

VILLAGE OF LOMBARD
REQUEST FOR BOARD OF TRUSTEES ACTION
For Inclusion on Board Agenda

Resolution or Ordinance (Blue) _____ Waiver of First Requested
 X Recommendations of Boards, Commissions & Committees (Green)
Other Business (Pink)

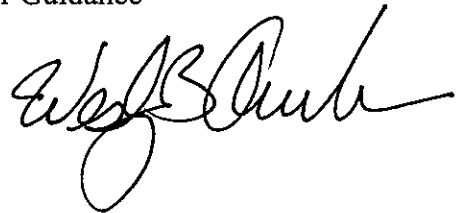
TO: PRESIDENT AND BOARD OF TRUSTEES

FROM: William T. Lichter, Village Manager

DATE: 10/11/06 (COW) (B of T) **Date:** October 19, 2006

TITLE: Environmental Concerns Committee, Request for Guidance
U.S. Mayors Climate Protection Agreement

SUBMITTED BY: Wesley B. Anderson, Director of Public Works



BACKGROUND/POLICY IMPLICATIONS:

See attached memo.

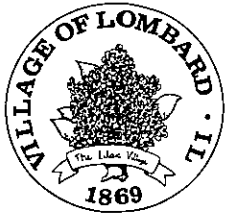
FISCAL IMPACT/FUNDING SOURCE:

See attached memo.

Review (as necessary):

Village Attorney X _____ Date _____
Finance Director X _____ Date _____
Village Manager X W. T. Lichter Date 10/11/06

NOTE: All materials must be submitted to and approved by the Village Manager's Office by 12:00 noon, Wednesday, prior to the Agenda Distribution.



To: William T. Lichter, Village Manager

From: Wesley B. Anderson, Director of Public Works

Date: October 9, 2006

Subject: U.S. Mayors Climate Protection Agreement

At the May meeting of the Environmental Concerns Committee the local Chapter of the Sierra Club asked the Committee to recommend to the Board of Trustees that the Village sign the U.S. Mayors Climate Protection Agreement (attached). The Agreement asked Local and State Governments to enact policies and programs to meet or exceed the Kyoto Protocols target for the United States. The Protocols establishes a target of an 8% reduction in greenhouse gases from 1990 levels by 2008-2012 for the United States. The Committee has been studying the proposal for the last four months and needs guidance from the Board of Trustees to complete its efforts.

The following is the result of the analysis to date.

The proposed U.S. Mayors' Agreement states that signatories "will strive to meet or exceed Kyoto Protocol targets for reducing global warming pollution by taking actions in our own operations and communities such as:"

Staff Comments: The agreement states that the Village will strive to meet or exceed the Protocol targets. There are different levels of effort that can be implemented to meet the stated goal of striving "to meet or exceed the Kyoto Protocols". The Village's level of effort in implementing this agreement impacts the cost of implementing the program. The cost of the program increases as the Village strives harder to meet the 8% reduction target. The Village does not have the environmental staff, or expertise, to implement all of the recommendations listed in the Agreement. Thus, the Village will have to contract for the services or hire additional personnel depending on the extent of the program implemented within the Village.

Paragraph C of the Agreement lists possible objectives to implement. This list can easily be interpreted as the Village's selected objectives for implementation. Therefore, the Village's version of the agreement should include only those objectives that are accepted by the Village.

The following is an analysis of the possible objectives as listed in the Agreement.

1. Inventory global warming emissions in City operations and in the community, set reduction targets and create an action plan.

Staff Comments: The Village does not have the Environmental personnel or expertise necessary to implement this program. The Village would have to hire a consultant to conduct the

inventory, and develop the targets and plan. The Village Attorney believes that as a non-home rule community the Village does not have the authority to make this a mandatory program. Therefore participation would be voluntary.

Staff Recommendation: Do not include this objective in the Village's version of the Climate Protection Agreement due to the costs associated with hiring a consultant to develop and manage this program, and that the Village does not have the authority to proceed with this option.

2. Adopt and enforce land-use policies that reduce sprawl, preserve open space, and create compact, walkable urban communities;

Staff Comments: The Village of Lombard's zoning ordinance and comprehensive plan encourages reducing sprawl by encouraging density in the downtown. Redevelopment such as Fountain Square and Highlands of Lombard has encouraged mixed use developments.

Staff Recommendation: Include this objective in the Village's Climate Protection Agreement and maintain existing codes and practices.

3. Promote transportation options such as bicycle trails, commute trip reduction programs, incentives for car pooling and public transit;

Staff Comments: The Village has a comprehensive bike and pedestrian trail system throughout the community. The proposed bridges for the Great Western Trail and the lighting of that trail will provide significant access for the community. The Village is exploring the creation of a circulator system throughout the Village serving the varying demographics of the community. The Village and the DMMC has identified Yorktown as the transit center hub for the county.

Staff Recommendation: Include this objective in the Village's Climate Protection Agreement. Both the transit center and the circulator route should be explored by the Village to make them a reality.

4. Increase the use of clean, alternative energy by, for example, investing in "green tags", advocating for the development of renewable energy resources, recovering landfill methane for energy production, and supporting the use of waste to energy technology;

Staff Comments:

The Village has two primary ways to obtain renewable energy for use in Village facilities, purchasing renewable energy for delivery to our servicing electric grid or purchasing Green Tags. Green Tags enables a customer to purchase credit for using renewable energy that cannot be delivered to the servicing grid. Green Tags represent the difference in cost a customer would pay for using renewable energy versus conventional sources. Thus, buying Green Tags has the same affect as buying renewable energy.

The franchise agreement with ComEd allows ComEd to use the Village's right of way at no cost in exchange for free electricity with some exceptions. The Village purchases power for its street lights, operating the Village's water and sewage systems, and heating Village Hall. A rough estimate of our non-franchised electrical consumption (1 winter month and 1 summer month multiplied by 6) is 3,200,000 KWH (kilowatt hours) annually. A sample of several Green Tag providers determined an approximate range of costs for Green Tags for this quantity of electricity is between \$22,000 and \$70,000 annually.

Staff Recommendation – Based on a purely fiscal perspective, Staff does not recommend purchasing green tags. Recommend ECC request guidance from the Board to determine their willingness to pay a premium to implement this goal of the Agreement.

5. Make energy efficiency a priority through building code improvements, retrofitting city facilities with energy efficient lighting and urging employees to conserve energy and save money;

Staff Comments:

Lombard's current building code is the National Building Code (2000 version). The Code allows the construction and use of major energy savings alternatives such as ground source heat pumps, photovoltaic panels and solar heating. The Code also allows for the application of sustainable building programs such as LEED.

In 2005, due to other issues, the interior lighting in most Village buildings was upgraded with the latest energy efficient bulbs. Staff can develop and execute a campaign for employees to conserve energy.

Staff Recommendation: Include this objective in the Village's Climate Protection Agreement.

6. Purchase only Energy Star equipment and appliances for City use;

Staff Comments: Staff attempts to include this requirement where appropriate in its request for proposals and bids.

Staff Recommendation: Include this objective in the Village's Climate Protection Agreement.

7. Practice and promote sustainable building practices using the U.S. Green Building Council's LEED program or a similar system;

Staff Comments:

Independent experts state that to attain the two lowest levels of U.S. Green Building Council's LEED certification increases construction costs between 0 to 11 percent. Operating costs of a typical Green Building tends to be lower, however, much of these operating costs are associated with heating and cooling. The Village would not obtain most of the operational costs savings

due to franchise agreements with utility companies. Therefore the Village will face increased construction and renovation costs for participating in this program without the payback associated with reduced operational costs.

For the Village to effectively promote sustainable buildings the Village would have to participate in the program itself. The Village would have to include and fund Green Building measures as part of any future renovation, addition or new construction.

Staff Recommendation: Recommend ECC request guidance from the Board to determine their willingness to pay a premium to implement this goal of the Agreement.

8. Increase the average fuel efficiency of municipal fleet vehicles; reduce the number of vehicles; launch an employee education program including anti-idling messages; convert diesel vehicles to bio-diesel;

Staff Comments:

Currently hybrid vehicles can only use additional electrical equipment if the equipment can be connected through the "cigarette" lighter. The majority of the Village's vehicle fleet is emergency vehicles which have too much additional electrical powered equipment to connect to the vehicle's electric system through just the lighter. This issue limits consideration to Village Hall vehicles and some PW vehicles. Village vehicles, since the majority of their use is local, typically are low mileage vehicles. Payback calculations have shown that typical savings over the life of a Village vehicle generated as a result of operating a higher mpg hybrid vehicle are less than the costs associated with purchasing the higher priced hybrid. The Village would need grants to help subsidize the cost of purchasing hybrid vehicles to make the conversion cost effective.

Beginning October 2006, Public Works begins the process of converting its fleet and fueling system to ultra low sulfur diesel. All new trucks purchased in 2007 and later come equipped with the ultra clean engine that is the current EPA standard. Current diesel engines can operate up to 20% bio-diesel without any conversion required. 20% bio-diesel reduces carbon dioxide emissions by 15%, 100% bio-diesel reduce emissions by 75% over petroleum diesel.

Alternative fuels include ethanol, propane and compressed natural gas. In June, ethanol was \$5.00 per gallon on the spot market. Prices for ethanol have since come down. Additionally, ethanol gets 25% fewer miles per gallon. Comparing all costs associated with ethanol, there is not much difference in price between the two fuels. Additionally, both produce greenhouse gases in relatively the same amount.

Propane and compressed natural gas require an investment to install refueling facilities. These fuels produce 30 to 40% less carbon dioxide than gasoline. They require the installation of additional fueling facilities in an already small yard. Current estimated costs for constructing a

compressed natural gas fueling facility is a minimum of \$250,000. Downers Grove received a Federal grant to fund 80% of the costs of constructing their fueling facility. Honda makes a Civic that operates off of compressed natural gas. Other light vehicles are after market conversions to run on natural gas. Downers Grove's most recent estimate is that it costs \$1.50 per gallon equivalent to fuel their compressed natural gas vehicles. The Forest Preserve District of DuPage and Downer's Grove Public Works are the closest sources of compressed natural gas.

Staff Recommendation: Recommend ECC request guidance from the Board to determine their willingness to pay a premium to implement this goal of the Agreement.

9. Evaluate opportunities to increase pump efficiency in water and wastewater systems; recover wastewater treatment methane for energy production;

Staff Comments: An engineering consultant would have to evaluate the Village's system. A complete study could be accomplished but it would most likely be implemented in stages as existing systems failed. This consideration can be included as we go through the process of updating the system as part of the Village's Capital Improvement Program.

Staff Recommendation: Include this goal in the Village's Climate Protection Agreement.

10. Increase recycling rates in City operations and in the community;

Staff Comments: Village residents are presently recycling 23% of their total waste. Waste Management has found that there is an increase in recycling rates in other communities when they have converted to the cart recycling system. Presently Lombard does not have an "automatic" recycling program for Businesses. Any substantial increases in recycling rates will hinge on getting the business community involved.

Staff Recommendation: Include this in the Village's Climate Protection Agreement

11. Maintain healthy urban forests; promote tree planting to increase shading and to absorb CO₂;

Staff Comments: The Village is already implementing this objective. The Village has been a Tree City USA for 16 years. The Village has over 14,000 trees planted on Village property and only 2,144 open planting positions remain. This is a reduction of over 1,400 open planting positions since CY 2000.

Staff Recommendation: Include this objective in the Village's Climate Protection Agreement.

12. Help educate the public, schools, other jurisdictions, professional associations, business and industry about reducing global warming pollution.

Staff Comments: Village staff is limited. An extensive campaign is not within its capabilities. Village staff is capable of developing a press release campaign to further educate the public about reducing global warming pollution.

Staff Recommendation: Include this in the Village's Climate Protection Agreement

Current Status: The Environmental Concerns Committee is continuing its analysis. The Committee believes it will recommend that the Village Board participate in the U.S. Mayors Climate Protection Agreement. The Committee needs guidance from the Board regarding the degree to which it wants to participate in the Agreement before finalizing its recommendation. Particularly, guidance is requested for the Boards desire to participate by:

- Purchasing renewable energy (Objective 4)
- Practicing and promoting sustainable (green) building practices (Objective 7)
- Purchasing hybrid vehicles or other Alternate Fuel Technology vehicles (Objective 8)