ABSTRACT: Working group III in the Fifth Assessment Report issued by the United Nations Intergovernmental Panel on Climate Change (2014) stated that most climate change mitigation scenarios for keeping average global warming below 2°C “…rely on the availability and widespread deployment of bioenergy with carbon dioxide capture and storage (BECCS) and afforestation in the second half of the century.” The direct burning of biomass and the co-firing of biomass with fossil fuel have the potential to generate carbon negative energy if the CO₂ is captured and geologically sequestered. However, the capture, compression, transport and geologic storage of CO₂ decrease energy efficiency and increase the cost of electricity generation by more than 30%. In such systems, CO₂ capture and storage is essentially an expensive waste cleanup process that is perceived as a “drag on the economy”. The Pyrolysis-Biochar Platform, by contrast, has the potential to generate economic value from both the production of renewable energy products (bio-fuels, chemicals, bio-asphalt, etc.) and through the sequestration of carbon (use of the biochar co-product as a soil amendment). Competing with inexpensive fossil fuels is, however, a major impediment to the growth of the emerging pyrolysis-biochar industry. Early entrants are dependent on niche high-value markets for biochar. In the absence of a price on carbon emissions, future growth of the pyrolysis-biochar industry depends on developing new high value markets for biochar in areas such as sustaining and building soil quality (increasing agricultural productivity and land values), land remediation, and improving nutrient and water use efficiency in agriculture production.