

# POST-COP21: ALIGNING US BUSINESS AND CLIMATE

The COP21 climate summit in Paris instilled a sense of urgency among world leaders and forged new goals for both climate and energy. A hand-picked group of leading experts across the climate and energy spectrum engaged in a [virtual dialogue](#) to evaluate the outcomes of COP21, and determine its implications for the future of global climate and industry in the U.S.

23 PARTICIPANTS | 118 POSTS



## PARTICIPANTS

This engagement brought together the following experts:

- Ripudaman Malhotra**  
Co-author, A Cubic Mile of Oil  
Independent Consultant  
Facilitator
- Andrew Winston**  
Author, The Big Pivot &  
Green to Gold  
Adviser/Speaker
- Eric Corey Freed,**  
Vice President, Global Outreach  
International Living Future Institute
- Bill Baue**  
Corporate Sustainability  
Architect  
Co-Facilitator
- Andy Howard**  
Founder  
Didas Research
- Garratt Hasenstab**  
Chief Executive Officer  
The Mountain Life Companies
- Rene De Coning**  
Global Strategic Insight Lead  
Oil & Gas Industry  
Co-Facilitator
- Bardi Ugo**  
Professor, Physical Chemistry  
University of Florence
- Guillermo Pastor**  
Senior Independent Consultant  
Oil & Gas Industry
- Raj Thamotheram**  
Chief Executive Officer  
Preventable Surprises  
Co-Facilitator
- Billy Grayson**  
Director of Sustainability  
Liberty Property Trust
- Guy McPherson**  
Professor Emeritus  
University of Arizona
- Alison Wise**  
Clean Tech & Innovation  
Executive/Strategist
- Charles Secrett**  
Sustainability Advisor, Analyst  
& Campaigner
- Hunter Lovins**  
President  
Natural Capitalism Solutions
- James Bairry**  
Pro Bono Clean Energy  
Independent Consultant
- Michael Dutschke**  
Chairman  
Global Conservation Standard
- Tabaré Arroyo Currás**  
Global Advisor on Energy  
Economics  
World Wildlife Foundation  
International
- Jason Kliwinski**  
Founder & CEO  
The Green Building Center
- Robert Bryce**  
Senior Fellow  
Manhattan Institute for  
Policy Research
- Thomas O. Murtha**  
Managing Director  
Source Capital Group
- Julie Gorte**  
SVP, Sustainable Investing  
Pax World
- Sam DeLay**  
Senior Program Manager,  
Energy Utilization  
Tennessee Valley Authority
- Lily Donge**  
Principal, Business  
Renewables Center  
Rocky Mountain Institute
- Sanford Lewis**  
Strategic Counsel, Corporate  
Accountability  
Sanford Lewis, Attorney
- Mark Trexler**  
Climate Risk Knowledge Broker  
The Climatographers
- Ski Milburn**  
Managing Member & CEO  
VAIREX Air Systems

## EXECUTIVE SUMMARY

- Responses to the [COP21 agreement](#) ranged from glowing to skeptical, but ultimately highlighted the gap between GHG reduction needs and pledges made.
- There is no silver bullet to achieve the goals, but rather a "cocktail" of solutions.
- The private sector may be best positioned to drive these solutions and the business case is compelling.
- Because accountability is unclear and pledges are voluntary, however, fulfillment will take courageous acts of leadership at all levels.

### 1

#### KEY FINDINGS

Responses to the COP21 agreement ranged from glowing to skeptical, but ultimately highlighted the gap between GHG reduction needs and pledges made.

**The Glowing**  
"COP21 is a magnificent achievement. It is more than we had any right to expect that we could pull off."  
- Hunter Lovins, President, Natural Capitalism Solutions  
"The significance of the signing of the agreement can't be understated. The signing by nearly 200 nations shows that the debate over climate change is over."  
- Eric Corey Freed, VP, International Living Future Institute

**The Skeptical**  
"It's a start, but we're running out of time for starts."  
- Ski Milburn, Managing Member & CEO at VAIREX air systems  
"The Paris Agreement is full of ambition. It also contains ambiguities and oratory calls for action, as opposed to a concrete, enforceable path forward to limiting climate change to 2C, much less 1.5C."  
- Mark Trexler, Climate Risk Knowledge Broker, The Climatographers

#### THE GAP

While the COP21 Agreement set a goal of limiting global temps to 2°C above the preindustrialization level with a stretch goal of 1.5°C, all the pledges made at the conference would amount to no fewer than 2.7°C warming.

The target calls for reducing GHG emissions by [1,300 Gt CO2 by 2050](#); Pledged amounts through 2025 add up to roughly 120 Gt, or less than 10%. Sure, we can expect more pledges to be made in subsequent years, but this is where we stand.

### 2

#### KEY FINDINGS

There is no silver bullet to achieve the goals, but rather a "cocktail" of solutions.

"...carbon goals could be achievable but it will be due to a combination of shutting coal fired plants, energy efficiency, demand response, and potentially leveraged electrification with consumer technology."  
- Sam DeLay, Tennessee Valley Authority

"The requisite scale for change is [cubic mile of oil equivalent](#)"  
- Ripudaman Malhotra, Co-Author: Cubic Mile of Oil

#### Renewables

"Renewable deployment will continue at a breakneck pace and oil isn't going anywhere anytime soon."  
- Billy Grayson, Director of Sustainability, Liberty Property Trust

#### Nuclear

"...the US needs to enact policies that will incubate companies that are designing safer cheaper reactors."  
- Robert Bryce, Senior Fellow, Manhattan Institute for Policy Research

#### Energy Storage

"Energy storage is poised for a breakthrough. Several competing technologies are pushing storage to capacities we never thought possible."  
- Eric Corey Freed, VP, International Living Future Institute

#### Biogas and Biofuels

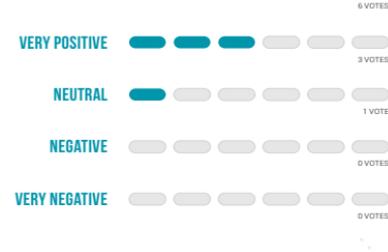
"Biogas and biofuels are an untapped and small market that is set to explode, given the need for decentralized farming and agriculture, and the need to find ways to deal with the waste."  
- Eric Corey Freed, VP Global Outreach at International Living Future Institute

### 3

#### KEY FINDINGS

The private sector is best positioned to drive change towards this goal and the business case is compelling.

Overall, the financial impacts on the US economy from COP21 commitments will be:



"There is reason to expect that the role of the investment community, at least in the US, is likely to become more rigorous and impactful post COP21."  
- Sanford Lewis, Environmental Attorney

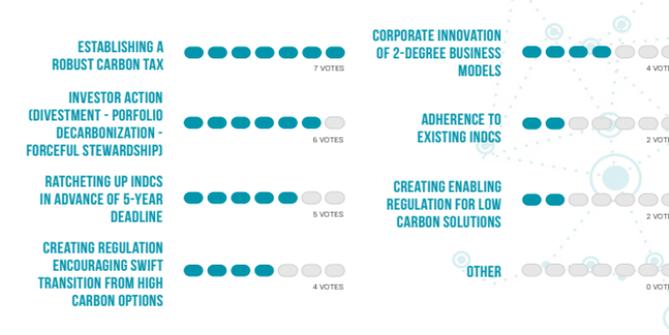
"Windmills will get better, solar will get better, batteries will get better, as will fuel cells, and hydro, and geothermal and even nuclear. And [there] will be plenty of money to be made on those improvements."  
- Ski Milburn, Managing Member & CEO at VAIREX air systems

### 4

#### KEY FINDINGS

Because responsibility is unclear and pledges are voluntary, fulfillment will take courageous acts of leadership at all levels.

Which 3 technologies / solutions hold the greatest promise for mitigating / adapting to climate change and delivering on COP21 commitments (and beyond)?



"If we expect real change within our time, the leaders of our nation must 'put their money where their mouth is' and stand together to serve as a beacon of sustainability for the world to emulate, and why not, there is endless profit to be made in this pursuit of a sustainable future."  
- Garratt Hasenstab, CEO, The Mountain Life Companies

"The announcement by Bill Gates at the start of COP21 for increased R&D investments by private and government sectors is significant, particularly for nascent technologies struggling to cross the 'valley of death' and transition to commercialization."  
- Julie Gorte, SVP, Sustainable Investing at Pax World

## CONCLUSION

As this conversation and the COP21 summit reinforced, the technological capabilities, business case, and perhaps even political will are aligned to realize a <2°C global temperature rise.

Ultimately, realization of these goals hinge on a change of heart in public sentiment. This, in turn, must be matched by a change in behavior at every level. What we need is nothing short of a social revolution.

"...climate change is still a partisan issue, used to fuel disruption and confusion among the masses, resulting in diminished public acceptance and slowed momentum toward full-fledged positive policy change. Could this all just come down to social revolution? What would bring forth the significant change in which energy production and GHG emissions could be seen through the lenses of economic justice and social benefit as opposed to the current paradigm? How can we drive this change?"  
- Garratt Hasenstab, CEO at The Mountain Life Companies

