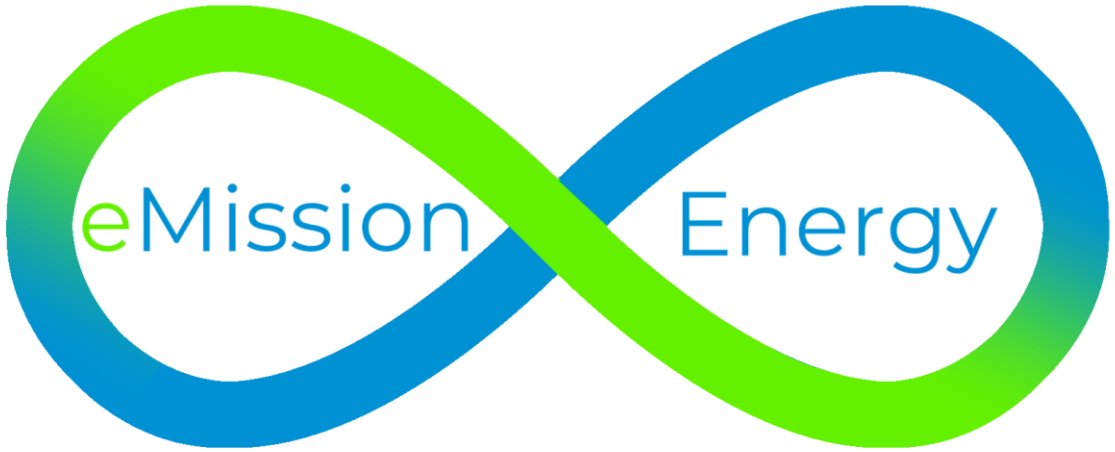



# The future of Net Zero

2022

# The Net Zero Pledge

- Hundreds of companies are making “Net Zero” pledges by some date in the future

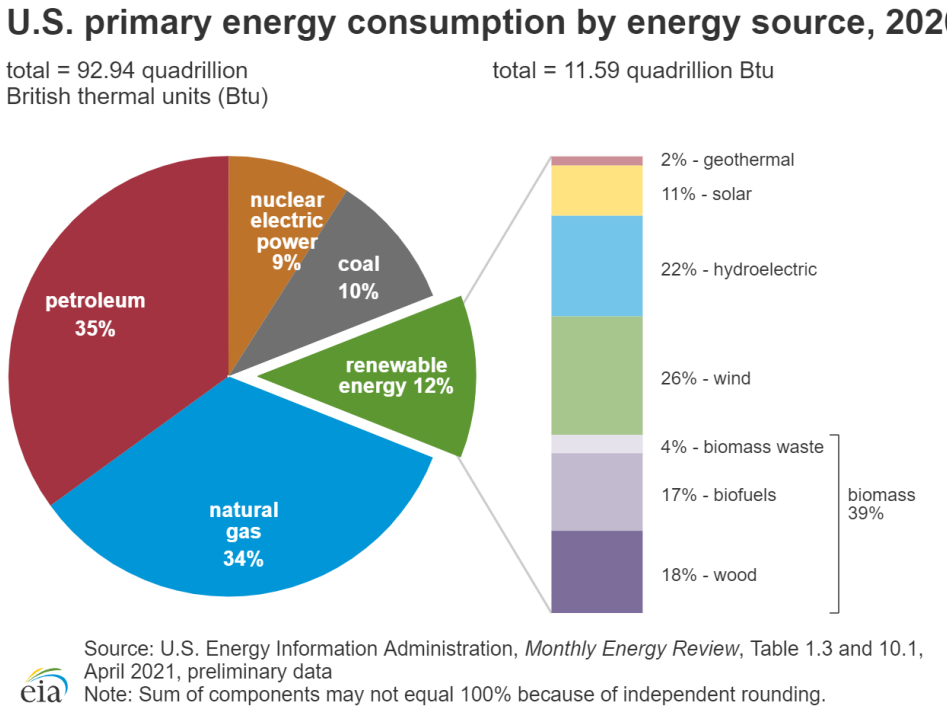
- What that means
  - They will do everything they can to drive their inherent Carbon Footprint down
  - It is almost impossible to drive a Carbon Footprint to “Zero”

- They will have to buy Carbon Offsets to become “Net Zero”

**Current Supply of Carbon Offsets is Limited**

# Carbon Footprint

- What drives a corporate Carbon Footprint?
  - Electricity Usage for office buildings, computers, etc
  - Travel
  - Power to run equipment that creates goods and services
- Wind and Solar make up ~5% of US Energy supply and ~11% of electricity supply




**Most Energy needed Power the economy creates a Carbon footprint**

# Carbon offsets

A *carbon offset credit* is a transferrable instrument certified by governments or independent certification bodies to represent an emission reduction of one metric tonne of $CO_2$, or an equivalent amount of other GHGs.

The purchaser of an offset credit can “retire” it to claim the underlying reduction towards their own GHG reduction goals.

The key concept is that offset credits are used to *convey* a net climate benefit from one entity to another. **The purchaser of the credit in essence helps fund a carbon offset project.**

From a climate change perspective, the effects are the same if an organization: (a) ceases an emission-causing activity; or (b) enables an equivalent emission-reducing activity somewhere else in the world. Carbon offsets are intended to make it easier and more cost-effective for organizations to pursue the second option.

Carbon Offsets provide an exchange of Emissions activity

# Carbon offset markets

## Existing Carbon Offset Market

- Project focus is typically on CO2 Removal or Renewal Energy Projects
- In some cases, calculations include estimates of future CO2 removal
- Carbon credit market estimated at $750MM for 2021

- Accounting and project verification is difficult
- No standardization of projects and carbon offsets
- Market is illiquid, demand is choppy
- Carbon credits are difficult to monetize

- A very small % of potential market participants are involved

The Carbon Offset Market needs change to Scale

# Carbon Offset Markets

- 6 Keys to Scaling the Carbon Offset Market
  - Creating shared principles for defining and verifying carbon credits
  - Developing contracts with standardized terms
  - Establishing trading and post-trade infrastructure
  - Creating consensus about the proper use of carbon credits
  - Installing mechanisms to safeguard the market's integrity
  - Transmitting clear signals of demand

Source: McKinsey Consulting: "A blueprint for scaling voluntary carbon markets to meet the climate challenge", January 29, 2021

- With the right eco-system, estimates predict the market demand for carbon offsets could grow 15x over the next 10 years

A Standardized, Expanded Marketplace needs to exist

# Carbon Offset expansion

| | Current Carbon Offset Market | | Expansion of Eligible Projects | |
|---|---|---|---|---|
| **Project Type** | $CO_2$ Removal | Renewable Energy | Energy Efficiency | Traditional Energy Production |
| **Goal** | Remove Existing $CO_2$ in the atmosphere | Replace Carbon derived energy sources | Reduce Electricity demand for the same functionality / change to cleaner energy source | Reduce emission from Traditional Sources |
| **Examples** | Re-Forestation<br>Algae Farms<br>$CO_2$ underground storage | Wind / Solar | Air Conditioning efficiency<br>Electric Vehicles<br>LED Lighting | Emissions reductions<br>Fuel Optimization |

Traditional Energy creates 75% of global emissions and has the largest opportunities to impact

A pound of $CO_2$ reduction is a pound, no matter the source

# Carbon offset markets

## Future Carbon Offset Market

1. **Expand project types available**
   - CO2 removal
   - Renewable Energy
   - Energy Efficiency
   - Traditional Energy Production

2. **Strict Project Verification**
   - Must be audited and verifiable by a qualified third party
   - Must improve current emissions profile

3. **Significantly expanded market participation**
   - Companies committed to using carbon offsets to meet NetZero pledges
   - Governments and non-profits interested in reducing global emissions
   - Individuals interested in offsetting their personal carbon footprint

Creating industrial scale demand signals for project developers

# The Bridge to Net Zero

- The World will always need abundant energy
- Emission reductions takes funding, R&D and urgency
- Regulatory solutions are slow to take effect, often in-effective, and always adversarial

- Expanding and Scaling the Carbon Offset market should be a primary focus
- Use the carbon offset markets to create incentive mechanisms for industry to provide cleaner energy and to use energy more effectively

- Align industry and the Environment

A capital markets approach to Emissions