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**Promoting a Sustainable Madison by Encouraging Clean Energy Sources:  
The Role of the City's Trees**

*Notes for the City of Madison's Sustainable Madison Committee*

A key to a sustainable Madison is the encouragement and development of clean energy sources. For example, small-scale solar photovoltaic systems on homes and businesses can play a significant role in reducing our city's carbon footprint and increasing locally-sourced power.

Solar power systems have become very affordable as component prices have come down. Further, federal tax credits and Focus on Energy rebates can reduce the cost of systems by 40% or more. There is wide interest among home and business owners in such systems. A significant home system may now be installed for close to \$10,000.

Not all of Madison's buildings are good candidates for solar power systems. However, anyone with an unshaded south-facing roof is probably giving this some thought. And many with shaded south-facing roofs may be reflecting on the mixed blessings of our city's wonderful large shade trees.

As you know, the invasion of the emerald ash borer will result in the removal of thousands of stately ash trees from city streets over the next years. There is a silver lining to this cloud: The City of Madison has an exciting opportunity to encourage private investment in sustainable energy by selecting replacement trees that will not discourage solar power systems.

It would not be difficult for city staff to evaluate each site for the solar power potential of adjacent buildings when an ash tree is removed. Tree varieties that top out at 30-40 feet would be the best replacement choice where a larger tree's shade would impede future solar energy development.

The city's current capital budget allocates \$15 million for tree replacement and homeowners have begun to see related charges on their monthly city utility bills. Let us leverage this investment to increase the paths to a sustainable Madison.