by 2050.

The Climate Action Plan:

- Proposes an interim goal of a 40 percent reduction in emissions by 2030.
- Establishes objectives to achieve the interim goal.
- Focuses principally on major actions to be taken in the next three years to shift Portland and Multnomah County's emissions trajectory.

To draft this Climate Action Plan, City and County staff worked with a steering committee and working groups to identify the objectives and actions most likely to foster the long-term changes necessary to achieve such ambitious goals.

Key criteria in developing the actions were the magnitude of emissions reductions, the scale of economic and community benefits, and the ability of local governments to facilitate their implementation.

Portland and Multnomah County are committed to acting decisively to implement these actions and constantly evaluate progress—adapting and revising as necessary. The City and County will report on community carbon emissions annually, evaluate progress and identify new actions every three years, and re-examine the objectives every ten years.

The 2030 Objectives and corresponding Action Areas of the Climate Action Plan are outlined on the following pages. The detailed Actions to be undertaken in the next three years are found on pages 29 through 58 of this document.

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BUILDINGS AND ENERGY

2030 OBJECTIVES

1. Reduce the total energy use of all buildings built before 2010 by 25 percent.
2. Achieve zero net greenhouse gas emissions in all new buildings and homes.
3. Produce 10 percent of the total energy used within Multnomah County from on-site renewable sources and clean district energy systems.
4. Ensure that new buildings and major remodels can adapt to the changing climate.

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URBAN FORM AND MOBILITY

2030 OBJECTIVES

5. Create vibrant neighborhoods where 90 percent of Portland residents and 80 percent of Multnomah County residents can easily walk or bicycle to meet all basic daily, non-work needs and have safe pedestrian or bicycle access to transit.
6. Reduce per capita daily vehicle-miles traveled (VMT) by 30 percent from 2008 levels.
7. Improve the efficiency of freight movement within and through the Portland metropolitan area.
8. Increase the average fuel efficiency of passenger vehicles to 40 miles per gallon and improve performance of the road system.
9. Reduce the lifecycle green-house gas emissions of transportation fuels by 20 percent.



2030 OBJECTIVE 1.

Reduce the total energy use of all buildings built before 2010 by 25 percent.

To be on track to reach the 2050 emissions reduction target, all buildings must consume 25 percent less energy than today. By 2030, many new and highly efficient buildings will have been built that will consume less than half the energy of today's buildings. However, because over two-thirds of the buildings that will exist in 2030 are in place today, existing buildings must be retrofitted with energy-saving measures to achieve the necessary aggregate building efficiency improvements.

Actions to be completed before 2012

- (i) Establish an investment fund of at least \$50 million in public and private capital to provide easy access to low-cost financing to residents and businesses for energy performance improvements.
- (ii) Require energy performance ratings for all homes so that owners, tenants and prospective buyers can make informed decisions.
- (iii) Require energy performance benchmarking for all commercial and multi-family buildings.
- (iv) Provide resources and incentives to residents and businesses on carbon-reduction actions in existing buildings, including energy efficiency, renewable energy, choice of materials and building re-use.

- (v) Work with partner organizations to promote improved operation and maintenance practices in all commercial buildings.
- (vi) Establish a City business tax credit for installing solar panels and ecoroofs together.

2030 OBJECTIVE 2.

Achieve zero net greenhouse gas emissions in all new buildings and homes.

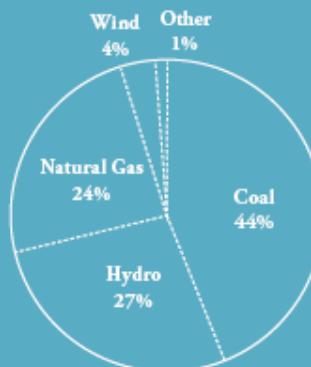
The optimal time to begin addressing building efficiency is in the initial building design stage. Buildings that have been designed and built with performance as a primary goal are capable of significantly outperforming similar, previously built buildings that have been retrofitted for efficiency. Because total emissions from buildings must be reduced by much more than can be accomplished with retrofits alone, it is critical that buildings built after 2030 generate more energy from clean sources than they consume, resulting in a net emissions reduction.

Actions to be completed before 2012

- (i) Participate actively in the process to revise the Oregon building code to codify the performance targets of Architecture 2030.
- (ii) Adopt incentives for high performance new construction projects that consider life-cycle carbon emissions impacts.
- (iii) Accelerate existing efforts to provide green building design assistance, education and technical resources to residents, developers, designers and builders.

FIGURE 9

2008 SOURCES OF ELECTRICITY FOR UTILITIES SUPPLYING CUSTOMERS IN MULTNOMAH COUNTY



Oregon Department of Energy for overall resource mix of each utility; Bureau of Planning and Sustainability for weighted average mix based on electricity supplied by Portland General Electric and Pacific Power to customers in Multnomah County

Coal plays a significant role in providing electricity to the Northwest. Year-to-year variability in hydropower supplies changes the mix, but coal and natural gas typically supply over half of all power to the Northwest, despite the extensive hydropower system. In Multnomah County, the power mix is even more dependent on coal, since Pacific Power, which provides about one-fourth of all electricity used in the county, relies on coal for about 70 percent of its energy.

Air Quality

Goal 1: To assure level of air quality that has no negative impact on the health of humans or the ecosystems of the natural environment.

5 Yr. 2002 Objectives:

1-1. The environmental health function of the City is staffed at a level that enables it to develop, implement, and monitor air quality objectives. (In Progress)

Action: 1-a. Develop participatory process to identify and plan for auto-free zones. (Accomplished)

1-2. City and other key decision-makers include air-quality goals when making policy choices. (In Progress)

Action: 1-b. Increase the use of clean-fuel vehicles. (Suggested for the private sector and city government) (Accomplished)

1-3. All new municipal building projects meet specifications that incorporate air-quality concerns (including specifications for the use of integrated pest management). (In Progress)

Action: 1-c. Reduce individual vehicle-miles traveled. (Suggested for individuals) (In Progress) Action: 1-d. Adopt a program to phase out conventionally fueled vehicles from the City fleet and investigate possibilities to replace conventionally fueled heavy equipment and public transit vehicles. (Accomplished)

1-4. Five to ten auto-free zones have been developed in San Francisco as model projects. (In Progress)

Action: INDOOR

1-5. Vehicle-miles traveled in private automobiles have been reduced by 10%. (In Progress)

Action: 1-e. Design publicly funded buildings with indoor-air-quality design criteria and develop incentives to encourage the private sector to use the criteria. (In Progress)

1-6. The City purchases only clean fueled vehicles for its fleet. (In Progress)

Action: 1-f. Establish a budget for and hire an indoor-air-quality coordinator. (Suggested for the Department of the Environment) (Accomplished)

1-7. 25% of conventionally fueled (gasoline and diesel) vehicle-miles traveled have been replaced with alternatively fueled vehicle-miles traveled. (In Progress)

Action: 1-g. Endorse and, as appropriate, adopt technical manuals and standards such as those issued by ASHRAE and the U.S. Green Building Council. * (Suggested for city government) Use these guidelines and incorporate new codes to assure good indoor air quality. (Suggested for the Department of Building Inspection) (Accomplished)

1-8. Air quality exceeds federal and state air quality standards on an ongoing basis. (In Progress)

1-9. Indoor air quality standards have been established for all indoor environments. (Not Yet Started)

Action: 1-h. Establish guidelines for purchasing low-emitting products and distribute them widely to city agencies, businesses and consumers. (Suggested for city government) (In Progress)

1-10. Residential and commercial buildings have modified the purchasing specifications for cleaning and maintenance products to minimize airborne toxicity. (Not Yet Started)

Action: 1-i. Institute stronger health-based occupational standards. (Suggested for city government) (In Progress)

San Francisco

Berkeley

Policy	Implementing Actions	Implementing Agencies	Funding Source	Implementation Timeline					
				Short Term (2009-10)	Medium Term (2010-2015)	Long Term (2015-2020)			
TLU 1. Goal: Increase density along transit corridors									
<i>A. Encourage development of housing (including affordable housing), retail services, and employment centers in areas of Berkeley best served by transit</i>									
1.	Conduct a "land use scenario study" in order to help visualize, quantify, and compare the impacts on VMT (and the associated GHG and local air pollutant emissions) of various land use scenarios	COB DP&D			X				
2.	Implement zoning adjustments to facilitate a mix of housing and commercial development (including retail services and employment centers) in certain transit-served areas (see chapter text for examples)	COB DP&D	COB	X	X	X			
3.	In order to improve livability and reduce VMT in existing neighborhoods that are not well served by transit, consider where in-fill neighborhood-serving retail, that is oriented to basic daily needs such as "corner stores" and small markets, may be feasible.	COB DP&D			X	X			
4.	Develop tools and guidance that the ZAB, Planning Commission and City Council can utilize in order to effectively consider and reduce the impact on GHG emissions of a given land use-related proposal (see chapter text for examples)	COB DP&D, COB DPW			X				
5.	Partner with UCB to assess and address unmet housing demand of UCB employees and students	UCB, COB DP&D, COB DPW			X	X			
6.	Partner with UCB and BUSD to identify opportunities to site affordable housing near transit for faculty and staff	UCB, BUSD, COB DP&D			X				
7.	Provide enhanced assistance during the permit process for transit-oriented development projects	COB DP&D			X				
8.	Encourage the adaptive reuse and intensification of historic buildings in proximity to transit, when feasible and appropriate	COB DP&D		X					

CHICAGO 2020 PROPOSED MITIGATION AND ADAPTATION STRATEGIES

Strategy

Action

Target (Government, Business, Residential)

MMTCO₂e Reduction

ENERGY EFFICIENT BUILDINGS



1	Retrofit commercial and industrial buildings	G B R
2	Retrofit residential buildings	G R
3	Trade in appliances	G B R
4	Conserve water	G B R
5	Update City energy code	G B R
6	Establish new guidelines for renovations	G B R
7	Cool with trees and green roofs	G B R
8	Take easy steps	G B R

Mitigation actions may not add up to 15.1 MMTCO₂e because some activities offset potential savings from others. The reduction number for all the strategies added together, without double-counting, is sufficient to meet a goal of 15.1 MMTCO₂e. These numbers represent the savings if each activity were implemented independently of the others.

Description

Retrofit 50 percent of commercial and industrial building stock, resulting in a 30 percent energy reduction.	1.3
Improve efficiency of 50 percent of residential buildings to achieve a 30 percent reduction in energy used.	1.44
Expand appliance trade-in and lightbulb replacement programs.	0.28
Improve water use efficiency in buildings as part of retrofits.	0.04
Align Chicago's Energy Conservation Code with latest international standards.	1.13
Require all building renovations to meet green standards.	0.31
Increase rooftop gardens to total of 6,000 buildings citywide and plant an estimated 1 million trees.	0.17
Encourage all Chicagoans to take easy steps to reduce their emissions by one metric ton of CO ₂ e per person.	0.8

CLEAN & RENEWABLE ENERGY SOURCES



9	Upgrade power plants	G B
10	Improve power plant efficiency	G
11	Build renewable electricity	G B R
12	Increase distributed generation	G B
13	Promote household renewable power	G B R

Upgrade or repower 21 Illinois power plants.	2.5
Raise efficiency standards for new and existing power generators.	1.04
Procure enough renewable energy generation for Chicagoans to reduce electricity emissions by 20 percent	3.0
Increase efficient power generated on-site using distributed generation and combined heat and power.	1.12
Double current household-scale renewable electricity generation.	0.28

IMPROVED TRANSPORTATION OPTIONS



14	Invest more in transit	G B
15	Expand transit incentives	G B
16	Promote transit-oriented development	G B R
17	Make walking and biking easier	G B R
18	Car share and carpool	G B R
19	Improve fleet efficiency	G B R
20	Achieve higher fuel efficiency standards	G B R
21	Switch to cleaner fuels	G B R
22	Support intercity rail	G B
23	Improve freight movement	G B

Invest in transit improvements and boost Chicago transit system ridership by 30 percent.	0.83
Provide incentives for transit use, such as pre-tax transit passes.	0.03
Encourage development focused on public transit, walking and bicycle use.	0.63
Increase the number of walking and bicycle trips to one million a year.	0.01
Boost car sharing, carpooling and vanpooling.	0.5
Improve the energy efficiency of fleets in Chicago, including buses, taxis and delivery vehicles.	0.21
Advocate for implementation of higher federal fuel efficiency standards.	0.51
Increase the supply and use of sustainable alternative fuels for Chicago vehicles.	0.68
Support intercity high-speed passenger rail plan.	
Foster more efficient freight movement, including support for CREATE.	1.61

REDUCED WASTE & INDUSTRIAL POLLUTION



24	Reduce, reuse and recycle	G B R
25	Shift to alternative refrigerants	G B R
26	Capture stormwater on-site	G B R

Reduce, reuse and recycle 90 percent of the city's waste by 2020.	0.84
Promote use of alternative refrigerants in air conditioners and appliances.	1.16
Manage stormwater with green infrastructure.	0.1

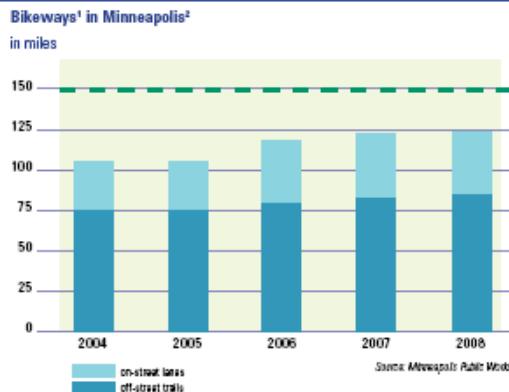
*and a much larger emissions reduction for the greater Chicago region.

Increase Bicycle Lanes and Trails

Bicycling is good for our health, economy and environment. Nearly 15,000 people bike in the City of Minneapolis on an average spring, summer or fall day. Approximately 25 percent bike year-round, which is remarkable given Minnesota winters. The City encourages bicycling through promotion, education and infrastructure. Minneapolis has an aggressive goal for adding miles of bicycle lanes and trails, and Minneapolis has the highest number of bicycle parking spaces per capita of any city in the U.S.

Target

Add 14 miles of on-street bicycle lanes and 30 miles of off-street trails to the 2004 level for a total of 150 miles of bikeways in the city by 2015.



1. Bikeways are multi-use paths, bike lanes and marked shared lanes.

2. The 2004-2007 figures are corrected from last year's report.



The City encourages residents to bike to dinner, work or for other short trips.

Trend Analysis

In 2008, the city gained one mile of off-street bike trails and 0.9 miles of on-street bike lanes, but lost 1.6 miles of on-street bike lanes due to downtown street reconstruction. Since 2004, eight miles of on-street bicycle lanes and eight miles of off-street trails have been added for a total of almost 123 miles of bikeways.

Bicycling is going up in Minneapolis. The U.S. Census Bureau reported that among the 50 largest U.S. cities in 2007, Minneapolis had the second highest percentage of people biking to work. Of all trips to work, 3.8 percent are on bikes, up from 2.5 percent in 2006. From 2003 to 2007, bicycling rose 50 percent at nine downtown locations. From 2007 to 2008, the number of bicyclists increased 30 percent on the Midtown Greenway (April through June).

Recent City & Community Activities

- Opened the Midtown Bike Center offering bike sales and rentals, parts and repairs, bathrooms, showers, a drinking fountain, and a coffee shop. www.ci.minneapolis.mn.us/bicycles/MidTownBikeCenter.asp
- The Minneapolis Park and Recreation Board completed reconstruction on the existing East River Parkway and St. Anthony Parkway trails.
- Launched the Bike Walk Ambassador program offering bike education, promoting new bike and pedestrian infrastructure projects, supporting work and worship place outreach, and coordinating activities to encourage people to bike more, walk more and drive less. www.bikewalktwincities.org/ambassadors
- Revised zoning codes to require bicycle parking for most development and included incentives for incorporating bicycle or transit facilities in development design.
- Totaled 3,591 publicly accessible bike racks with 15,111 bike parking spaces and 29 locker locations with 249 bike locker spaces citywide in 2007. www.ci.minneapolis.mn.us/bicycles/bikerack-lockers.pdf
- Hosted a multistation bike sharing program sponsored by Humana and Bikes Belong for the Republican National Convention.
- Annual bicycle events include the Minneapolis Bike Tour, Great River Energy Bicycle Festival, and Bike Walk to Work Day.

Web Links & Resources

- City of Minneapolis biking information www.ci.minneapolis.mn.us/bicycles/index.asp
- Bike Walk Twin Cities www.bikewalktwincities.org
- Metro Transit Biking Resources www.metrotransit.org/bike
- Online biking forum www.mplsbiikelove.com

Minneapolis

Corporate Responsibility Reports

- Dell
- Intel
- Nike

Accomplishments for Fiscal Year 2009 (continued)

Environment (continued)			
Focus	Commitment	Delivery	Moving Forward
Sustainable Operations (continued)	Transportation and Logistics <ul style="list-style-type: none"> Sustain GHG emission reductions through SmartWay Transport Partnership carriers 	Transportation and Logistics <ul style="list-style-type: none"> Continued to use SmartWay-certified partners and other partners to provide timely and damage-free deliveries 	Transportation and Logistics <ul style="list-style-type: none"> Continue to optimize our inbound and outbound transportation networks, such as shipping lanes, that are focused on using the most efficient modes of air, land and ocean transportation
	Manufacturing and Operations <ul style="list-style-type: none"> Recycle or reuse 99% of waste from manufacturing operations by 2012 Improve building Leadership in Energy and Environmental Design (LEED) scores by 2012 	Manufacturing and Operations <ul style="list-style-type: none"> Recycled and reused 95.4% of nonhazardous waste from manufacturing operations Completed 88 projects to save 17 million kWh of annualized electricity use 	Manufacturing and Operations <ul style="list-style-type: none"> Continue to make environmental improvements to our facilities
	Forest Stewardship <ul style="list-style-type: none"> Achieve 20% post-consumer waste (PCW) for paper used in our U.S. catalogs Maintain current minimum average of 28% PCW for copy paper used in U.S. operations 	Forest Stewardship <ul style="list-style-type: none"> Achieved an average of 45% PCW in catalogs Achieved an average of 30% PCW for copy paper in the U.S.; in January 2008 began using 100% PCW copy paper at all Austin, Texas, and Nashville, Tennessee, campuses 	Forest Stewardship <ul style="list-style-type: none"> Migrate direct mail and insert pieces to higher recycled-content paper sources
Recycling	<ul style="list-style-type: none"> Promote and drive producer-responsibility legislation Recycle 125 million kg of discarded product by FY10 through asset recovery programs Publishe electronics disposition standard by Q4 FY09 Leverage existing and envision new proactive programs worldwide 	<ul style="list-style-type: none"> In the U.S., worked with governments in 11 states to pass producer-responsibility-based consumer reuse and recycling legislation; expanded our takeback portfolio by launching a trade-in/exchange program Exceeded 125 million kg takeback commitment Engaged partners, stakeholders and customers in electronics disposition standard development 	<ul style="list-style-type: none"> Measure global, free and convenient takeback programs Advocate for producer-responsibility legislation Publish electronics disposition standard in Q4 FY09 and revise in Q2 FY10
Engagement	<ul style="list-style-type: none"> Promote ReGeneration to customers 	<ul style="list-style-type: none"> Launched new ReGeneration Web site 	<ul style="list-style-type: none"> Engage in thousands of conversations with customers
Services and Solutions	<ul style="list-style-type: none"> Develop new services, solutions and tools to help customers increase the efficiency of their data centers 	<ul style="list-style-type: none"> Launched Greenprint Advisor and Virtualization Services 	<ul style="list-style-type: none"> Continue developing portfolio of new services and solutions

Corporate Accountability			
Focus	Commitment	Delivery	Moving Forward
Governance and Compliance	<ul style="list-style-type: none"> Appropriately encourage and hold employees, managers and leaders accountable for ethics and compliance performance Ensure that employees understand ethics and compliance expectations Strive to meet ethics and compliance program effectiveness standard of the U.S. Federal Sentencing Guidelines and align with our business strategies 	<ul style="list-style-type: none"> Embedded accountability language into the Performance Direct welcome page Attained 100% completion rate in Ethics and Compliance education (annual training) 	<ul style="list-style-type: none"> Continue using internal policies and protocols to educate and inspire employees Create leadership council

Dell

Learn more at www.dell.com/accomplishments.

2008 Performance Summary

In 2008, we extended our climate change strategy by becoming the largest purchaser of green power in the U.S., according to the U.S. EPA, and installing solar systems at three Intel sites. To help focus all of our employees on environmental sustainability, we aligned a portion of their variable compensation with environmental criteria. We continued to face challenges in achieving absolute reductions in our environmental impact due in part to the increasing complexity of our manufacturing processes, recording increases in both water use and chemical waste generated.

Subsequent to setting new 2012 environmental goals at the beginning of 2008, we sold our NOR flash business to Numonyx B.V. To avoid the possibility of overstating reductions by including amounts that would be attributed to the sale of these operations, we created a revised 2007 baseline for the goals, with the Numonyx data removed. We believe that using this revised baseline allows us to better track results arising from the direct actions we are taking in our operations to reduce our environmental footprint. Percentages in the following table show our progress to date against the revised 2007 baseline; tables, graphs, and data featured throughout the rest of the report feature the historical 2007 figures.

Environment Goals and Performance		
2012 Goals	2008 Progress Against Goals	
Reduce water use per chip ¹ below 2007 levels by 2012.	Tracking against our 2007 baseline, our water use was up 2% on a per chip basis. We are taking steps in 2009 to correct this trend and expect to meet our 2012 goal.	
Reduce absolute global-warming gas footprint by 20% by 2012 from 2007 levels.	Total emissions were down 27% on an absolute basis compared to our 2007 baseline, keeping us on track for our goal, even with expected growth during the next five years.	
Reduce energy consumption per chip 5% per year from 2007 through 2012.	Per chip energy use was down just 1% compared to our 2007 baseline, but we still expect to achieve an average annual reduction of 5% by 2012.	
Reduce generation of chemical waste per chip by 10% by 2012 from 2007 levels.	Chemical waste generated per chip was up 20% over our 2007 baseline, putting us at risk of not meeting our 2012 goal. To drive reductions going forward, we have set additional internal waste goals for processes that we are bringing online in the next two years, and we set up a team to study ways to reduce the use of certain chemicals.	
Recycle 80% of chemical and solid waste generated per year.	We recycled 84% of our chemical waste and 88% of our solid waste in 2008.	
Achieve engineering and design milestones to ensure that Intel products keep the energy-efficiency lead in the market for our next two product generations.	We met our energy-efficiency product targets in 2008.	
 Achieved  Partially Achieved  Not Met		

Intel

¹ Assuming a typical chip size of approximately 1 cm² (chips vary in size depending on the specific product).

GOAL ➤ CLIMATE CHANGE

Key



Off track



Obstacles



On track



Completed

Nike

TOPIC	FY11 TARGET	PERFORMANCE THROUGH FY09	PROGRESS
Footwear Manufacturing	Footwear manufacturing CO ₂ emissions footprint: Goals to be announced by January 2008.	Did not set an external target. Achieved a 6 percent absolute CO ₂ reduction among factory groups participating in our program after seven months of work.	
Inbound Logistics	Deliver 30 percent absolute reduction in CO ₂ emissions from 2003 by FY20. (2003 baseline is 311,859 tonnes).	FY09 produced a 14 percent increase in CO ₂ Emissions from the FY03 baseline. Efforts to reduce this impact can be appreciated when the CO ₂ percent change is compared to the overall growth in business during this timeframe. Nike Brand revenue increased approximately 70 percent from FY03 to FY09.	
Facilities & Business Travel	Nike brand facilities and business travel climate neutral by FY11; NIKE, Inc facilities climate neutral by FY15.	Progress made but rethinking goal as part of larger Climate & Energy strategy.	