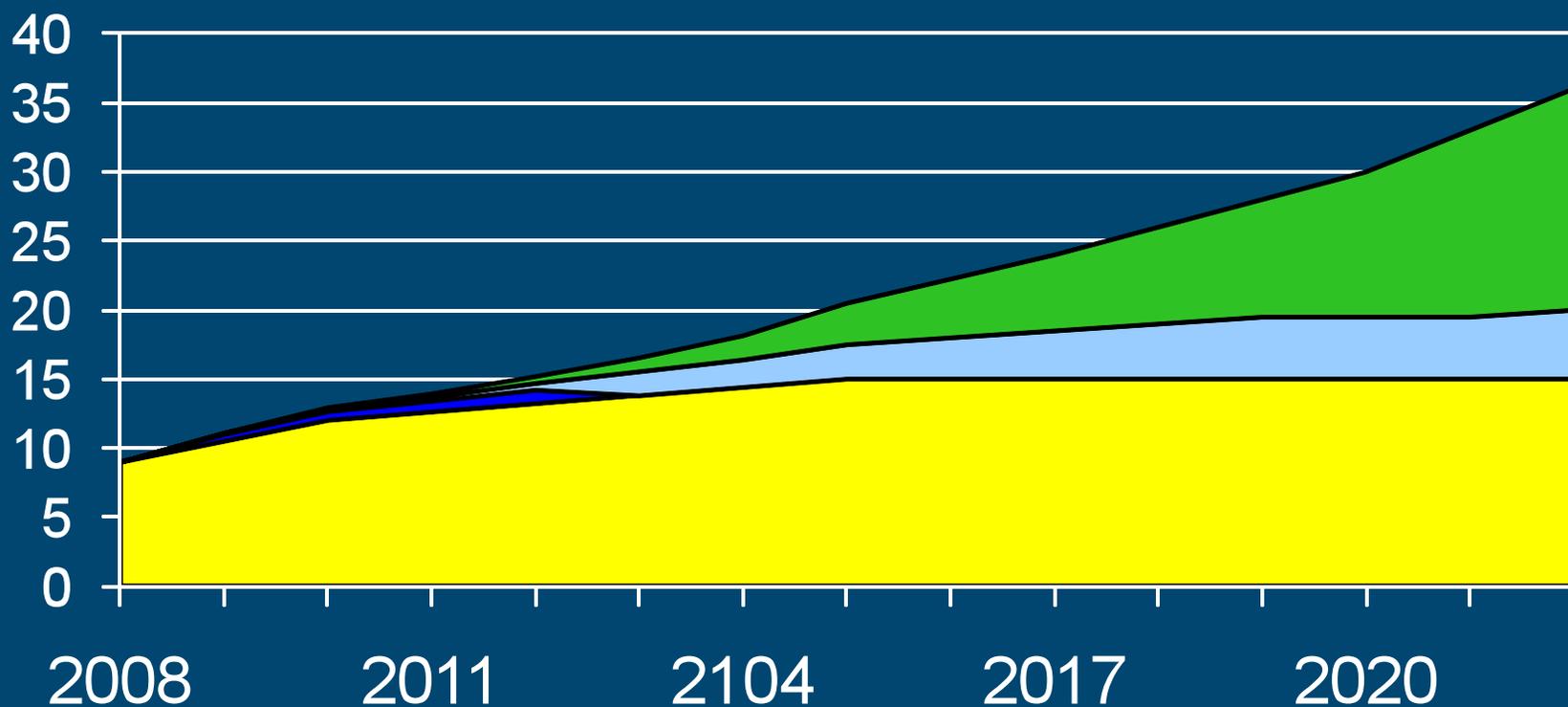




# U.S. Renewable Fuels Standard

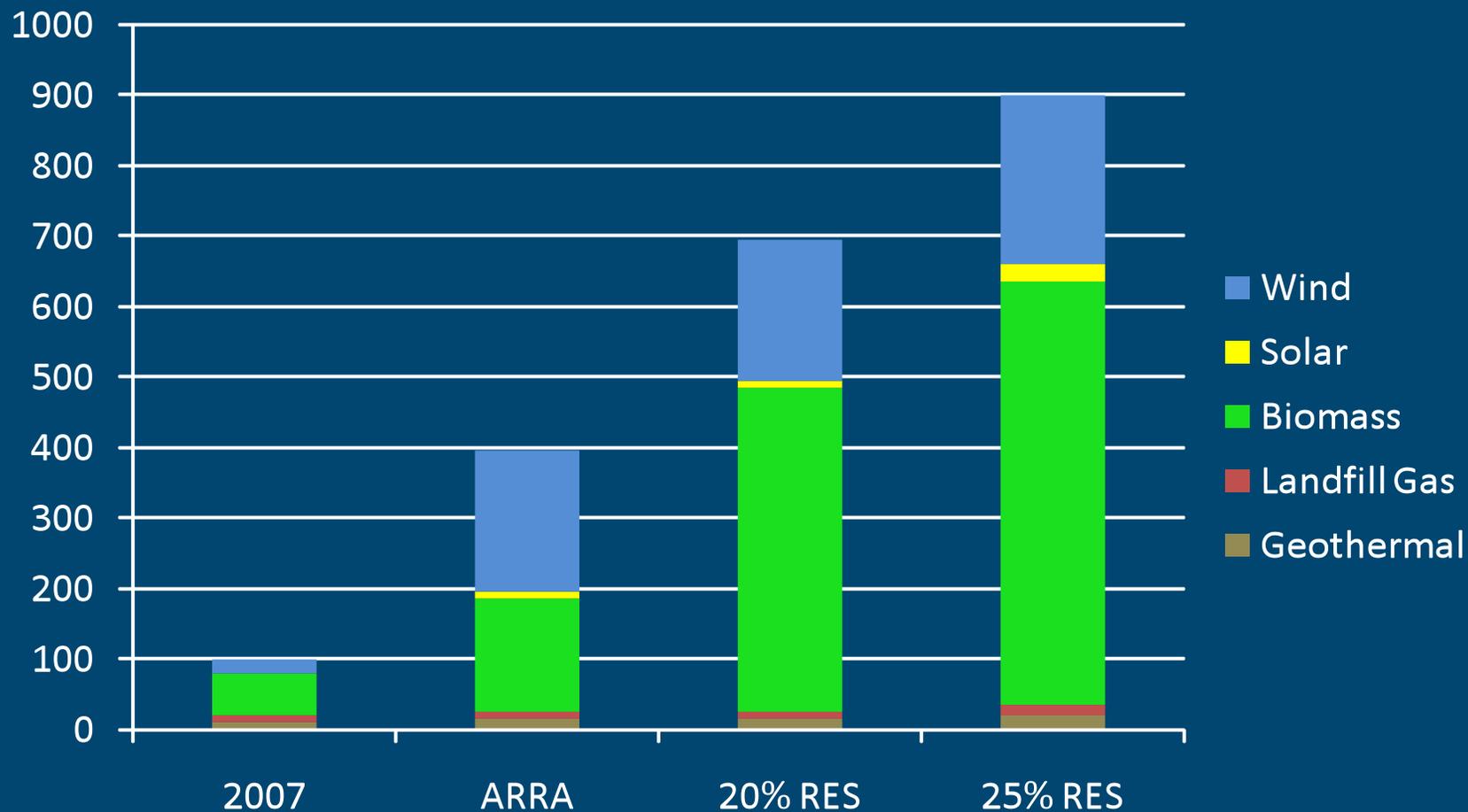
Billions of Gallons/Year



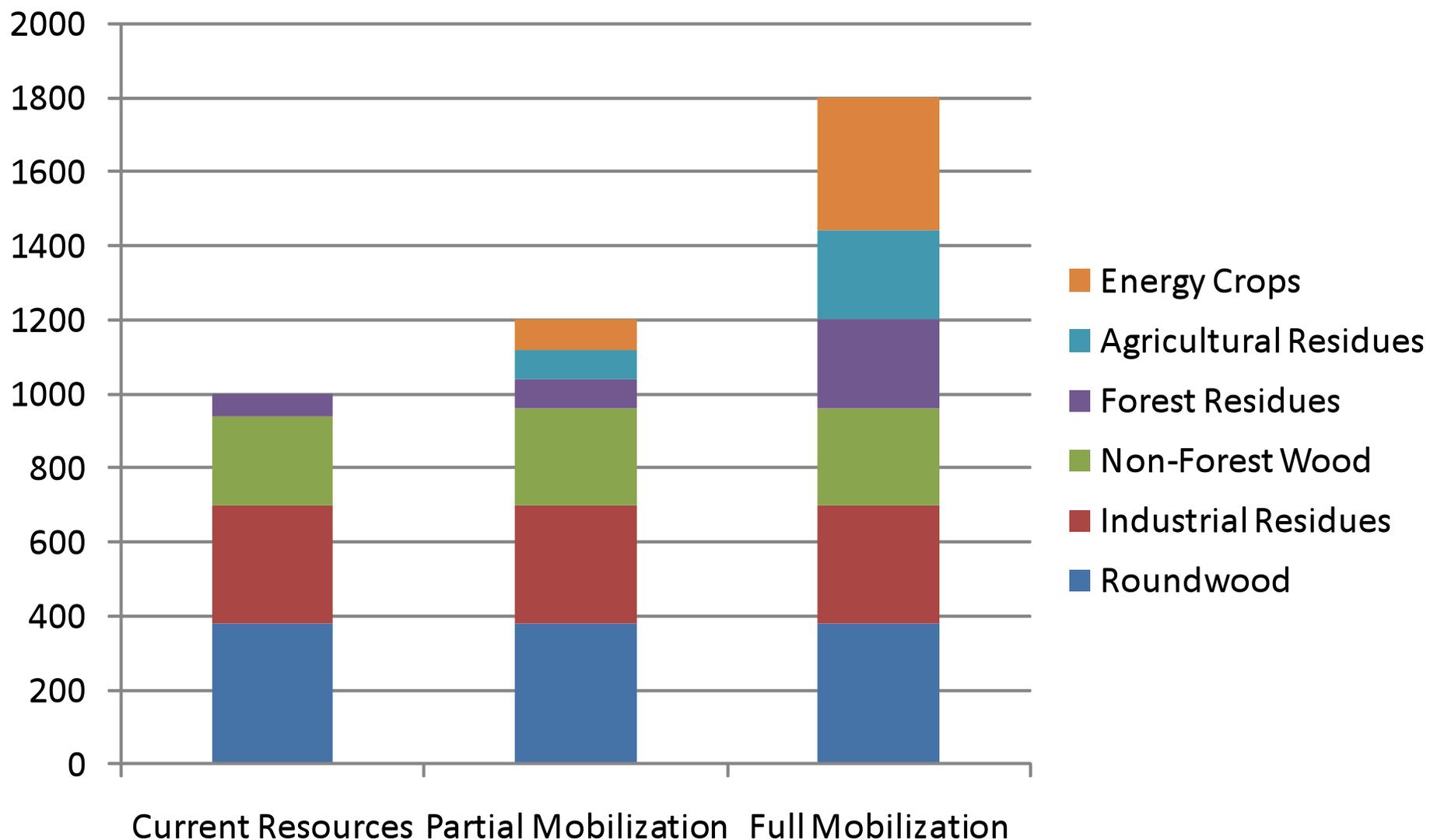
- Corn Ethanol
- Biomass Biodiesel
- Advanced Biofuels
- Cellulosic Biofuels

# Renewable Electricity Standard

Terawatt Hours/Year

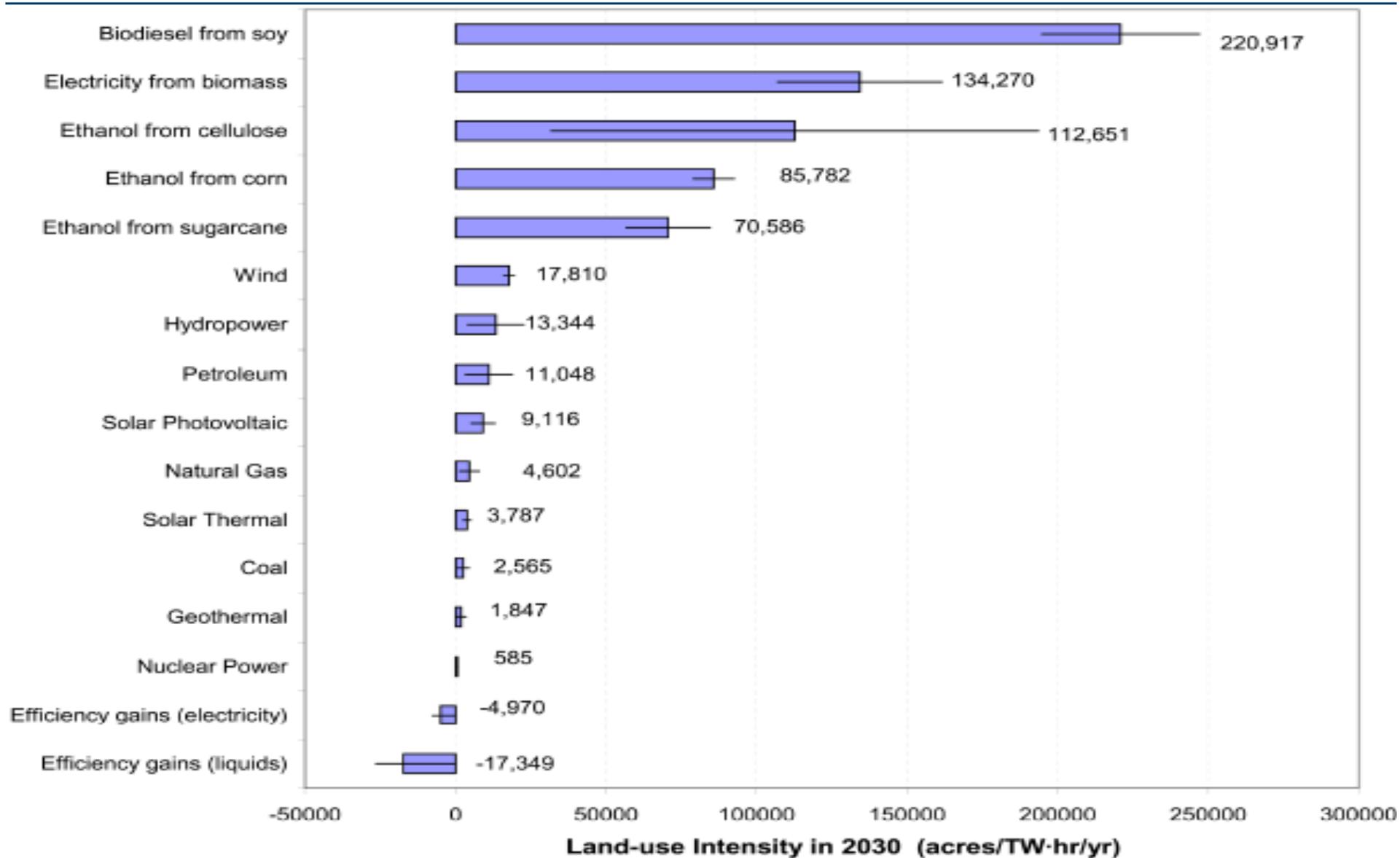


# EU Electricity from Biomass Terawatt Hours in 2030



# Energy Sprawl

## Acres per Terawatt Hour



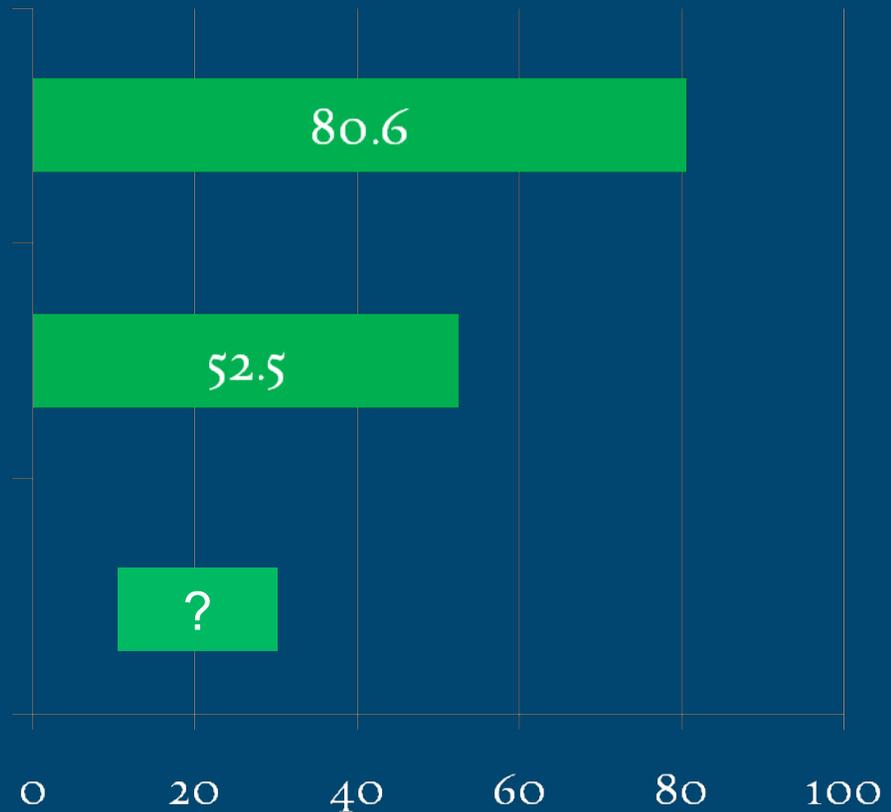
# Bioenergy Land Requirements U.S. in 2025

Millions of Acres of Land

600 Terawatt Hours  
Electricity

21 Billion Gallons Advanced  
Biofuels

European Wood Pellet  
Demand



# Conservation Benefits of Bioenergy

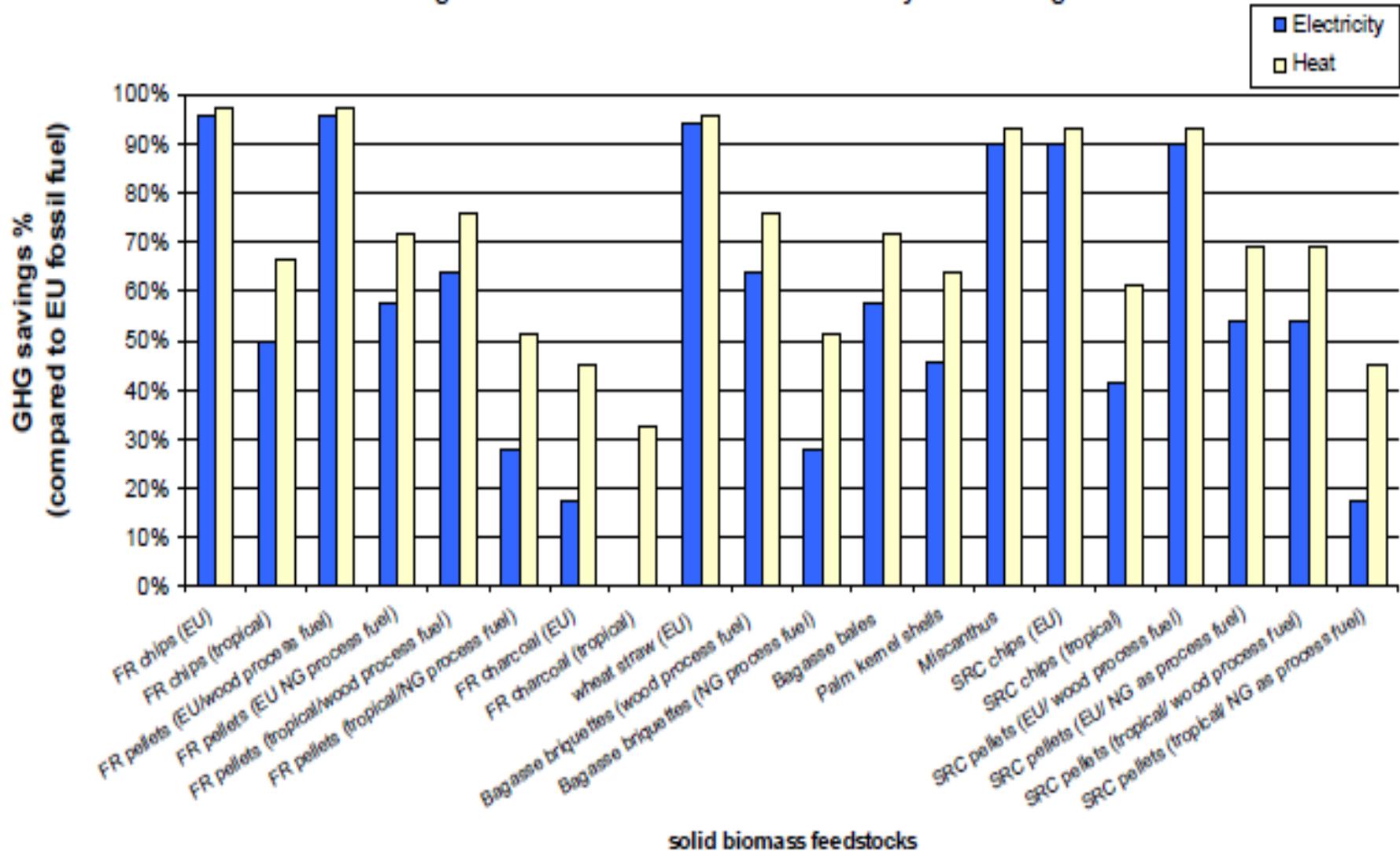
- Reducing greenhouse gas emissions especially in the long distance transportation sector
- Revenue for land owners to keep lands forested
- Revenue for ecosystem restoration projects that reduce hazardous fuel loads or remove invasive species
- Revenue for restoring degraded crop lands by planting perennial grasses

# TNC Bioenergy Principles

- There is not enough land available for biomass to make a significant contribution across all energy sectors. Choices need to be made.
- The carbon emissions reduction benefit from bioenergy is highly variable across energy sectors and conversion technologies.
- Certification systems that reward land owners and energy producers for good environmental practice can play an important role in assuring that the resource is managed sustainably.

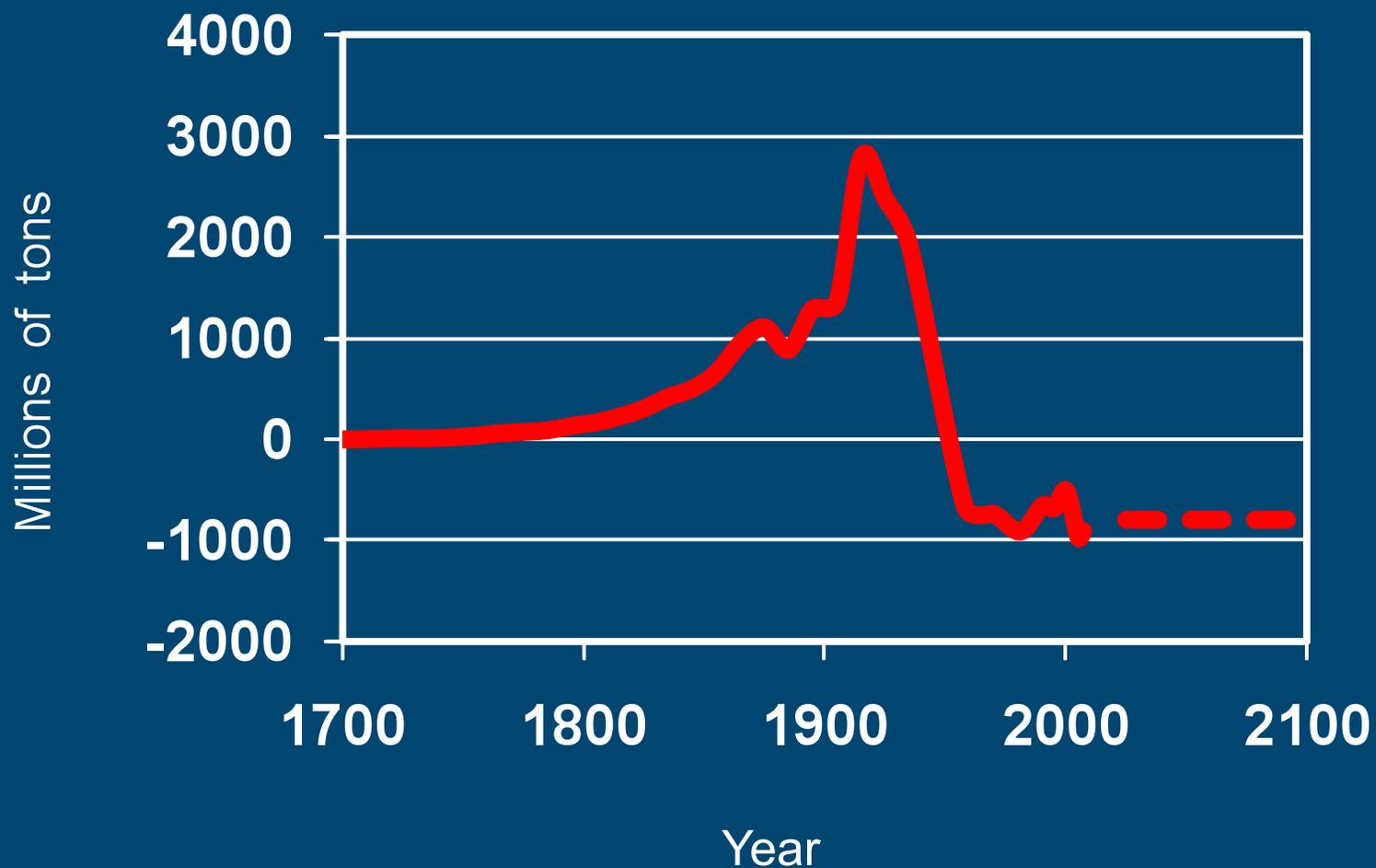
# EU Biomass GHG Reductions

GHG savings from solid biomass used in electricity and heating



# U.S. Land Use Change CO2 Emissions

Source: Birdsey et al 2008



# Policy Alternatives for Sustainable Biomass

- Definition of biomass for the Renewable Fuels Standard
  - Not from federal land
  - Not from naturally regenerating forest
  - Not from recently cleared forest
  
- A New Approach—Energy Facility Sourcing Plans
  - Simple inclusive definition of renewable biomass
  - Facilities work with state foresters on plans
  - Plans address soil, water, habitat, recreation
  - Use certification systems to assure implementation

# SFI-TNC Project Objectives

- Test the applicability of SFI Fiber Sourcing requirements to bioenergy feedstock procurement
- Develop a process to engage bioenergy companies in fiber procurement and assist them in establishing a responsible procurement system
- Use the outcomes of the project to interface with policymakers to demonstrate that voluntary certification of bioenergy facilities is an effective mechanism to assure sustainable production

# SFI-TNC Sourcing Project Elements

- 2 to 4 energy companies who are acquiring forest biomass from non-certified land
- Work with certified consultant/auditor
- Identify gaps from SFI standard and steps to close gaps
- Analyze the cost and impact of the standard on the energy producer
- Discuss project results with other stakeholders

# SFI-TNC Project Timeline

- Announcement: July 2011
- Select consultant: October 2011
- Recruit energy participants: December 2011
- Begin gap analysis: January 2012
- Preliminary results: Summer 2012
- Public dialogue: Fall 2012
- Final report: Spring 2013

# Questions or Comments

