Table 3. Energy ratio of output to input for various energy sources.

Nonrenewable fossil fuels vi Oil & natural gas (US wellhead) Discoveries – 1940s	Energy source	Energy ratio
Discoveries – 1940s	v v	
Production of earlier discoveries – 1970s Production of earlier discoveries – 1970s 10 Coal – 1950 (US mine) – 1970 (US mine) – 1970 (US mine or strip) Renewable fuels Ethanol (grain, sugarcane, crop residues) vi Methanol (tree plantation) vi 2.6 Vegetable oil (precursor to biodiesel) vii Biomass tree crops (fertilized) viii Biomass herbaceous crops (fertilized) viii Biomass crop, then gasification viii,x 2-5 Anaerobic digester biogas (8 countries) vi Coal-fired, US average Western surface coal – no scrubbers – scrubbers 2.5 Natural gas-fired vii Photovoltaic arrays vi Solar-related electricity production Photovoltaic arrays vi Photovoltaic arrays vi Nind turbines xiv,xv Solar-related electricaty production Photovoltaic arrays vi Solar-related electricity production Solar-related electricity	~ ` '	
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Energy in Agriculture and Society: Insights from the Sunshine Farm, Marty Bender, 3/28/01 http://www.landinstitute.org/texis/scripts/vnews/newspaper/+/ART/2001/03/28/3accb0712

Notes for Tables 1-3.

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