a4ch.org
ASSOCIATION FOR CLIMATE HEALTH
Sharing ideas and information to fight climate change

Journal of the Association for Climate Health

Fall 2020

Letter from the Managing Director

Hello, friends and supporters of climate health. We continue to live in interesting times. The election is over but COVID is not. Things will hopefully begin returning to some sort of normal – and yet what kind of normal can we expect? Like so many, we have experienced a slowdown in our activities, motivation and energy. So we decided to use this week to take stock, see where we are, and reaffirm our commitments.

We started by asking a few basic questions and seeing what answers emerged.

Why the Association for Climate Health?

Climate change continues to be the most important existential crisis of our time, threatening 100% of the world's human population and most other species as well.

Even under a more climate-friendly administration, even with increasing evidence that the time to act is NOW, interest in confronting climate change continues to lag behind 10 or more other issues for the attention of most Americans. The crisis continues to need our support, encouragement and resources to bring solutions forward and promote their adoption.

Without such help, human life on this planet may not survive. Or, it may survive but under much more threatening, difficult and precarious conditions than we have known through most of recorded history.

With our help, there is still hope that we can turn things around. So let us continue to aim for a good and sustainable life on this planet!

Our vision: We are working towards a world where children in Los Angeles, Mumbai and Beijing can see the sky. Where we can live without beaches and whole islands disappearing under our feet and our most fertile soils washing away in wild storms and hurricanes. A world where industry has learned to incorporate nature instead of fighting it, and we constantly replenish the building blocks of a good life for the generations coming after us.

What resources do we have to work with?

- The vision – a planet which sustains life as we know it, and a determination to aim our efforts at getting it to that level of sustainability
- Nancy's time, energy and thinking power
- input from members of the board, members of a4ch and occasional others
- A small band of dedicated volunteers

- A great website
- A substantial bank of idea, strategies and resources which we've put together and update regularly
- Quality publications featuring research and white papers on climate issues and solutions
- A small but solid track record of testimony in front of public decision-making bodies
- Nonprofit status
- A substantial number of unique visitors to our website who make use of the resources we provide
- A small but growing number of members and supporters

What do we want to accomplish in the next 12 months?

- Increase outreach and awareness of our existence and resources
- Increase membership
- Increase readership
- Increase donations
- Increase engagement with members
- Continue to find and publicize climate healthy strategies and solutions
- Continue to create quality publications and white papers for people looking for healthy climate strategies and solutions
- Continue to testify where we are aware of a forum for considering climate positive solutions
- Continue to participate in and create forums for discussion and promotion of climate positive strategies and solutions
- Continue to find allies and work with them to increase our reach and effectiveness in pursuing our mission

How you can help

- Let us know which of our resources, articles, strategies have been useful, interesting, helpful, and what you've been forwarding to others
- Share climate success stories, interesting articles and other climate-positive ideas
- Make use of our climate-friendly strategies and solutions at home and at work
- Tell others about a4ch, our work, our website and resources
- Connect us with any state, local or federal officials who might benefit from our resources
- Donate what you can – even a small amount – to help pay for our website and other expenses

Read about our work over the past few months

In addition to our ongoing work finding and publicizing innovative climate-positive ideas, we have been active with projects in several areas:

- Ongoing work encouraging renewable energy sources:
    - Continuing meetings with the Solar Municipal Brain Trust
    - Article for *Vista Today* on solar projects for commercial properties (stores, doctor's offices, etc) https://montco.today/2020/09/put-a-little-sunshine-on-your-business-invest-in-solar-energy/
- Ongoing work on reducing greenhouse gases from surgical procedures and healthcare:
    - Met with Pennsylvania's Department of Environmental Protection regarding the climate threat of waste anesthesia gas
    - Discussions with Penn State's Sustainability Institute and Pennsylvania Office of Rural Health on Waste Anesthesia Gas
    - Reached out to all 50 states' Offices of Rural Health to offer educational materials on the threat of waste anesthesia gas used in healthcare facilities and hospitals
- Testimony in front of governmental agencies - Submitted comments to the State of Washington on an Environmental Impact Statement for a natural gas to methanol plant and storage facilities on 90 acres at the Port of Kalama
- Benefitted from the work of several volunteers, especially helping research contact information for outreach on our special projects

Enjoy some of our most popular Idea Forum posts:

Agriculture:

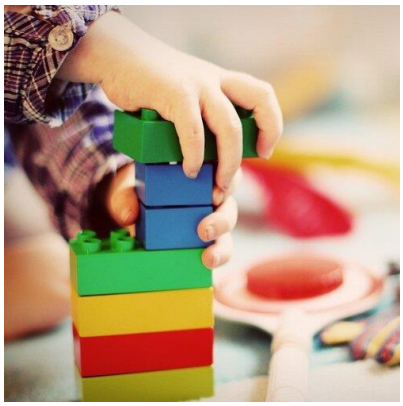
Coming soon – insect protein in your granola bar You've heard of vertical farms, salmon farms and regenerative agriculture? Agriculture's newest innovation is the insect protein facility, which grows more grams of protein per acre and needs less water, energy and other inputs to feed the crowded world of the future. Ÿnsect, in Amiens, France, is building the world's largest insect protein production line to turn crop waste into edible mealworms for use as livestock feed, pet food and – yes – snacks and food for people. Insect protein for human consumption is a tiny but growing market due to the high-quality, low fat content of insect-based proteins. First harvest is expected in 2022, and with waste converted back to fertilizer, the entire system should be carbon-negative. *Fast Company's* Adele Peters reports at https://www.fastcompany.com/90560222/the-worlds-largest-insect-farm-will-grow-hundreds-of-millions-of-beetles-for-

eating?partner=rss&utm_campaign=rss+fastcompany&utm_content=rss&utm_medium=feed&utm_source=rss

Climate Justice:

West Virginia nonprofit nurtures sustainable businesses to replace the monolithic – yet dying – coal industry Coalfield Development has been nurturing or creating small businesses to spur growth and social responsibility at the same time. Since 2010 they have helped stabilize and diversify the economy, nurturing 50 different businesses, subsidizing career training, jobs, music and arts. Many of their affiliated businesses move into formerly dilapidated houses which have been rehabbed and upgraded with solar panels. Moving to a sustainable economy requires a form of climate justice – investing in communities which once relied on dirty fuel production; Coalfield Development is a model of how this can be accomplished. *Grist's* Adrienne Day reports https://grist.org/fix/in-appalachia-hes-helping-former-miners-dig-into-new-opportunities/

Climate Research:

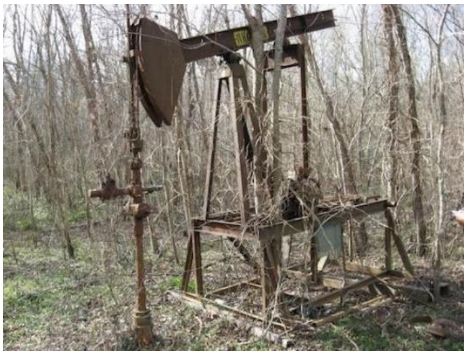


New technologies for thermal storage of power and excess heat may be economical soon:

- **Australian technology can be developed to store power as heat for a week before using it to generate electricity** The idea of Miscibility Gap Alloy (MGA) Blocks is to create stackable blocks of a variety of metals. These can be heated up from solar or wind sources, storing the power until needed. When needed, the heat can be converted back to energy by creating steam to run turbines that make electricity. This storage technique will cost less than current lithium ion batteries, which only store power for a few hours. One likely location – placing them in decommissioned coal-fired plants where they already have steam turbines and interconnections to the power grid. Reported in *The Conversation* at https://theconversation.com/aussie-invention-could-save-old-coal-stations-by-running-them-on-zero-emissions-lego-blocks-144864
- **Nanotechnology blocks of waste steel can store excess heat to transport for heating buildings** Newly developed efficient heat storage blocks can hold heat up to 1300

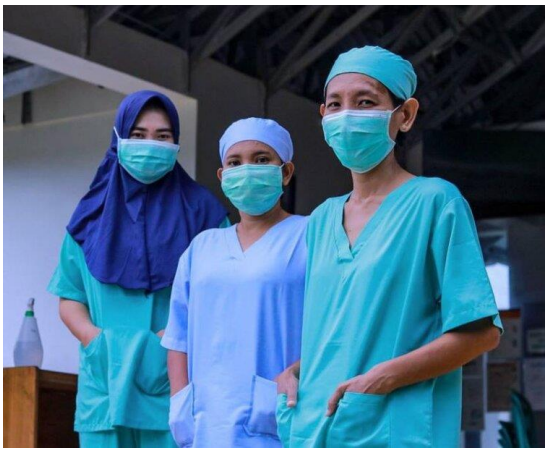
degrees, get trucked to other locations and plugged in for heat. Similar technologies using molten salt or concrete can only hold heat to 560 degrees, leaving the rest to be lost to the atmosphere. The German startup Kraftblock is commercializing the idea, testing the technology with steel and glass manufacturers. Reported by *Sifted.eu*'s Maija Palmer at https://sifted.eu/articles/kraftblock-thermal-storage/

Climate Strategy:



2 million abandoned oil and gas wells are leaking methane into the atmosphere – why can't a bipartisan jobs program fix this? Several red states have used COVID stimulus money to employ out-of-work oil and gas workers to cap abandoned wells. Thirty one oil and gas producing states support it; environmentalists love the idea, so what is stopping it? Probably election year politics among other things. Yet such a program could create one hundred thousand skilled jobs and do the climate-equivalent of taking two million cars off the road. In theory the industry itself should pay for this, and many states require operators to set aside money for this purpose. But the funds are a small fraction of the actual cost and so many wells go uncapped at the end of their economic lives. The result is a completely unnecessary annual insult to the atmosphere of millions of metric tons of methane. Solving this would be an easy, win-win solution. Silvio Marcacci writes in *Forbes* forbes.com/sites/energyinnovation/2020/09/21/plugging-abandoned-wells-the-green-new-deal-jobs-plan-republicans-and-democrats-love/#68e2aef22e10

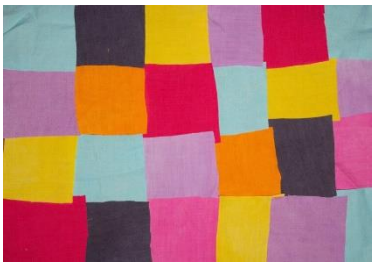
Creating Behavior Change:



Low-cost medical clinics reduce illegal logging in rain forest As much as 70% of illegal logging may be done by people desperate to pay for medicine or healthcare. When nonprofit Health in Harmony set up a medical clinic in Borneo, Indonesia, they offered discounts and barter payments along with two programs to help locals economically: training them in sustainable agriculture methods and offering to buy back their chainsaws. In addition to better health, they found that illegal logging in the area was greatly reduced. And the more villagers used the clinic, the greater the drop-off in deforestation. The lesson? Include locals and their needs in your climate programs! The UN recently recognized their work with its UN Global

Climate Action Award. Michael Taylor of *Thomson Reuters Foundation News* reports at https://news.trust.org/item/20201026180624-gg6dy/

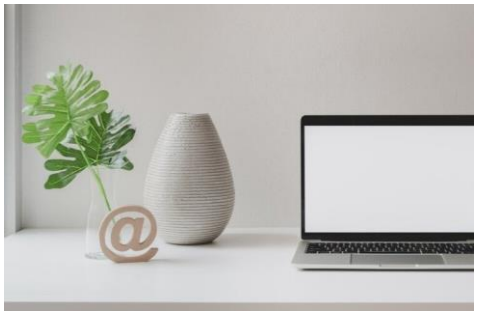
Individuals:



Startup Fabscrap turns the fashion industry's fabric scraps into retail sales, moving blankets and furniture In its four years of operations the company diverted 300 tons of usable fabric from landfills into clothing and useful material. Jessica Schreiber got the idea for the company while working for the NYC Bureau of Recycling and Sustainability. The city didn't want to pursue it so she pitched it to the TV show *Project Runway* and they gave her seed money to get it going. Now that it's functioning well, she is eyeing expansion of the franchise to Los Angeles, London and other fashion centers. *Sierra's* Kathleen Webber reports at **https://www.sierraclub.org/sierra/fabscrap-aims-solve-fashion-industry-s-waste-problem?suppress=true&utm_source=greenlife&utm_medium=email&utm_campaign=newsletter**

Industry:

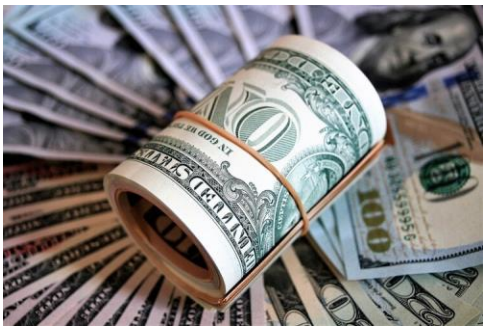
Google and Facebook going carbon-free; other majors follow:



- **Google** announces it will get to 100% carbon-free power for offices and data centers by 2030. How? Probably by investing in renewable energy and energy storage as well as purchasing renewables from other sources. It also states that it has been buying carbon offsets for all its activities since the company's start in 1998. Angely Mercado of *Grist* reports at https://grist.org/energy/google-plans-to-power-your-searches-with-carbon-free-energy-by-2030/
- **Facebook** reports it will be using 100% renewable energy and achieve carbon neutral status this year (2020) for its global operations. It continues to work with companies in its supply chain to help them achieve the same goal within the next 10 years. *NBC News'* Dylan Byers reports at https://www.nbcnews.com/tech/tech-news/facebook-unveils-new-climate-initiative-won-t-change-policy-misinformation-n1240091
- **Walmart pledges zero emissions by 2040** Already powering almost 30% of it's operations with renewables, the company additionally pledged to restore 50 million acres of land and one million square miles of ocean by 2030. It is also reaching out into its supply chain to help vendors eliminate one gigaton of greenhouse gases by 2030.

Forbes' Ariel Cohen reports at https://www.forbes.com/sites/arielcohen/2020/09/30/walmart-pledges-zero-emissions-by-2040/#7acc83483aee

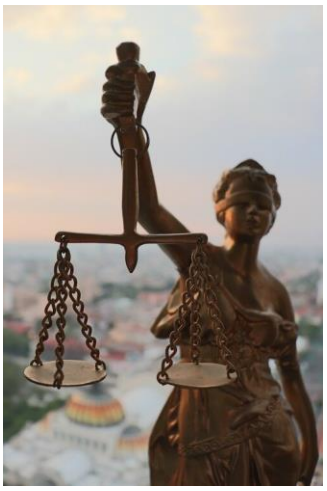
Investors:



Managers of $47 trillion in assets ask 160 major polluters to set climate goals and allow monitoring Their targets are responsible for 80% of the world's greenhouse gas emissions and include the major oil and gas companies plus mining and transportation companies, plus some of the banks which finance their projects. About one third of the companies named have already accepted the Climate Action 100+proposal. Will more agree to submit to these voluntary guidelines? Probably, if this additional step in the growing movement of shareholders to force corporations to do their part in reducing the imminent threat of global warming. *The Guardian's* Adam Morton reports at https://www.theguardian.com/environment/2020/sep/14/investors-worth-us47tn-demand-worlds-biggest-polluters-back-plan-for-net-zero-emissions?CMP=oth_b-aplnews_d-1

Legal:

Young Portuguese activists suing European Union plus 6 other neighboring countries The plaintiffs are four minors and two adults, all affected by devastating forest fires in Portugal in 2017 and by record-breaking heat in 2018. Their case charges countries to prevent discrimination against youths and protect their right to live without anxiety and to be able to safely exercise outside. Brought before the European Court of Human Rights, the case could set standards for many other courts, but will likely take several years for a verdict. Jonathan Watts' reporting is reprinted in *Grist* at https://grist.org/climate/portuguese-youth-are-suing-33-countries-over-the-climate-crisis/



Science and Technology:

Projects to restore seagrass can do even more for climate than planting trees Citing carbon capture at 35x the capacity of rainforests, World Wildlife Fund is planting seeds in underwater seedbeds around the coasts of the UK, following successful programs led by the Virginia Institute of Marine Science in the Chesapeake Bay and now around Europe and Australia. Seagrass meadows are a globally threatened ecosystem, yet they have the capacity to restore climate health along with world fisheries in their role of protecting young fish from predators as they grow to maturity. The UN calls seagrass the "secret weapon in the fight against global heating." Looking for a great program to donate money to, or honor someone in your holiday giving? This might be high on your shopping list. Douglas Broom reports at *World Economic Forum* https://www.weforum.org/agenda/2020/08/seagrass-restoration-carbon-climate-change

State and local:

Cities consider tax plans to pay for climate programs Voters in Berkley CA may approve a small increase in utility taxes to fund programs such as green jobs training, rebates for electric cars and bikes, home insulation and subsidized passes for public transit. Denver may raise sales taxes for their own slate of green measures. Seattle and Portland are taxing large employers to fund climate actions. Some state governments are considering taxes on local oil wells or refineries. More taxes always sound painful, but even worse is the death of the planet as we know it … *Fast Company's* Adele Peters reports at https://www.fastcompany.com/90566250/this-innovative-tax-plan-is-designed-to-help-cities-pay-for-climate-action?partner=rss&utm_campaign=rss+fastcompany&utm_content=rss&utm_medium=feed&utm_source=rss

Utility Companies:

More cross-regional transmission lines needed to make the most of renewables – but are we ready to invest? Solar and wind are the lowest cost power sources, but they function only when the sun or wind conditions permit. To make best use of these sources, electricity needs to be transported for use as it is generated, since there is little long-lasting storage available. This requires careful matching of supply and demand from nearby customers – or transmission lines to send power to additional customers further away. England, Belgium and the Netherlands' electric grids are connected by 3 massive cables running under the English Channel with 4 GW of electric capacity. Three more connections will be operating soon, allowing an additional 3.8 GW to flow between the UK and Norway, Denmark and France. The US has several regional networks for generating and transmitting, but limited long-distance interconnections between them, the most recent major one completed as far back as 1970. As the country moves towards more green power, more interconnecting lines will be needed, and soon. Andrew Blum of *Popular Science* discusses at https://www.popsci.com/story/technology/renewable-energy-transformation/

Reminder:

If you have enjoyed this quarterly newsletter, please do at least one of the following:

- Share some climate success stories, interesting articles and other climate-positive ideas with us or with others
- Make use of our climate-friendly strategies and solutions in your home or work life
- Tell others about a4ch, our work, our website and resources
- Connect us with any state, local or federal officials, school or hospital administrators who might benefit from our resources
- Donate what you can – even a small amount – to help pay for our website and other expenses