

The Economic Costs and Benefits of Climate Policy

Nick Loris

The Heritage Foundation

June 6, 2019



No matter what the climate policy is...

- Green New Deal
- Carbon Tax
- Cap-and-trade
- Clean Power Plan/New Source Performance Standards for Power Plants
- Social Cost of Carbon
- Paris Climate Accord
- Renewable Electricity Standards
- Subsidies for GHG-free energy sources and technologies

All cost (both economic and environmental)

- Stranded Assets
- Cronyism and Government Allocation of Resources
- Unintended Environmental Consequences
 - Land use, wildlife
 - Exporting mining/manufacturing activities
- Regressive Impact/Energy rationing
- Massive wealth transfer from rural, exurban, suburban regions to urban areas

All cost (Using EIA's NEMS Model)

The cost of the Green New Deal (using a \$300 per ton co2 tax):

- Avg employment shortfall of over 1.2 million jobs (peak shortfall of over 5.8 million jobs)
- Over \$14.8 trillion loss in GDP (\$24.2 trillion through 2050).
- Loss of income of over \$164,000 for a family of four
- Avg 30% increase in household electricity expenditures
- **58.1% reduction in CO2 emissions (2010 levels) by 2050.**

Costs to the Mining Industry

Sector	Coal Mining (National)	Coal Mining (Rocky Mountain Region)	Other Mining & Quarrying (National)	Other Mining and Quarrying (Rocky Mountain Region)
Avg Job Loss (2019-2045)	29,493	7,838	370	170
Peak Job Loss	34,550	9,760	6,770	2000
Avg Production Loss (2019-2045)		\$5.26 billion		\$377 million
Peak Production Loss		\$5.82 billion		\$2.1 billion

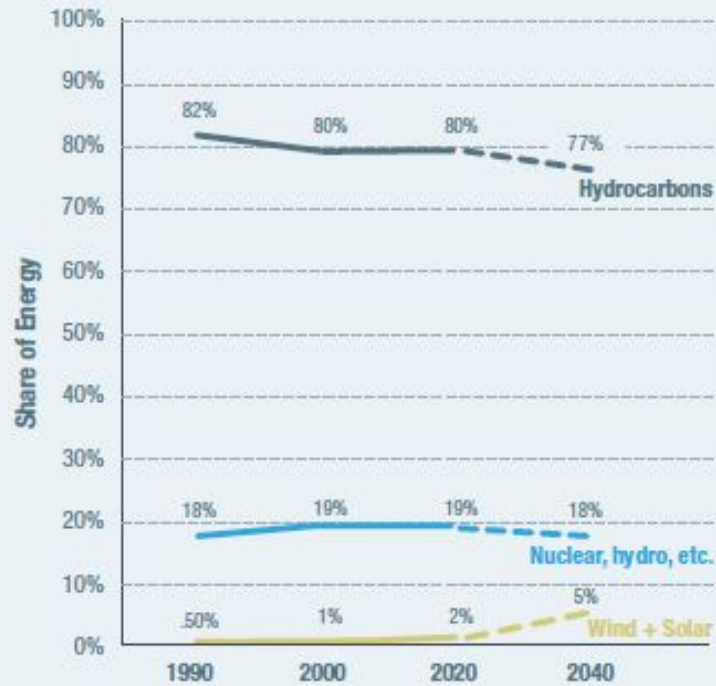
No benefit

- Climate effect by 2100 using MAGICC Climate Model:
 - 0.083-0.173° Celsius abated warming
 - 2cm of sea level rise reduction
- Climate effect of the Paris climate accords
 - 0.17-0.4° Celsius abated warming by 2100
 - 3-5 cm of abated sea level warming

Affordable, Reliable Energy is Priority

FIGURE 1.

How the World Is Fueled



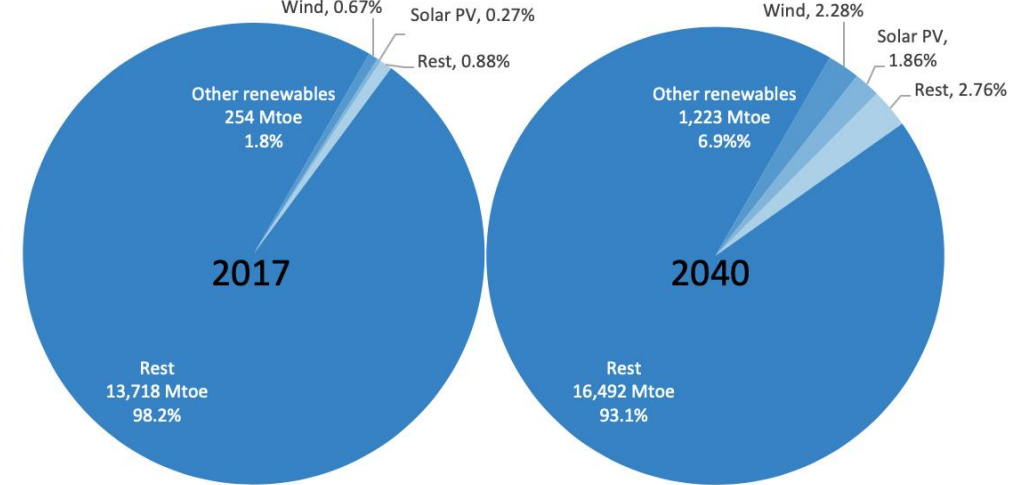
Source: ExxonMobil, "2018 Outlook for Energy: A View to 2040"; Energy Information Agency (EIA), "International Energy Statistics"

International Energy Agency 2018 World New Policies Scenario

	Energy demand (Mtoe)						
	2000	2016	2017e	2025	2030	2035	2040
TPED	10 027	13 708	13 972	15 388	16 167	16 926	17 715
Coal	2 308	3 720	3 750	3 768	3 783	3 793	3 809
Oil	3 665	4 364	4 435	4 754	4 830	4 842	4 894
Gas	2 071	3 022	3 107	3 539	3 820	4 132	4 436
Nuclear	675	679	688	805	848	918	971
Hydro	225	348	353	415	458	496	531
Bioenergy	1 022	1 350	1 385	1 590	1 691	1 776	1 851
Other renewables	60	224	254	516	736	968	1 223

Solar PV & Wind: **0.9%**

Solar PV & Wind: **4.1%**

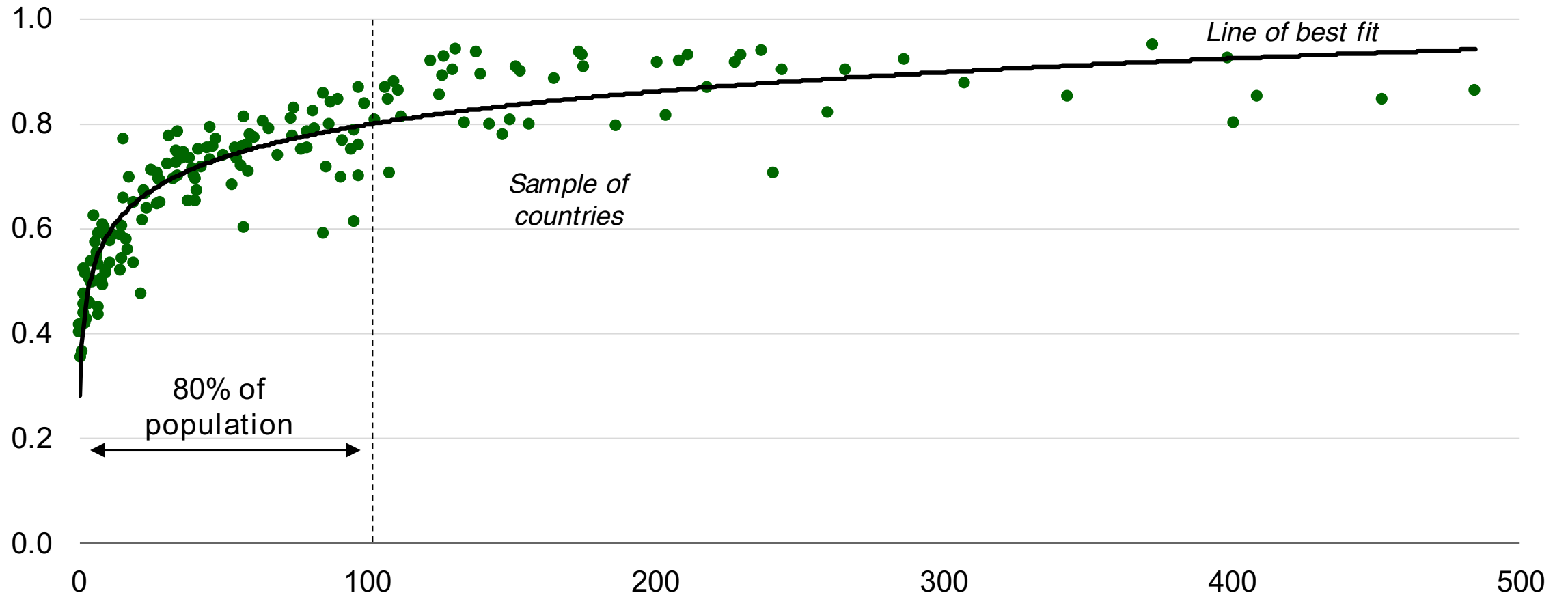


A word on the Social Cost of Carbon

- 3 statistical models used (Integrated assessment models)
- Changes in discount rates and equilibrium climate sensitivities produce widely different estimates

Discount rates	2.50%	3.00%	5.00%	7.00%
2010	\$29.69	\$16.98	\$1.87	-\$0.53
2020	\$32.90	\$19.33	\$2.54	-\$0.37
2030	\$36.16	\$21.78	\$3.31	-\$0.13
2040	\$39.53	\$24.36	\$4.21	\$0.19
2050	\$42.98	\$27.06	\$5.25	\$0.63

Energy Consumption and Standards of Living



Questions?

Nick Loris

Nick.Loris@heritage.org

The Heritage Foundation

June 6, 2019

