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Potential impact of individuals on carbon dioxide emissions in East North Central USA. GEORGE MOZURKEWICH — Many activities of modern life increase the atmosphere's carbon dioxide load. With approximately 48 percent of energy use in the US being attributable to the residential and transportation sectors, individuals have meaningful control over a large portion of these emissions. To reduce our impact, we have been exhorted to buy hybrid vehicles, use fluorescent bulbs, enhance the insulation of our homes, etc. This presentation ranks the effectiveness of several such actions, both in terms of the magnitude of emissions reductions attainable and in terms of cost effectiveness. Input information was obtained from several publicly available databases and, where possible, is specialized to the East North Central census region (Ohio, Michigan, Indiana, Illinois, and Wisconsin). A key observation is that concerned individuals can significantly reduce their carbon dioxide emissions at minimal net cost to themselves using technology that is currently commercially available. Time permitting, the magnitude of these available reductions will be considered in light of the second law of thermodynamics.

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