

# BIOMASS POWER & MISSISSIPPI

*An Overview of Federal Policy & Politics*

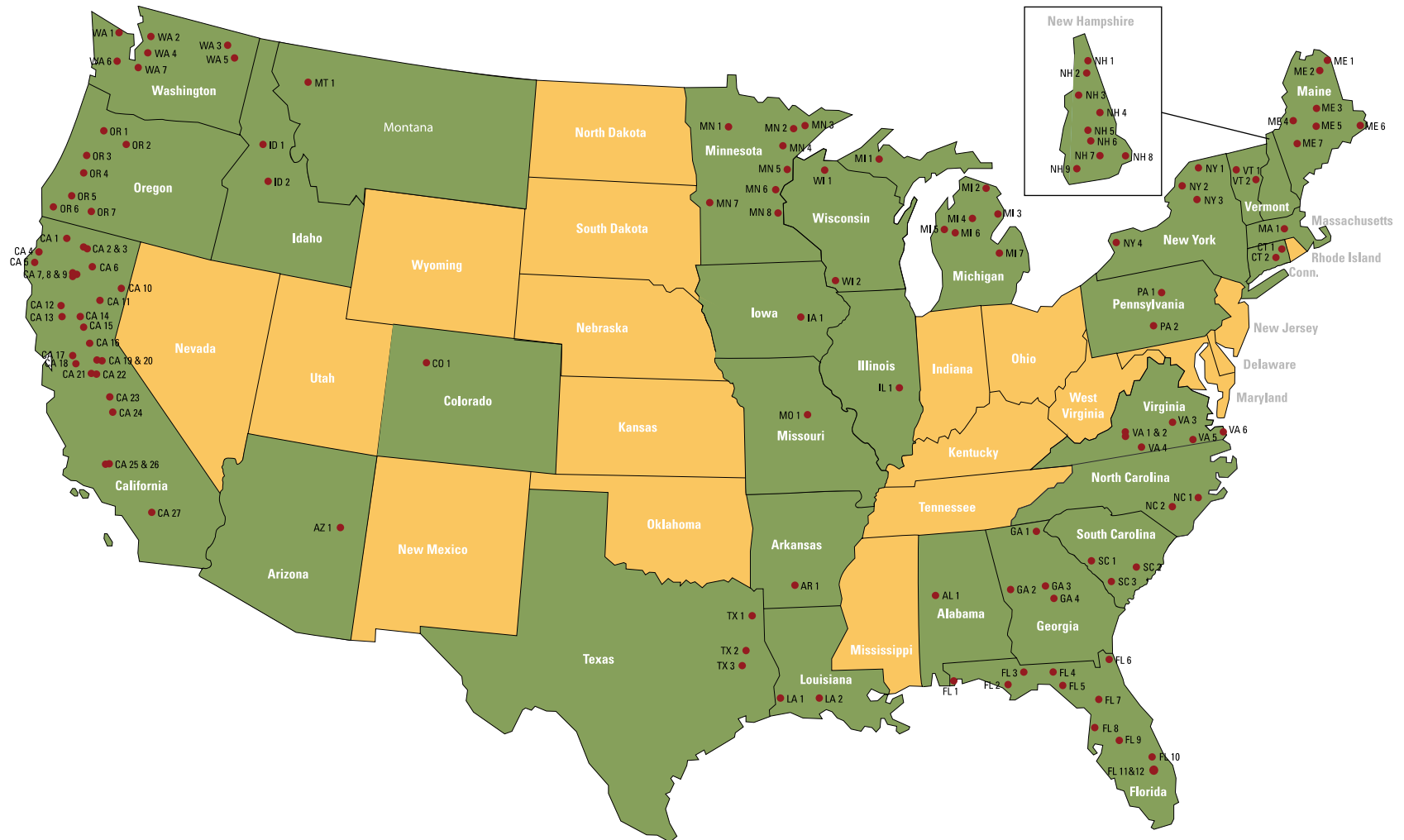
Carrie Annand  
Executive Director  
Biomass Power Association  
August 16, 2018



# BPA: At a Glance

- We represent biomass electricity in the United States
- 40+ members across the U.S. (primarily New England, California, Upper Midwest)
- Fuels: non-pelletized forestry & farm residues, urban wood waste
- Largest American facility is 100 MW, most between 20-40 MW

# Biomass in the United States



# THE ECONOMICS OF BIOMASS POWER

## LOW-VALUE BIOMASS, \$15-35/ton:

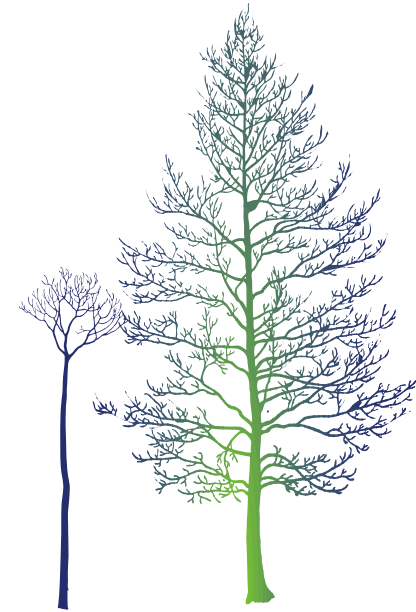
Using this material as fuel for energy, power producers are able to sell power for \$0.08 - 0.10 per kilowatt hour (Kwh), which is realistic given current energy prices.

## MERCHANTABLE PULPWOOD, \$35-55/ton:

To use this material as fuel for energy, power producers would need to sell power for \$0.10 - 0.13 per kilowatt hour (Kwh).

## SAWLOGS, \$55-80/ton:

To use this material as fuel for energy, power producers would need to sell power for \$0.13 - 0.165 per kilowatt hour (Kwh).



SAWLOGS



Fiber becomes less valuable →

WASTE  
BIOMASS



# Biomass: A Jobs Creator

- 20 states and 14,000 jobs across Rural America
- Biomass accounts for approx. 4 jobs per MW (direct and indirect)
- Supports foresters, farmers, loggers, landowners – creates more value by utilizing waste



# Forest Management



# Carbon Benefits



MAY 2017

## **Carbon Intensity of Harvesting Residue-Based Electricity: Case Study of Eversource Energy**

**Madhu Khanna**

Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign

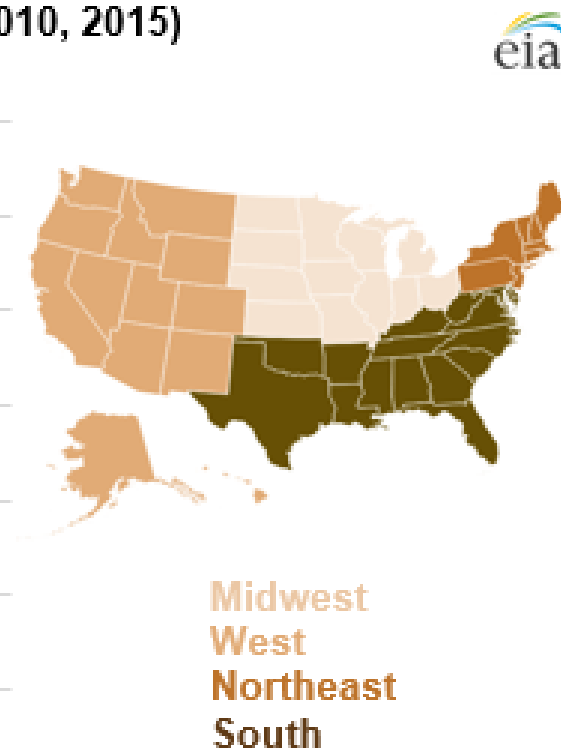
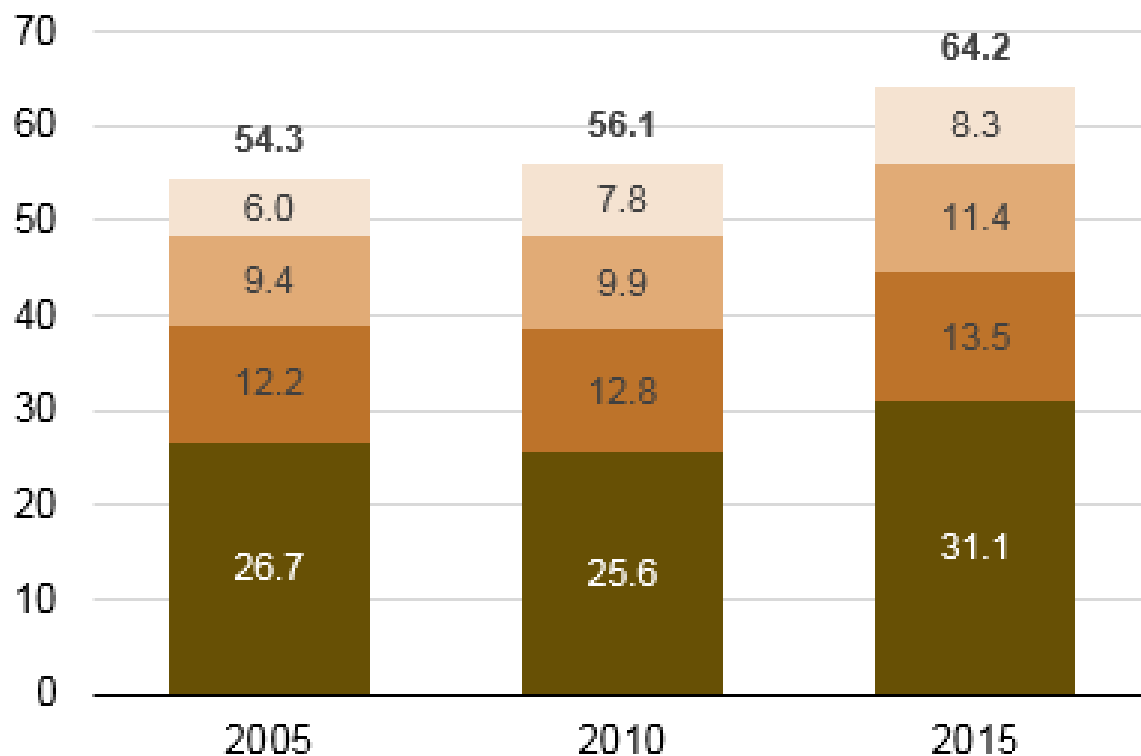
**Puneet Dwivedi**

Warnell School of Forestry and Natural Resources, University of Georgia

COMMISSIONED BY BIOMASS POWER ASSOCIATION

# Biomass Growth in the U.S.

Biomass electricity generation in the United States (2005, 2010, 2015)  
terawatt-hours

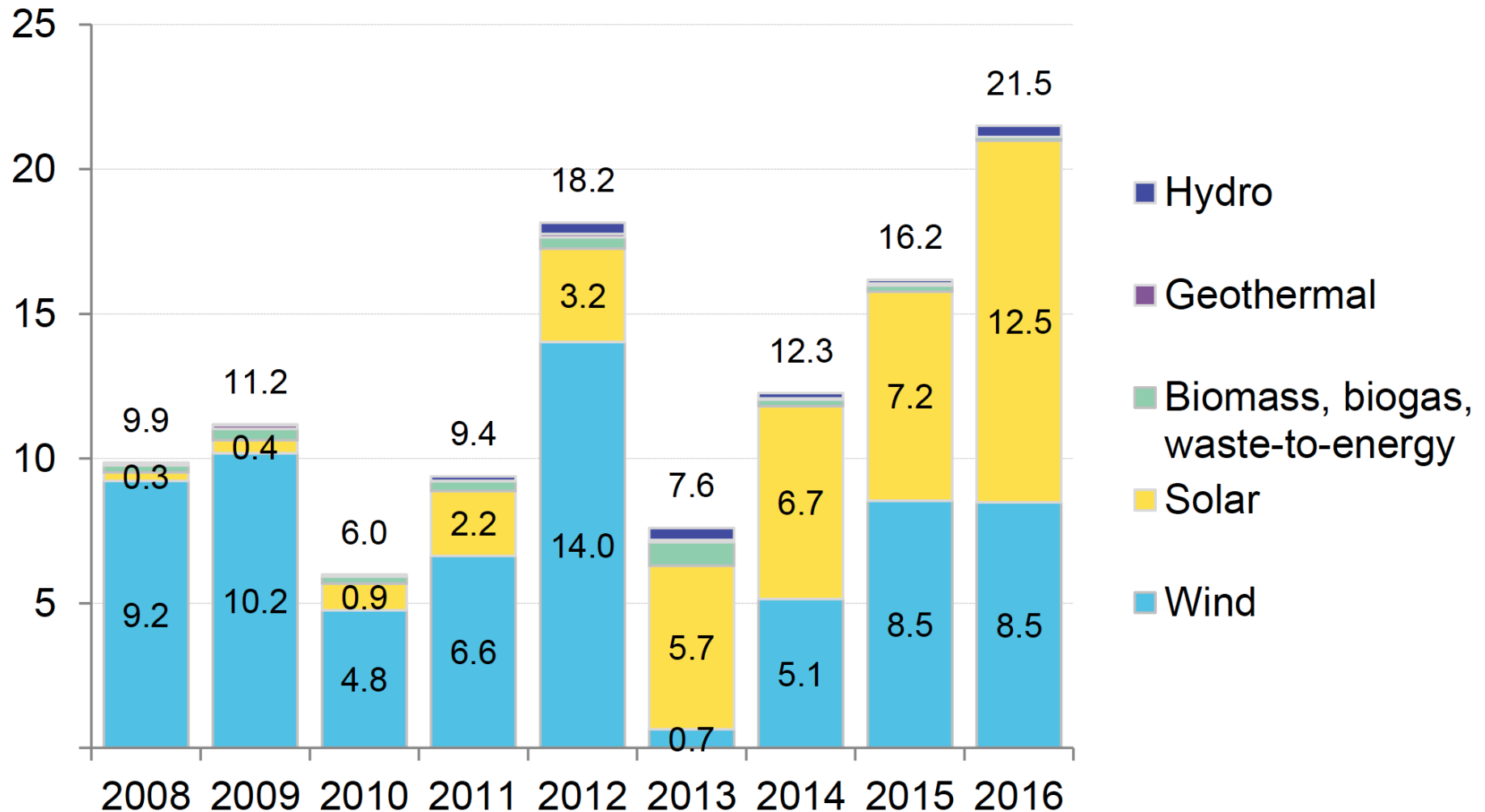


# Policy Opportunities for MS

- Tax incentives to supplement federal policy
- Co-location of industries / warehouses /factories / biofuels production with biomass power facilities
- Carbon capture & sequestration
- Support BPA efforts to qualify biomass under the Renewable Fuel Standard

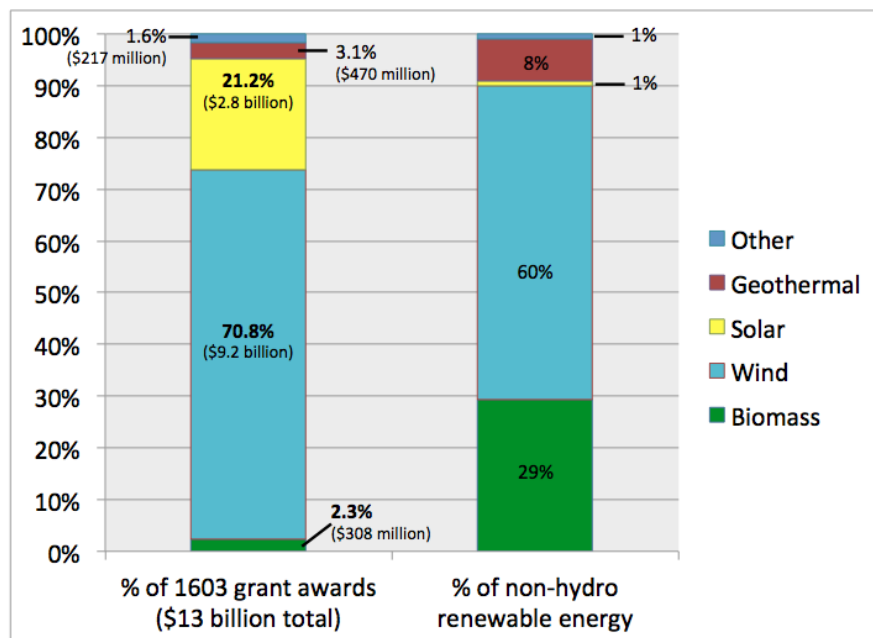


# The Story of Renewable Energy--Solar and Wind at the Expense of Baseload



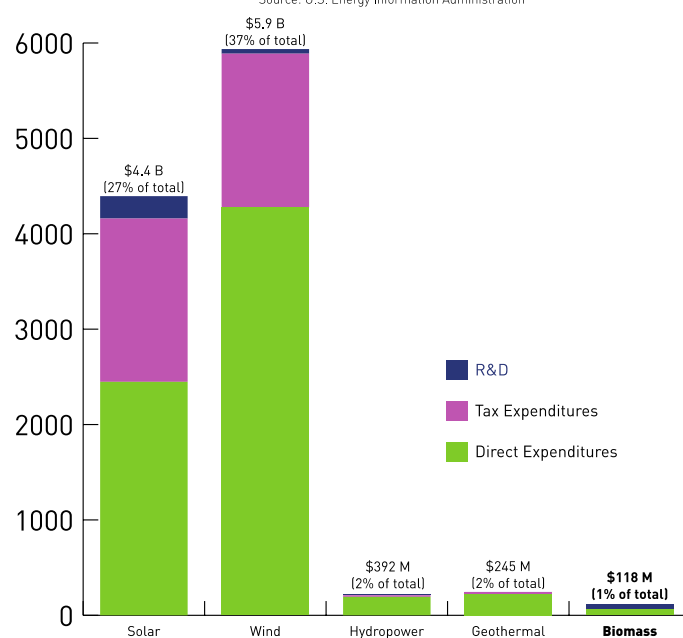
# Unlevel Playing Field

Percentages of 1603 Grant Awards Compared to Renewable Energy Contributions (as of 7/20/2012)

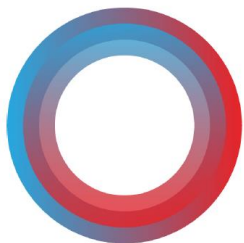
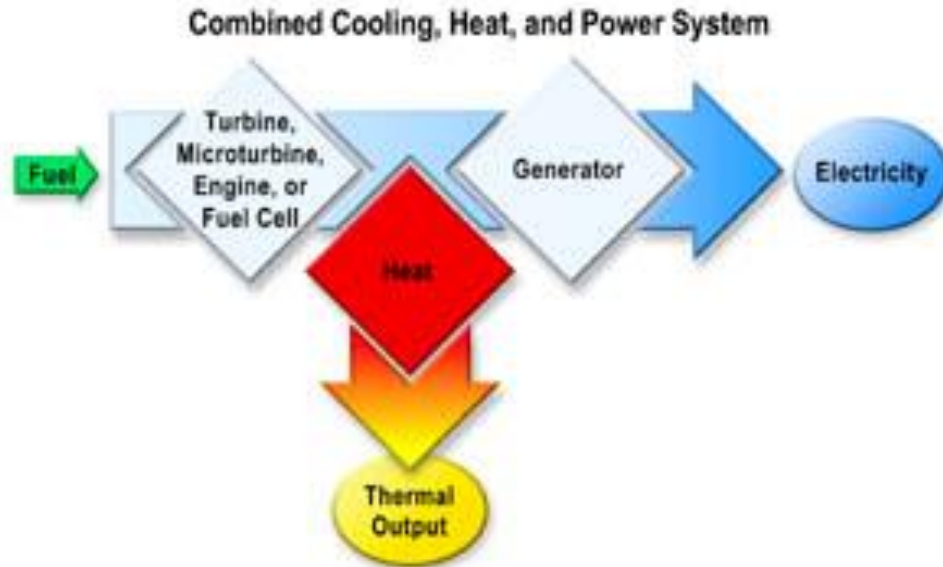


Fiscal Year 2013 Electricity Production Subsidies and Support  
Millions, 2013 US\$

Source: U.S. Energy Information Administration



# Co-Location & Thermal Utilization



**RENEWABLE  
THERMAL  
COLLABORATIVE**



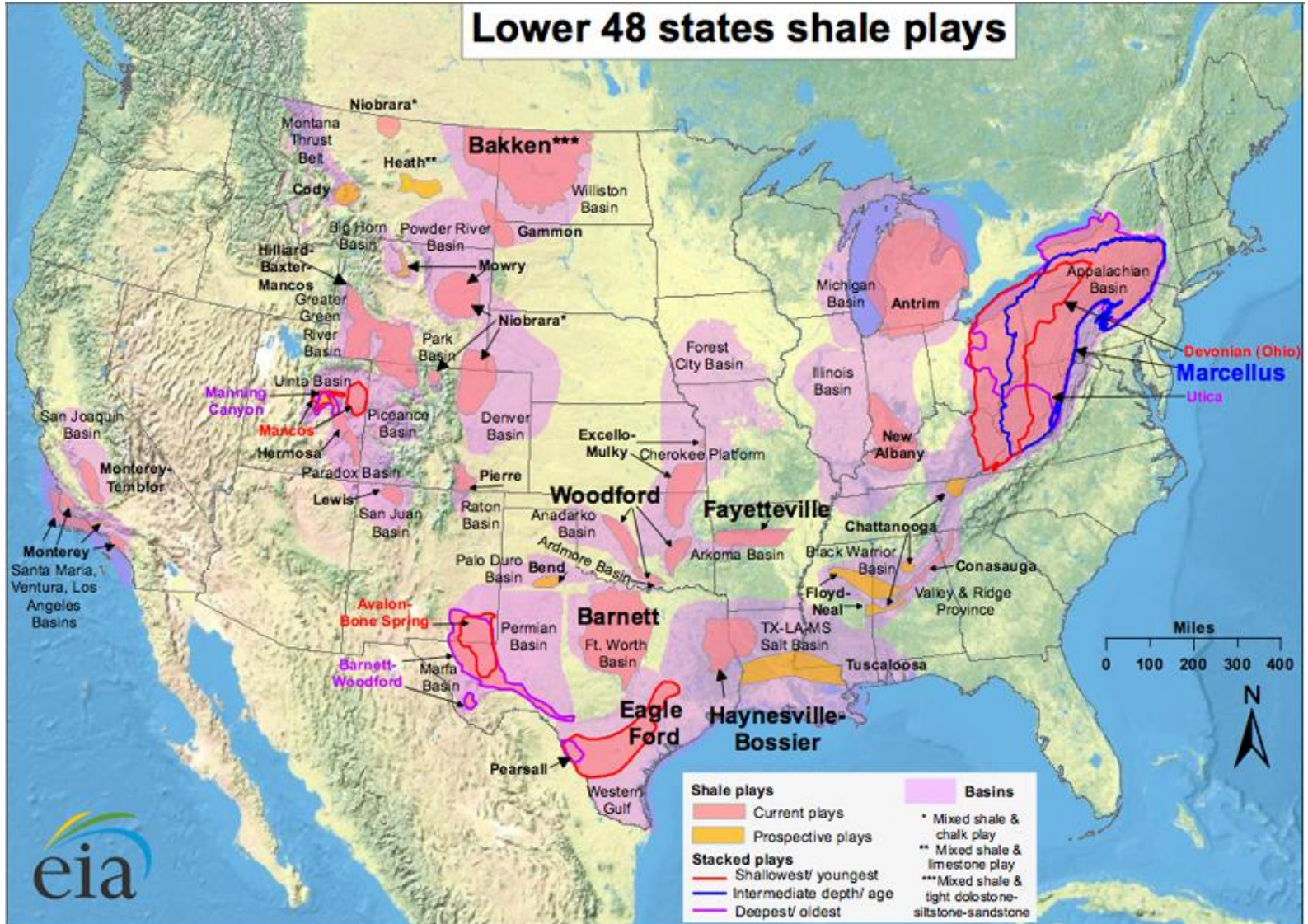
**Kimberly-Clark**

**MARS**  
incorporated

**Cargill**<sup>™</sup>



## 45Q: Making CCS a Reality



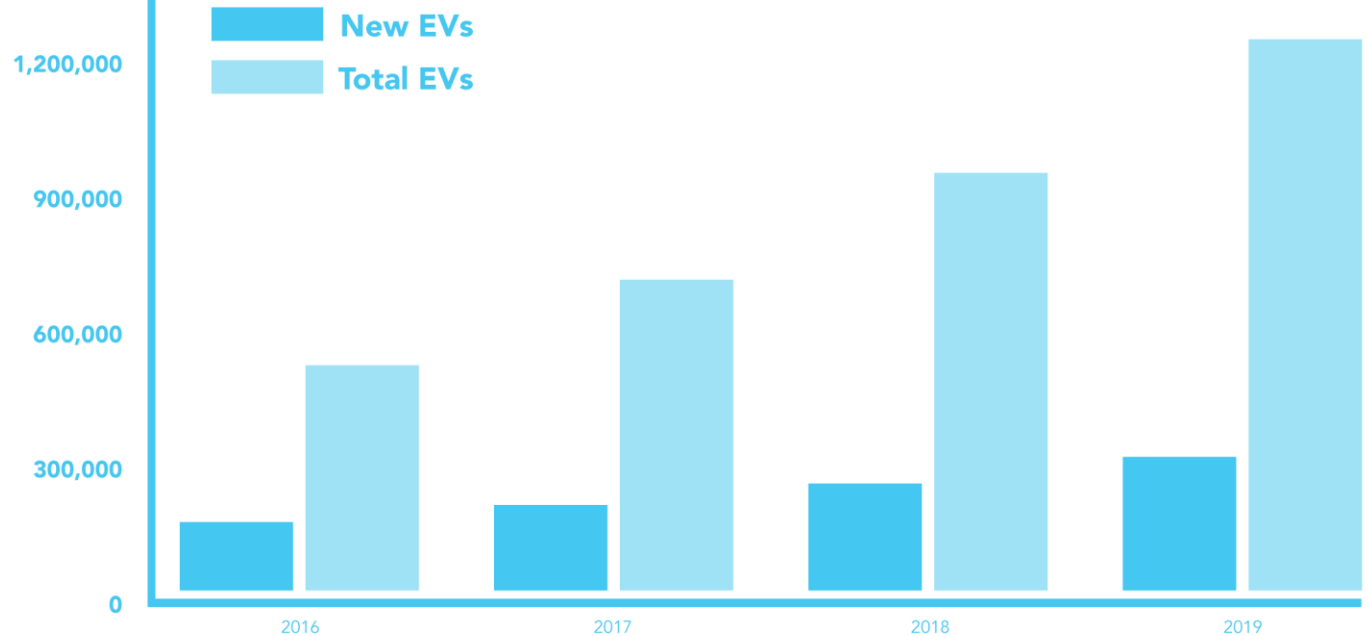
# RFS: Giving Biomass the Credit it is due



1,500,000  
1,200,000  
900,000  
600,000  
300,000  
0

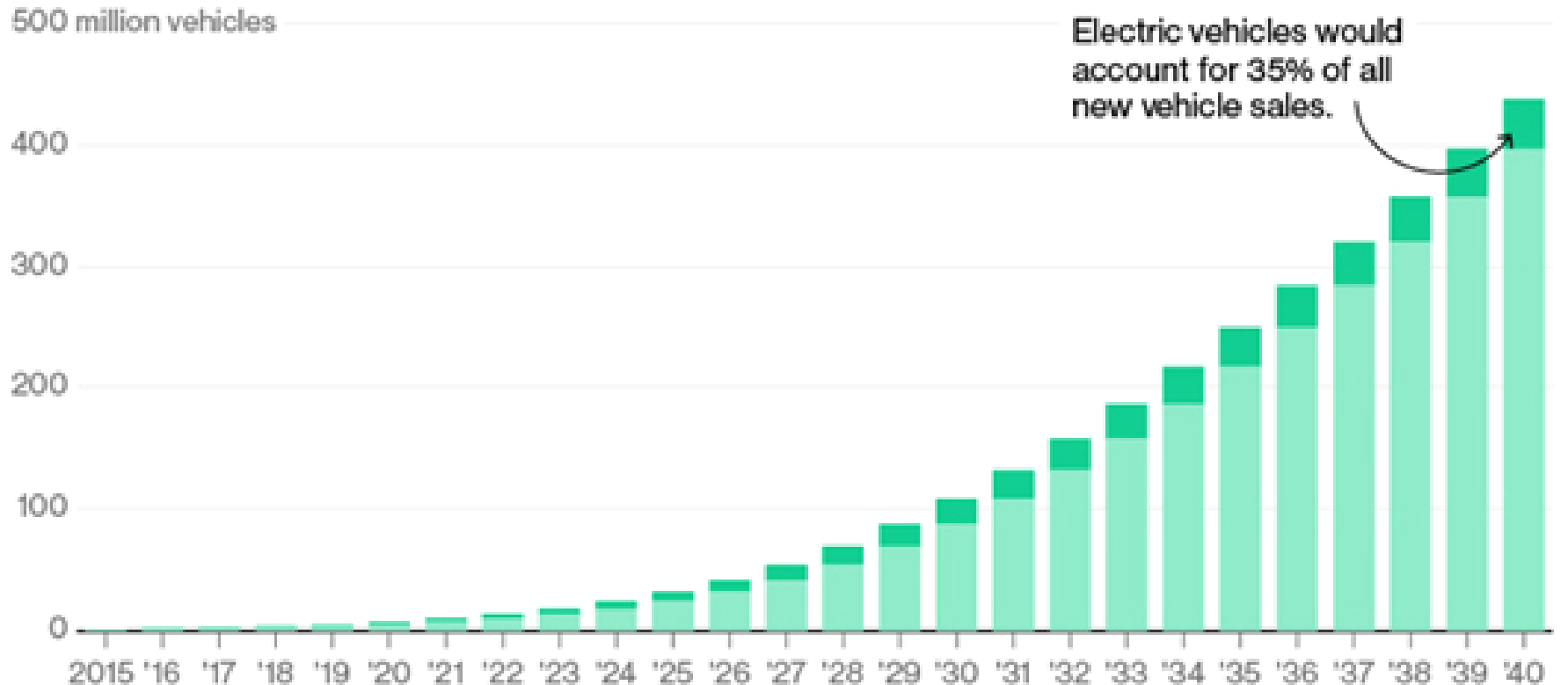
Total cars sold in the US per year  
17,500,000

blog.ev-box.com



# The Rise Of Electric Cars

■ Projected Annual Sales   ■ Cumulative Sales



Sources: Data compiled by Bloomberg New Energy Finance, Marklines

# Contact Us

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