<u>EINVENTING</u> FIRE

Blueprint to the new energy era

Business can become more competitive, profitable, and resilient by leading the transformation from fossil fuel to efficiency and renewables. This transition will build a stronger economy, a more secure nation, and a healthier environment.







more than any country but China and the U.S.



- Ultralight low-drag autos
- Electrified autos
- Productive vehicle use
- Superefficient trucks and planes
- Advanced biofuels needing no cropland
- Revenue-neutral feebates

technologies Easy-to-use, IT-based controls

Wide adoption of energy-efficient

- Integrative design Next-generation codes and
- equipment standards Easy-to-access, low-cost financing
- Valuing non-energy benefits

Wide adoption of energy-efficient technologies

Integrative design

fuels.

- Thorough use of cogeneration
- Fuel-switching
- Dematerialization and closed material cycles
- Revolutions in biomimicry & additive manufacturing
- Superefficient end use
- Diverse, largely distributed, renewable-dominated supply
- Smart, secure, resilient grid
- Full competition between investment options
- Fast, broad, transparent markets
- Utilities' and customers' incentives aligned

2050

Efficiency and renewables can end our addiction to fossil fuels, create the core industries of the new energy era, generate \$5 trillion in new economic value, and enhance resilience and security.



HYDRO



HYDROGEN



NATURAL **NON-CROPLAND BIOFUELS**



GAS



WIND, SOLAR, AND **OTHER RENEWABLES**

SHARE OF U.S. PRIMARY ENERGY CONSUMPTION.



TRANSPORTATION

\$3.8 trillion

not spent on oil will be pumped into the economy. Autos will reach an average of 125-240

mpg-equivalent.



BUILDINGS*

The average square foot would use 1/2 to 3/4 less energy than today and save **SO.7** trillion net.



INDUSTRY*

Industry will have greater production, use 9–13[%] less energy, and save **\$0.5** trillion net.



ELECTRICITY

Needing no oil, coal, or nuclear power, at least of our electricity will come reliably from renewable energy.

WHAT WE GET

ION-CROPLAND BIOFUELS



NOTES & SOURCES

If the hydrogen shown is all reformed from natural gas, it will come half from gas and half from steam.

RMI analysis detailed in Reinventing Fire (Chelsea Green) October 2011 and

Learn more at rmi.org

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