













Tennessee Oil and Gas Association Annual Meeting

"Impacts of the Green New Deal & the Need for Honest Energy Conversations"

May 14, 2019



Consumer Energy Alliance was formed in 2006 on the premise that it would **focus on improving the public's understanding of energy**.

CEA is now a leading advocacy organization for energy education and sound energy policies by talked to communities here and across the nation.

550,000+ Individual U.S. Members

Broad membership of farmers, manufacturers, labor, transportation, plastics, local chambers, small businesses, families

280+

Affiliate Members

65% are consumers

CEA Board includes:
Virginia Manufacturing Assoc.
Caterpillar, Nucor Steel
Wortham Insurance
Airlines 4 America
National Assoc. of
Convenience Stores

200+

Campaigns

CEA has managed over 200 local, state and national campaigns in the past 12 years.

Chapters National & Local

National Brand with 8
Regional Chapters
CEA Southeast
CEA Midwest
CEA Mid-Atlantic
CEA-Rockies
CEA-Northeast
CEA-AK, CEA-FL, CEA-TX





What We Do

Develop & Manage advocacy campaigns to move public opinion and elected officials and fight for sensible, realistic energy policies. In the past 12 years, **CEA** has managed almost 200 local, state and national campaigns. CEA remains responsive to the requests of our member companies, who inform our actions based on their direction.

CEA's efforts are designed to:

- Change public opinion regarding energy development in key states;
- Work outside of Washington, DC and the state capitals;
- Create broad-based (economy-wide) organizational support (e.g. represent the entire US economy);
- Develop strong communications strategies; and
- Think longer-term and beyond just one news cycle.





Campaigns & Messaging

CAMPAIGNS:











MESSAGING PILLARS:

- CEA represents **families and small businesses**
- Energy is a **non-partisan** issue
- The **environment is vitally important** and we must continue to see progress
- CEA and its members strongly support sensible, realistic energy solutions





CEA Events & Energy Day

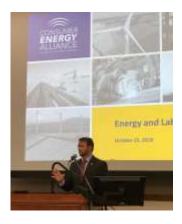
EVENTS: Over 70 in 2018 & 25 so far in 2019



Future of Electricity Forum Keynote The Honorable Rick Perry



NM for Affordable Energy Panel



Energy and Labor Forum 2018 Congressman Dan Crenshaw

ENERGY DAY: 9th Annual Festival in 2019



35,000+ attendees Houston, Denver & More to Come



Since 2008, over \$140,000 in financial rewards to students



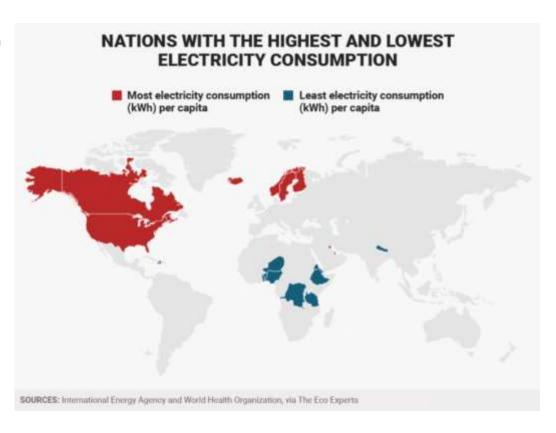
Over 180 exhibitors & community partners





Looking towards the future

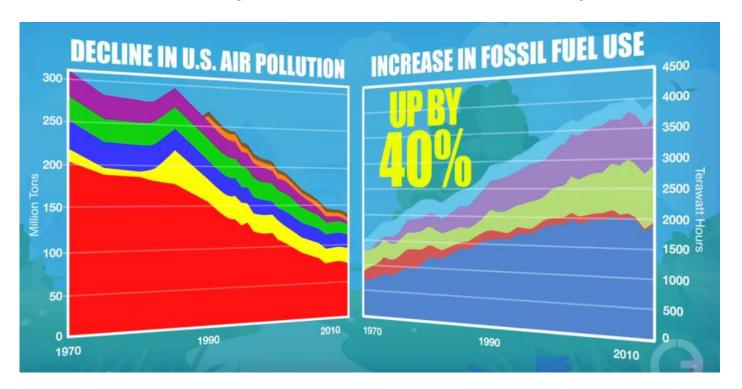
- UN estimates that even by 2030 there will be roughly 800 million people who won't have electricity
- 2.4 billion cooking with "traditional biomass" (i.e., wood, sticks, dung)
- 1.6 billion people have no access to electricity whatsoever.
- In many places throughout the world, electricity only occurs for a few hours a day, even in cities of 10 million people.





CLEANER, HEALTHIER ENVIRONMENTS

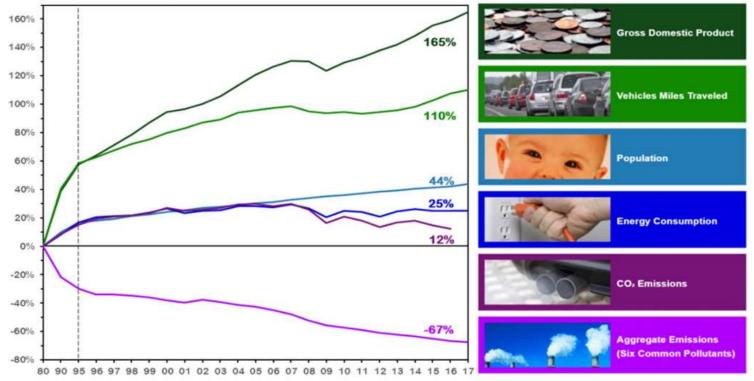
Although U.S. fossil fuel use has increased by 40% since the 1970's, U.S. air pollution decreased by almost 50% in the same time period.



CLEANER, HEALTHIER ENVIRONMENTS

Nationally, concentrations of air pollutants have dropped significantly since 1990. During this same period, the U.S. economy continued to grow, Americans drove more. miles and population and energy use increased.

Comparison of Growth Areas and Emissions, 1980-2017

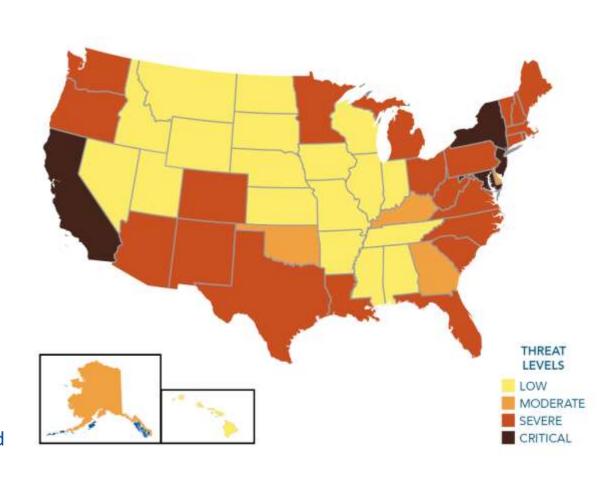




Targeting Anti-Energy Efforts

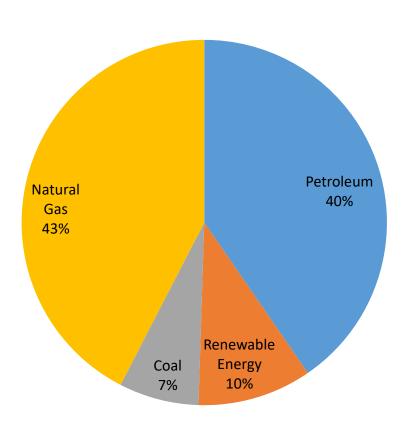
Anti-energy efforts are on the rise in many states across the country, making the need for pro-energy messaging and advocacy more important than ever. The following anti-energy tactics are present to varying degrees in the heat map on the right:

- \$ more than \$2.5M/year
- Multiple targeted Local/Regional Campaigns
- Targeted, aggressive efforts designed to intimidate local/state politicians and public
- Coordinated media efforts/messaging
- Increasingly aggressive Doxxing and personal attacks on Energy Companies



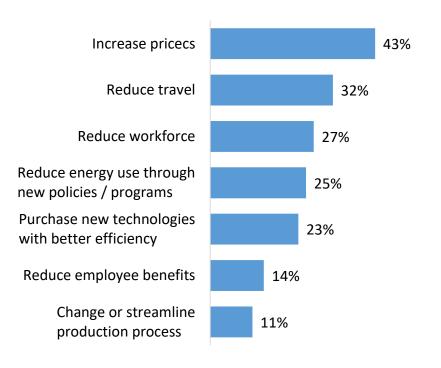


Industrial Fuel Consumption



Data Source: U.S. Energy Information Administration

In what ways have you coped with rising and/or volatile energy costs?

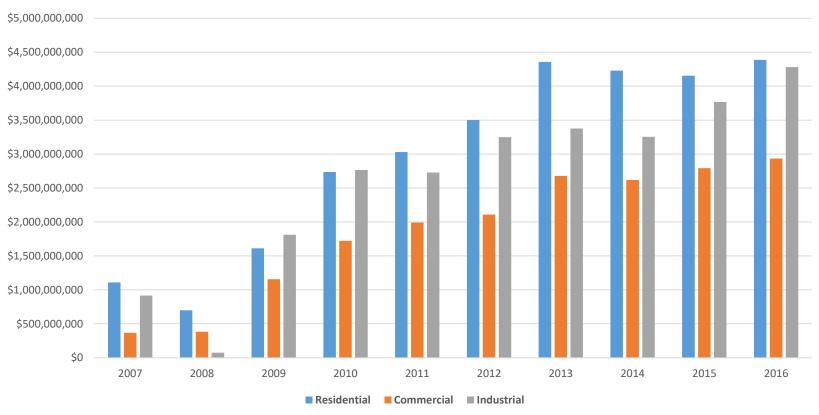


Data Source: NSBA Energy Survey





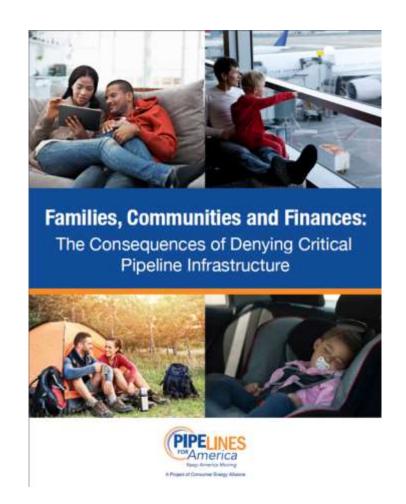
Consumer Savings Per Year







- Examined the implications of activist policy demands and the impact on supply by 2030 from:
 - Failure to permit and construct new pipeline infrastructure
 - Inability to obtain necessary permits for electricity generation







- Provide "millions of good, high-wage jobs"
- Unprecedented prosperity
- Counteract "systemic injustices"
- Achieve net-zero greenhouse gas emissions through a fair and just transition for all communities and workers
- Invest in the infrastructure and industry of the United States to sustainably meet the challenges of the 21st century
- "Promote justice and equity by stopping current, preventing future, and repairing historic oppression of indigenous peoples, communities of color, migrant communities, deindustrialized communities, depopulated rural communities, the poor, low-income workers, women, the elderly, the unhoused, people with disabilities, and youth (referred to in this resolution as "frontline and vulnerable communities")
- Eliminate pollution and GHGs as much as technologically feasible





- Universal access to clean water
- All infrastructure bills must include climate considerations
- 100% renewable energy to meet domestic needs
- Upgrading all existing buildings in the United States and building new buildings
- Sustainable food systems and farming
- Zero emissions vehicles, and mass transportation infrastructure and systems
- De-carbonizing the electric grid
- Guaranteeing jobs w/ "family-sustaining wage, adequate family and medical leave, paid vacations, and retirement security"
- Direct "investments" for "frontline and vulnerable communities, and deindustrialized communities, that may otherwise struggle with the transition away from greenhouse gas intensive industries"
- Guaranteed health care and "obtaining the free, prior, and informed consent of indigenous peoples for all decisions that affect indigenous peoples and their traditional territories"





- Astronomical costs to society \$94 trillion (American Action Forum estimates; former CBO Director)
 - Even if estimates are off 50%, it's still more than **twice** as expensive as our entire national debt
 - Our entire economy is roughly \$16 trillion in value; national debt is \$21 trillion
- Energy Cost/Household
 - "Low-Carbon" Electric Grid and Electricity = \$5.4 trillion/\$39,000 per household
 - Net Zero Emissions Transportation System = \$1.3-\$2.7
 trillion/\$9,000-\$20,00 per household
 - Building Retrofits = \$1.6-\$4.2 trillion/\$4,000-\$12,000 per household
- Total (just 3 energy goals) = \$12.3 trillion
- Avg power bill increase from \$111/month (2017) to \$295



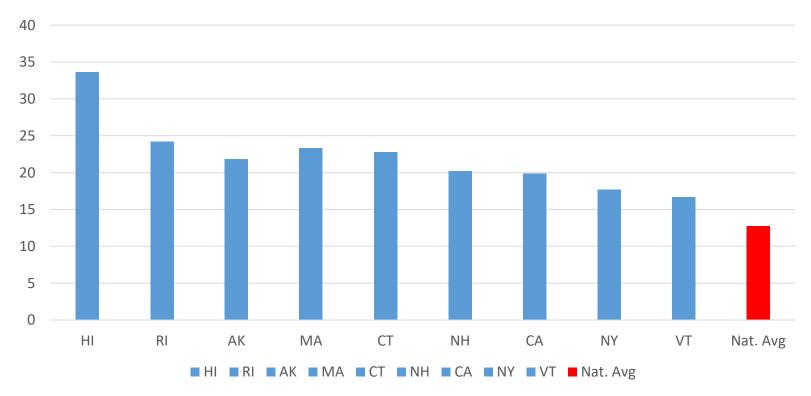


- "Low-Carbon" Electric Grid and Electricity
 - **2,547,194** households (US Census)
 - \$39,000/household = **\$9.93 billion**
- Housing Retrofits
 - 2,958,706 million housing units (US Census)
 - \$4,000-\$12,000 GND retrofit =**\$1.18-\$3.55 billion just in housing** expenses
 - Doesn't include industrial/commercial impacts
- High-Speed Rail/Net Zero Emissions Transportation System
 - **2,547,194** households (US Census)
 - \$9,000-\$20,000 = **\$2.29** billion **\$5.09** billion
- Total for only 3 energy-related directives = \$18.57 billion





March 2019 EIA Top 10 Residential Rates







- State efforts this session: Colorado, New Mexico, New York, Illinois, Minnesota, Washington
- Nearly all legislative proposals have a phase out of fossil fuel power generation by 2040/50 with varying targets for 2030, etc.
- NY would also focus on removing fossil fuels from transportation by 2040
- Wallace Fund donated \$1 million to Sunrise Movement for GND activism (Reuters, 5/7/2019)
- Quickly becoming a 2020 issue for candidates and key part of primary elections



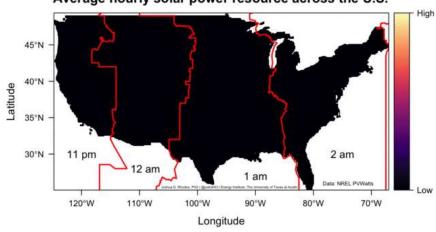


- Grid is balanced on second-by-second actions
- Requires instantaneous supply to meet consumer/industrial demands
- Inherent intermittency challenges w/ renewables
- Baseload capacity vital for reliability; gas turbines provide rapid power to boost renewables & "governor response" provides transition bridge to avoid disruptions
- Battery storage promise, but on-going challenges: expense, engineering, storage limits
- Quick case study: Recent Polar Vortex (Woods MacKenzie)
 - Current US Renewable generation is 7.6%; 18 hour stretches in polar vortex when no renewables were providing power in the Midwest
 - Total battery storage in the US is 11 Gigawatts
 - To meet energy demand w/ 100% renewable would require 278 Gigawatts of battery storage (over twice the projected estimate of future storage in 2040)

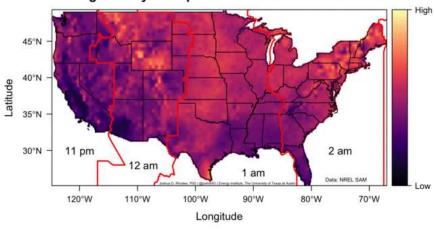


INTERMITTENCY & BATTERY STORAGE LIMITATIONS





Average hourly wind power resource across the U.S.





- Natural gas, petroleum and pipeline infrastructure are ESSENTIAL to families, seniors, and households struggling to make ends meet.
- Protecting the environment and providing realistic energy solutions are not mutually exclusive we can and must do both.
- The ambitious renewable energy goals and objectives set out by activists and states are never going to be realized without natural gas need natural gas.
- Consumers and families need realistic answers to keep their energy bills affordable, not platitudes.
- We stand ready to work with you in the Tennessee oil and gas community to provide responsible solutions to meet our energy needs and support infrastructure projects.





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