ETHANOL SUMMIT 2013

Bioeletricidade da cana

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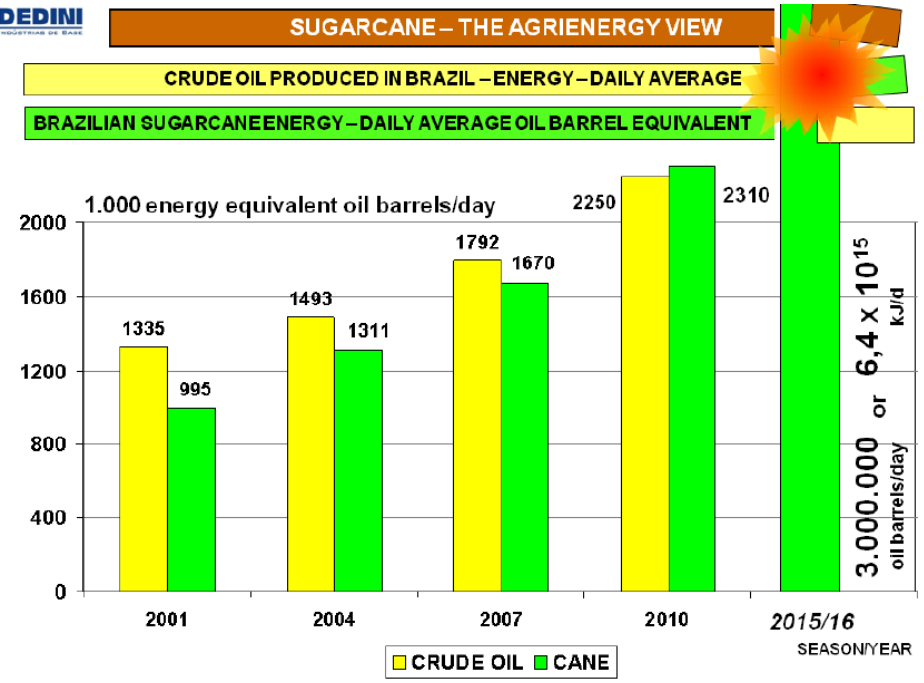
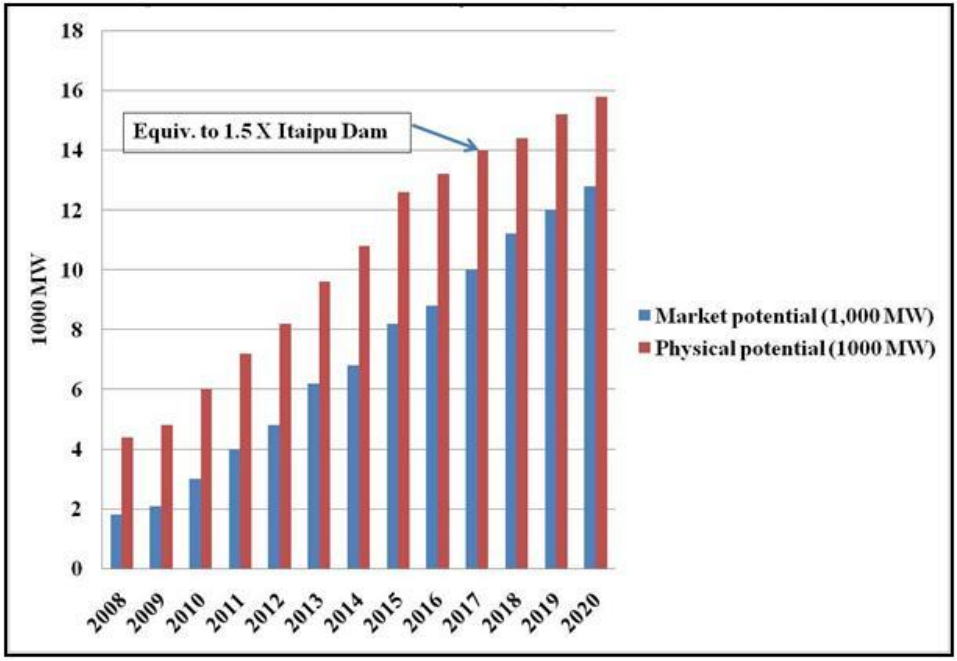
São Paulo, 27 de Junho 2013

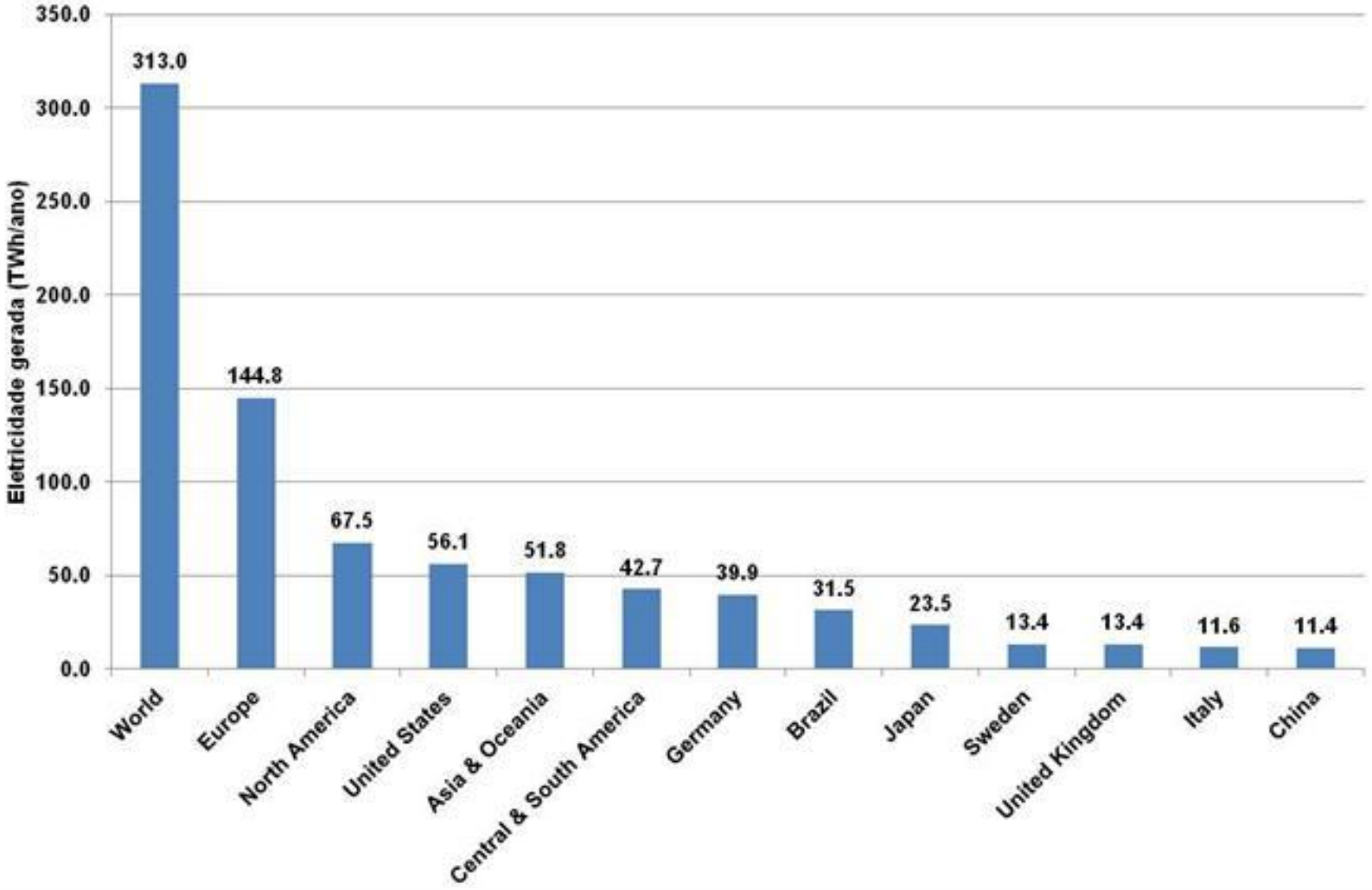
Primary energy from sugar cane



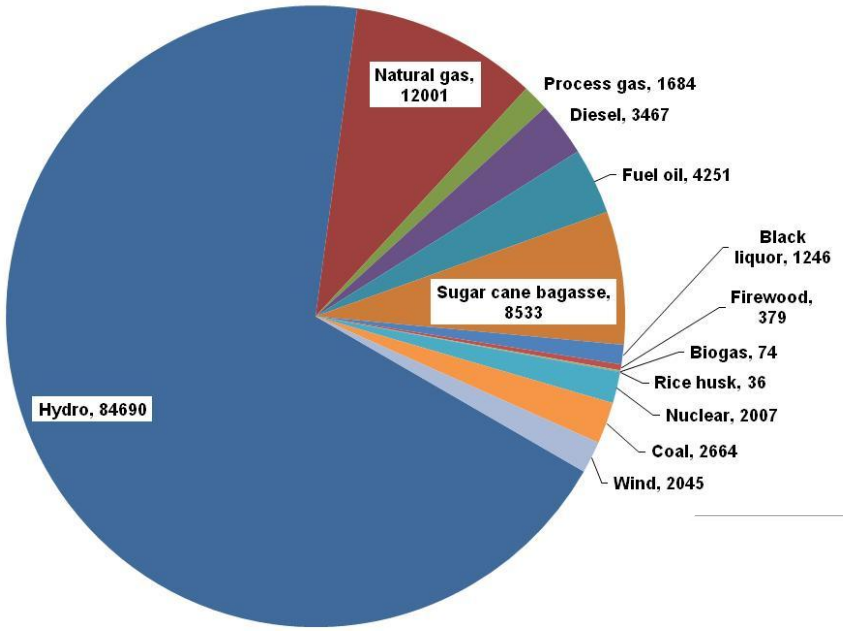
Potential bioelectricity from sugar cane – Brazil 2008-2020



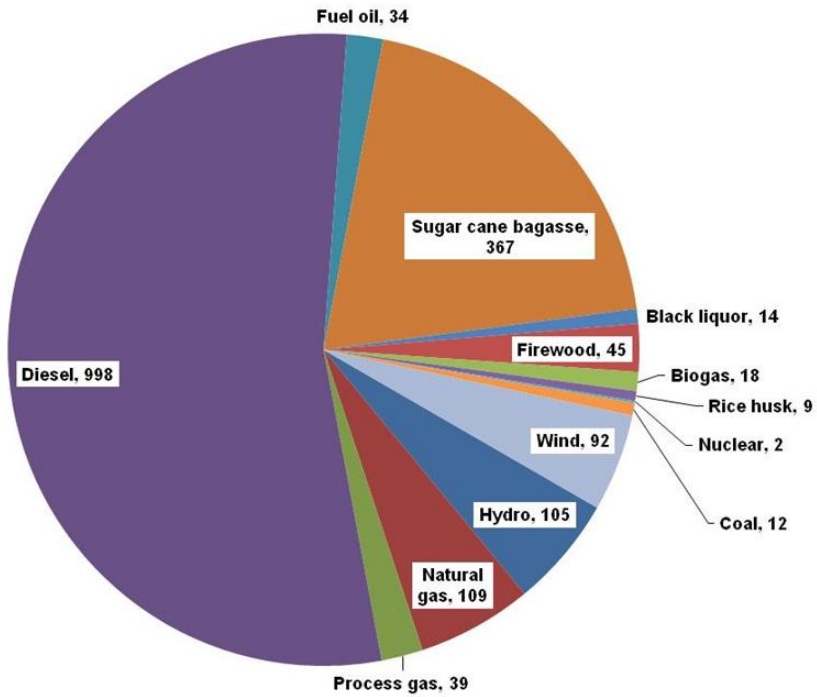
Global bioelectricity generation from biomass and wastes – Major countries and regions - 2012



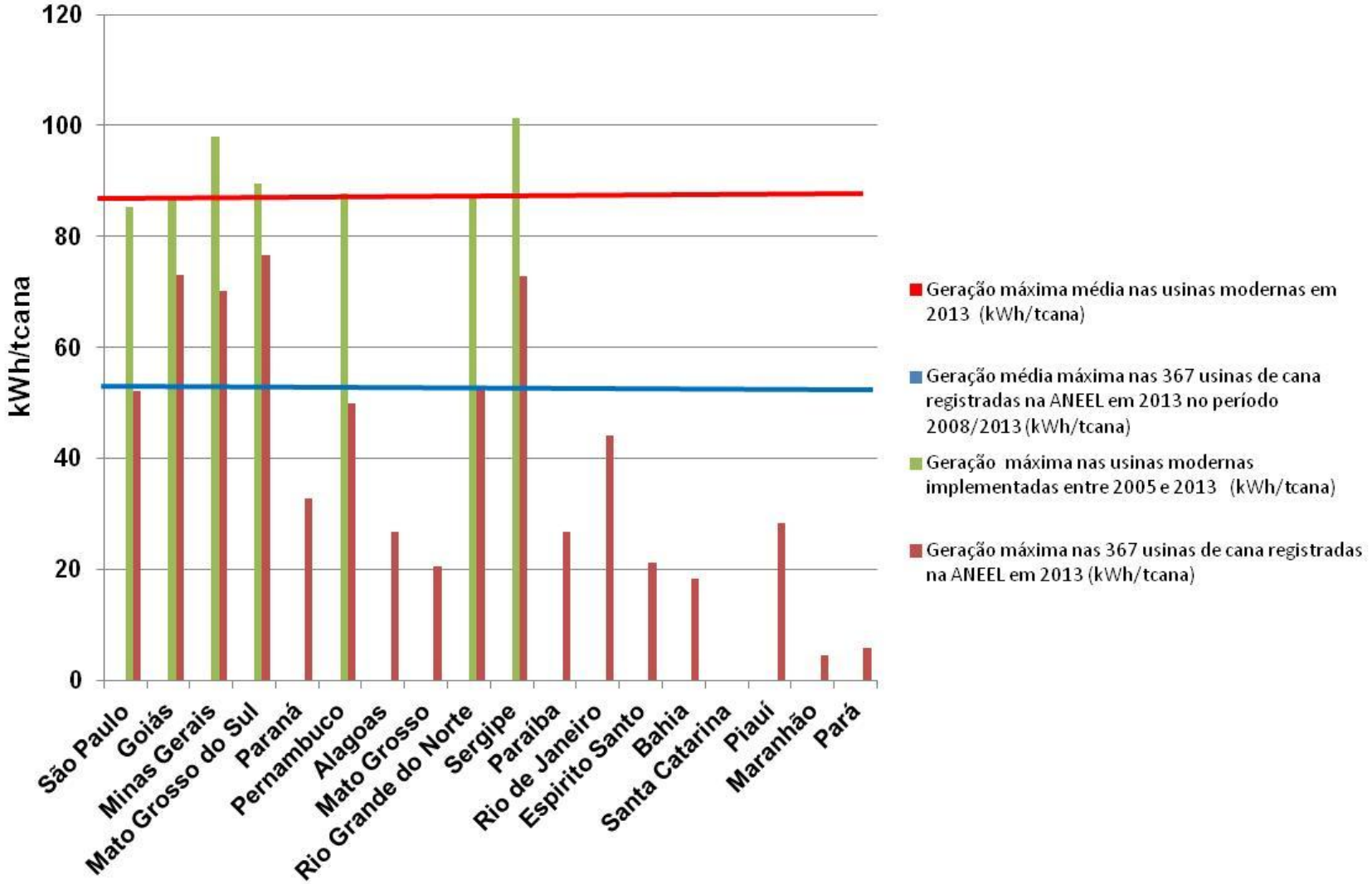
Instaled Power Profile (MW) -Brazil 2012



Nimber of power plants - Brazil 2012

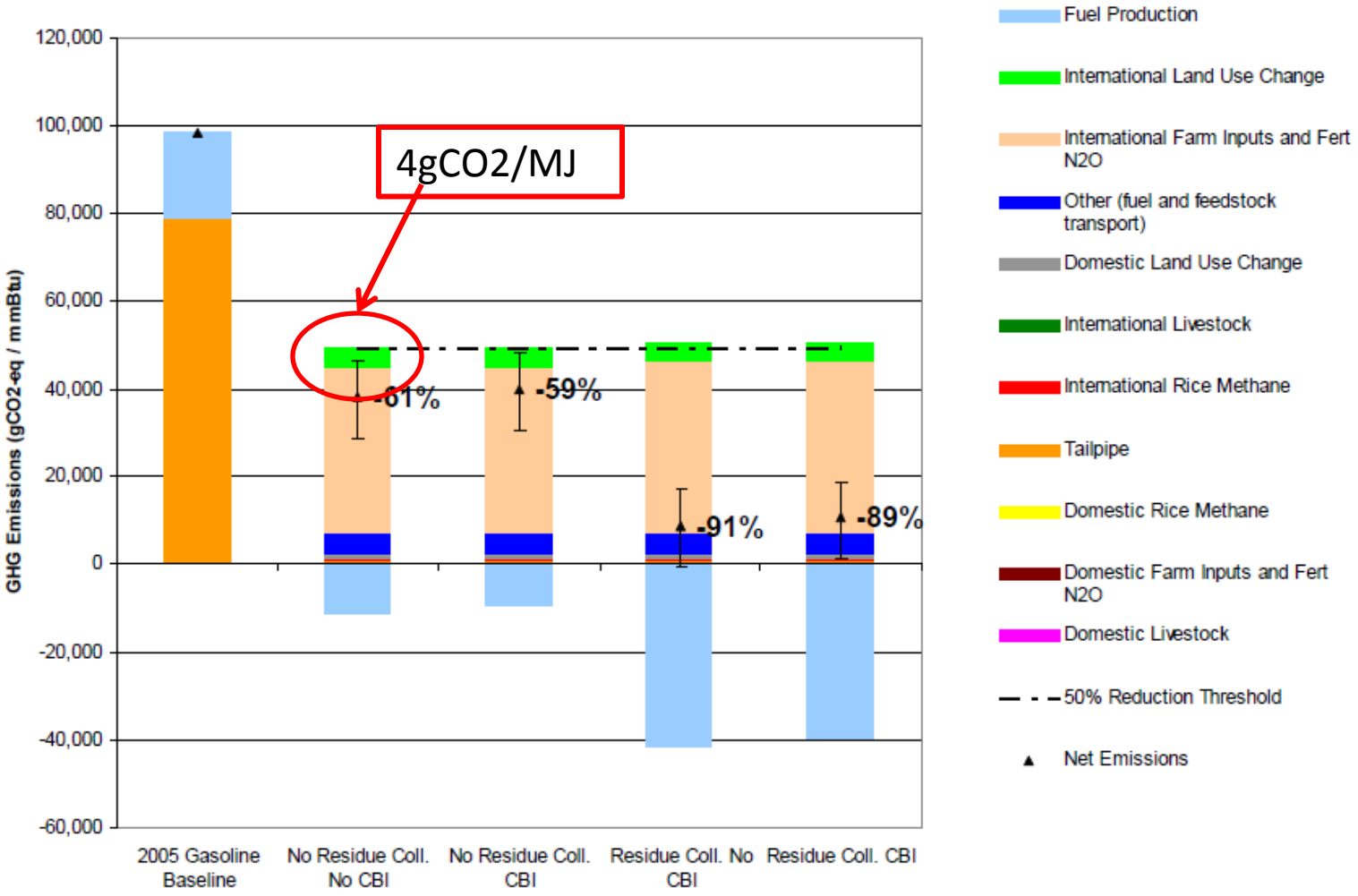


Eletricidade Potencial Máxima gerada nas safras entre 2008/09 até 2012/13 se todo o bagaço fosse usado para gerar eletricidade

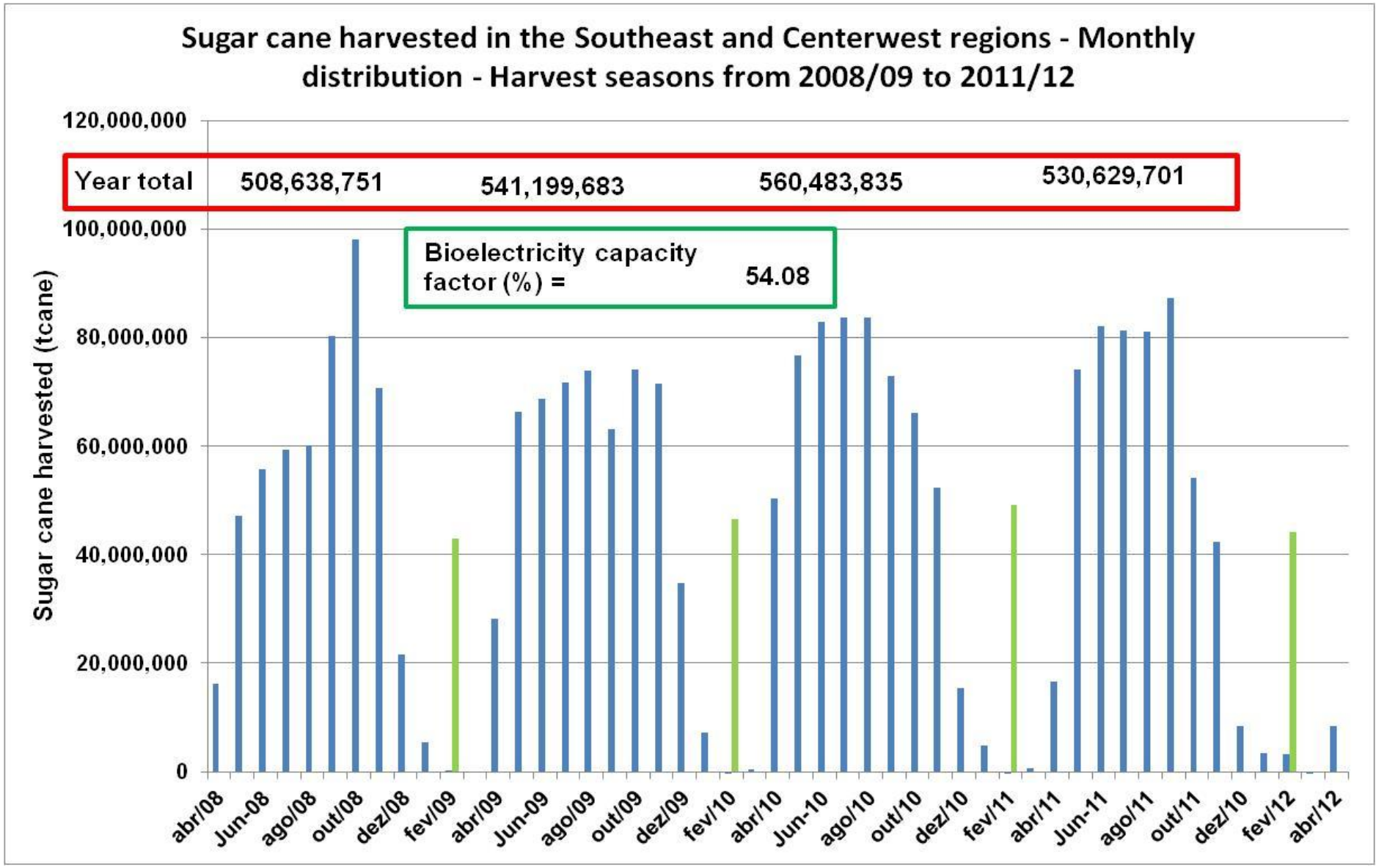


SUGAR CANE ETHANOL = ADVANCED ETHANOL IN USA

Figure 2.6-10. Results for Sugarcane Ethanol by Lifecycle Stage With and without residue collection and CBI



Source: EPA, 2010


Sugar cane harvested in the Southeast and Centerwest regions - Monthly distribution - Harvest seasons from 2008/09 to 2011/12
Year total
508,638,751
541,199,683
560,483,835
530,629,701
Bioelectricity capacity factor (%) =
54.08
Sugar cane harvested (tcane)
120,000,000
100,000,000
80,000,000
60,000,000
40,000,000
20,000,000
0
abr/08
Jun-08
ago/08
out/08
dez/08
fev/09
abr/09
Jun-09
ago/09
out/09
dez/09
fev/10
abr/10
Jun-10
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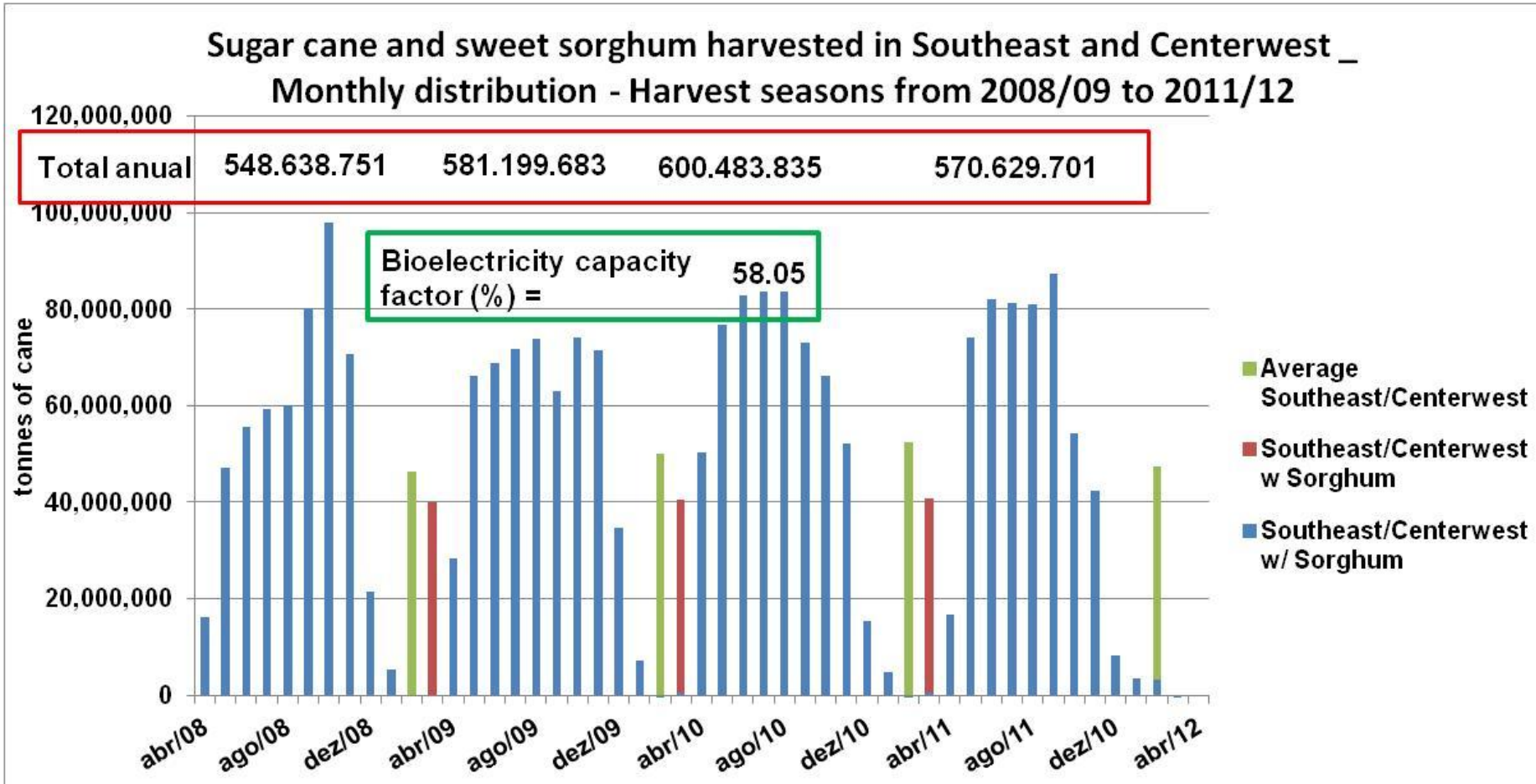
Jun-11
ago/11
out/11
dez/10
fev/12
abr/12



	Load fac. (%)	Invest. (US$/kW)	Payback (yrs)	Annual rev. w/ interest (US$)	Electricity (kWh/ano)	Cost (US$/MWh)	Annual rev. 5% interest (US$)	Cost (US$/MWh)
Wind	35	1500	15	100	3066	32.62	175	57.08
Cane	54	2500	15	167	4730	35.30	292	61.73
Cane+sorghum	58	2500	15	167	5081	32.87	292	57.47