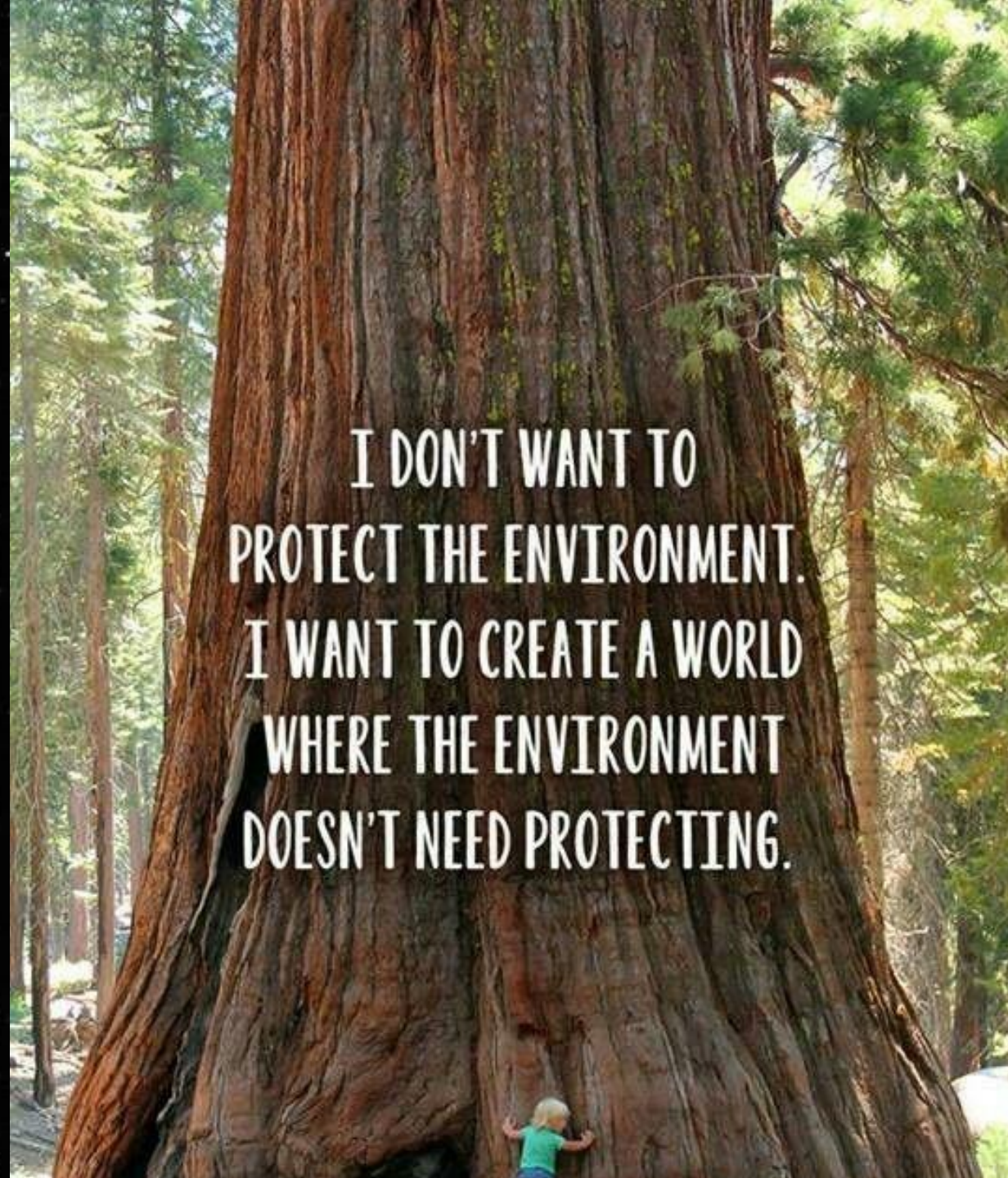


Environment and Engineering



Remember,
There is NO
Planet 'B'.

Tan Branscomb for BILL I MOOSE CAFE

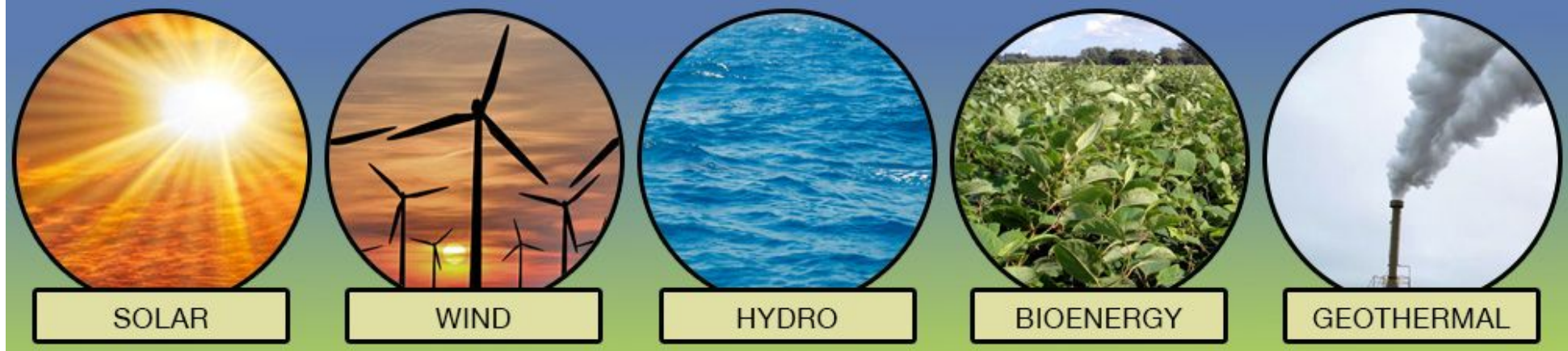


I DON'T WANT TO
PROTECT THE ENVIRONMENT.
I WANT TO CREATE A WORLD
WHERE THE ENVIRONMENT
DOESN'T NEED PROTECTING.



Issues





- renewable energy
- Water and waste management



Electric vs. Gasoline

No Tailpipe Emissions



Greenhouse Gases/Pollution

Utility Company



OPEC

100+/- Mile Range



300+ Mile Range

Hours to Recharge

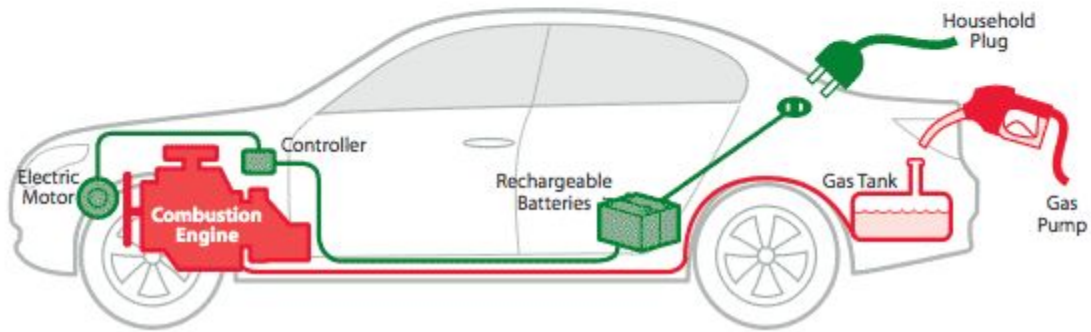


Minutes to Refuel

2 cents per mile

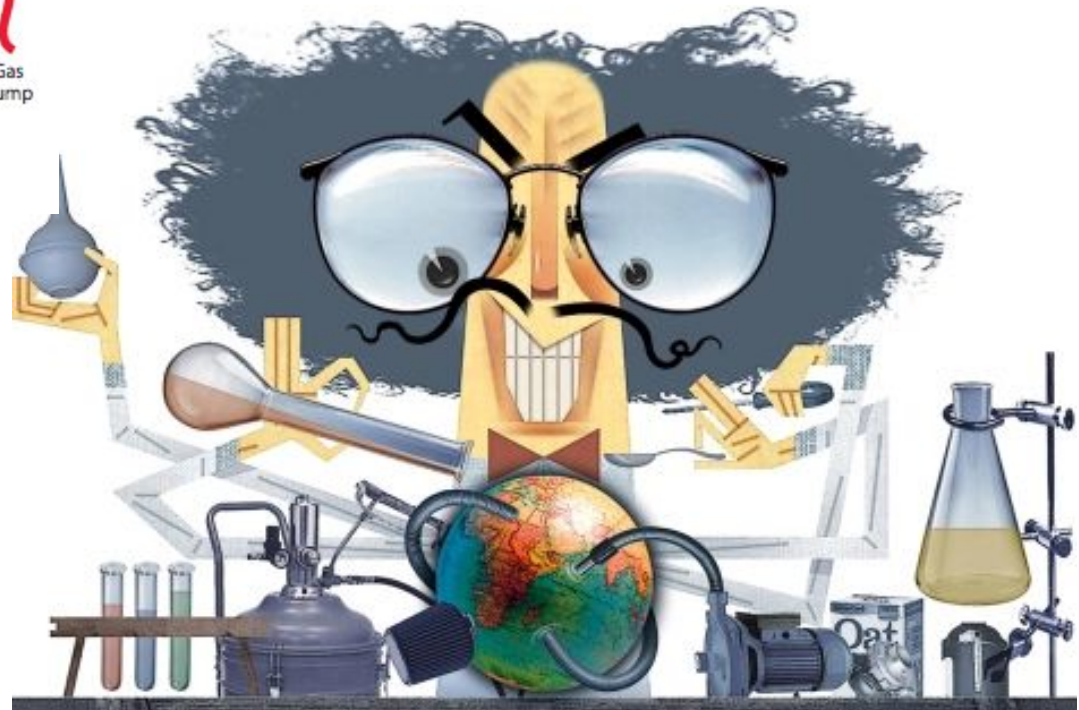


12 cents+ per mile



•Alternative transport

•Geoengineering





Major index movements

Current rank and positions moved in 2015

India	3	▲ 3
Chile	9	▲ 3
Morocco	23	▲ 4
UK	11	▼ 4
Australia	13	▼ 3
Spain	25	▼ 4

437

major multinationals are now applying internal carbon pricing

↑ 30% on 2014

(plus additional 583+ to incorporate within two years)



\$161b solar (including \$67b in small distributed capacity)



\$41.8b

labeled green bonds issued

46% proceeds to renewable energy
20% proceeds to energy efficiency

\$41b in smart, digital and storage technologies

Record
\$329b
new clean energy investment

\$109b in wind (including \$23b offshore)

Top 15 markets (\$b)

Wind and solar represented around

50%

of all new generating capacity added in 2015 (including conventional power)



New 2015	GW
Utility PV	33.0
Commercial PV	15.2
Residential PV	8.3
CSP	0.3
Total solar	56.8

50%

of all new generating capacity added in 2015 (including conventional power)

New wind and solar capacity installed in 2015 by region

(including % change on 2014 additions)

North America



8.9GW

↑6%



12.1GW

↑57%

Central/ South America



1.7GW

↑78%



4.2GW

↑0%

Top 15 markets (\$b)

China 110.5
US 56.0
Japan 43.6
UK 23.4
India 10.9
Germany 10.6
Brazil 7.5
South Africa 4.5
Mexico 4.2
Canada 4.0
France 2.9
Australia 2.9
South Korea 2.5
Morocco 2.0
Italy 1.5
Other
Europe 20.1
Asia-Pacific 9.1
MEA 6.9
Americas 5.9

109b in wind (including \$23b offshore)

Europe



8.3GW

↑10%



15.1GW

↑33%

Middle East and Africa



1.8GW

↑13%



1.0GW

↑0%

Asia-Pacific



36.0GW

↑33%



31.5GW

↑29%



New 2015 GW	
Utility PV	33.0
Commercial PV	15.2
Residential PV	8.3
CSP	0.3
Total solar	56.8



Onshore	59.5
Offshore	4.4
Total wind	63.9

The End

**In the trees, in the breeze...
seek Nature's peace and bliss.**