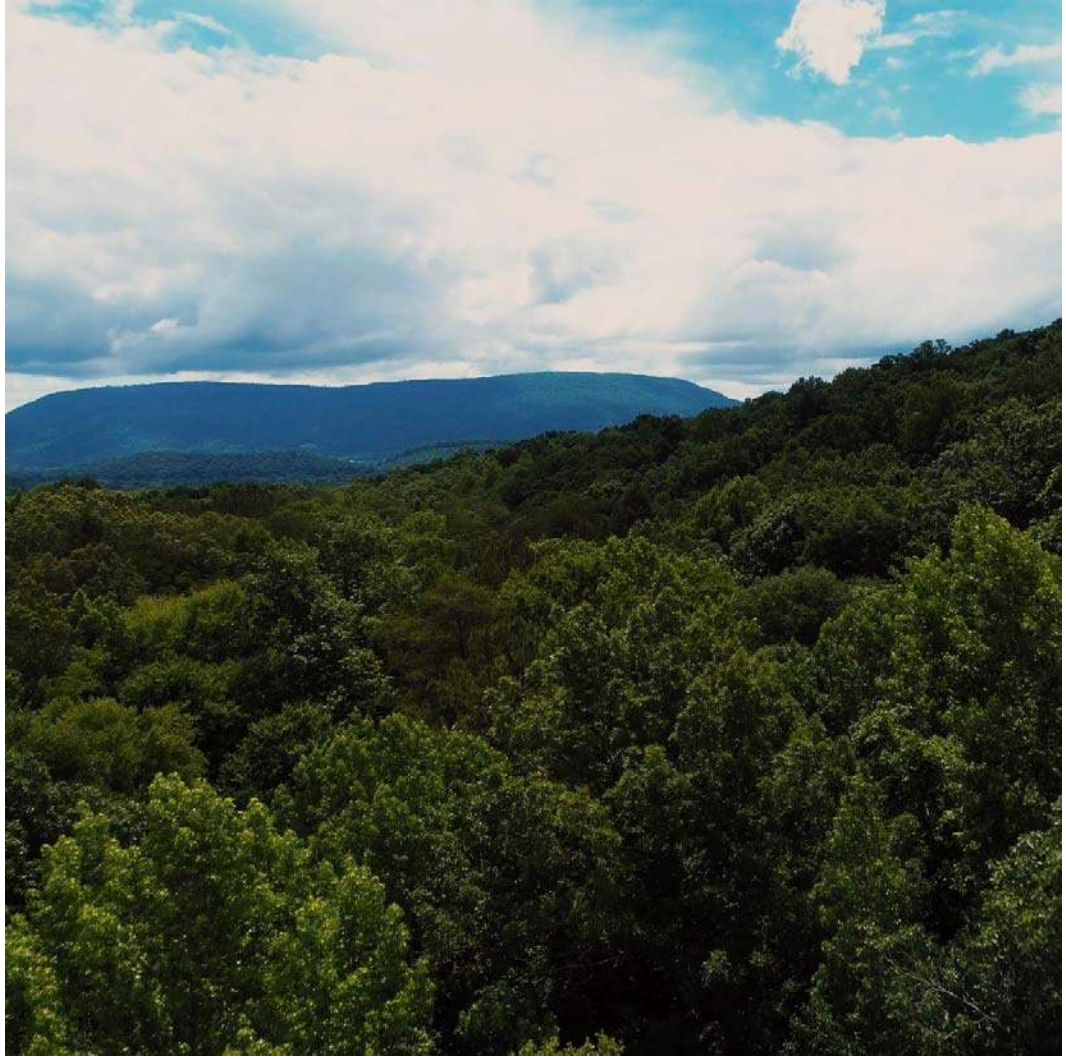
Preserving Trees Becomes Big Business, Driven by Emissions Rules

California kicked off a market in forest preservation and now energy giants such as BP are betting it’s going to become lucrative



Lyme Timber's property in Tennessee.

GRUNDY COUNTY, Tenn.—For much of human history, the way to make money from a tree was to chop it down. Now, with companies rushing to offset their carbon emissions, there is value in leaving them standing.

The good news for trees is that the going rate for intact forests has become competitive with what mills pay for logs in corners of Alaska and Appalachia, the Adirondacks and up toward Acadia. That is spurring landowners to make centurylong conservation deals with fossil-fuel companies, which help the latter comply with regulatory demands to reduce their carbon emissions.

For now, California is the only U.S. state with a so-called cap-and-trade system that aims to reduce greenhouse gasses by making it more expensive over time for firms operating in the state to pollute. Preserving trees is rewarded with carbon-offset credits, a climate-change currency that companies can purchase and apply toward a tiny portion of their tab.

But lately, big energy companies, betting that the idea will spread, are looking to preserve vast tracts of forest beyond what they need for California, as part of a burgeoning, speculative market in so-called voluntary offsets.

One of the most enthusiastic, BP PLC, has already bought more than 40 million California offset credits since 2016 at a cost of hundreds of millions of dollars. Last autumn, the energy giant invested $5 million in Pennsylvania's Finite Carbon, a pioneer in the business of helping landowners create and sell credits. The investment is aimed at helping Finite hire more foresters, begin using satellites to measure biomass and drum up more credits for use in the voluntary market.

BP has asked Finite to produce voluntary credits ASAP so they can be available for its own carbon ledger and to trade among other companies eager to improve their emissions math. As part of its shift into non-fossil-fuel markets, BP expects to trade offset credits the way it presently does oil and gas.

"The investment is to grow a new market," said Nacho Gimenez, a managing director at the oil company's venture-capital arm. "BP wants to live in this space."



Foresters David McMath and Chad Westfall measured trees on Lyme Timber's property in Tennessee.

By paying landowners not to cut, companies can say they are responsible for having locked up a specific amount of carbon in the standing trees, calculable to the metric ton. It's great for public relations, meeting carbon-reduction targets and courting investors who are shoveling money into funds that promise to invest with ecological and social responsibility in mind.

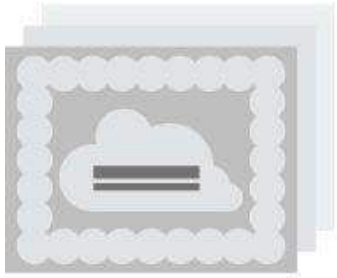
Old-growth forests are also a defense against wildfires, because they are less susceptible than the scrubby growth that fills in after a clear-cut.

Skeptics contend the practice does little to reduce greenhouse gases: that the trees are already sequestering carbon and shouldn't be counted to let companies off the hook for emissions. They argue that a lot of forest protected by offsets wasn't at high risk of being clear-cut, because doing so isn't the usual business of its owners, like land trusts, or because the timber was remote or otherwise not particularly valuable.

“It isn’t adding to the carbon balance one jot,” said Duncan McLaren , a Lancaster University professor who studies climate engineering. “What it is doing is validating the emissions.”

A Brief Introduction to California’s Cap-and-Trade Program













California sets annual caps on statewide emissions, which decline over time.

The state distributes allowances, permits that let businesses emit a certain amount of greenhouse gases. Some are given free, but most are sold at auction.

Polluters can stockpile allowances for later use, or trade them like financial assets.

Companies can cover a sliver of their emissions with offset credits, which cost less than allowances and have public-relations value.

Offset credits are granted for capturing methane from dairies and mines, destroying ozone-depleting substances and preserving forests. Recipients can use or sell them on the open market.

Source: staff reports

This trade in standing trees is the latest market-based effort to curb pollution. Cap-and-trade was deployed to reduce acid rain after President George H.W. Bush signed amendments to the Clean Air Act that limited sulfur dioxide emissions from power plants. Lawmakers during the Obama administration pitched a federal cap-and-trade system to reduce greenhouse gases and slow global warming, but the plan stalled amid debate over costs and its effectiveness in dealing with a world-wide problem.

California forged ahead, setting caps on emissions, which become stricter over time, and creating a corresponding number of allowances. Refiners, fuel importers and utilities vie for the allowances at auction and turn them over to regulators to cover their emissions. Quebec linked its own program with California's in 2014. The European Union operates a separate emissions trading program.

The companies have the option of covering up to 4% of their emissions with less-costly offset credits, which California issues for capturing methane from dairies and mines, destroying ozone-depleting substances and, most popularly, preserving forests.

About 153 million forest credits have been issued, each representing a metric ton of sequestered carbon. They limit logging on about five million U.S. acres. That's a sliver of the 740-million-odd acres of U.S. forests and woodlands that aren't already reserved, but the amount of offset-protected property is growing fast.

More than $1 billion has been paid to U.S. woodland owners not to cut, said Sean Carney, Finite's president. The most prolific of forest-offset firms, Finite has represented timberland owners including Maine's Passamaquoddy tribe, a Danish pension fund, a West Virginia coal concern and investment firms like the The Lyme Timber Co. Finite is surveying tracts in Minnesota's frigid peatlands, along Tennessee's Cumberland Plateau and elsewhere that will add hundreds of thousands of acres.

California offset credits issued, by project type, in millions

Note: Data as of August 12, 2020
Source: California Air Resources Board

If other governments join California and institute cap-and-trade markets, voluntary offsets could shoot up in value. It could be like holding hot tech shares ahead of an overbought IPO. Like unlisted stock, voluntary credits trade infrequently and in a wide price range, lately averaging about $6 a ton, Mr. Carney said. California credits changed hands at an average of $14.15 in 2019 and were up to $15 before the coronavirus lockdown drove them lower. They have lately traded for about $13.

These days, voluntary offsets are mostly good for meeting companies' self-set carbon-reduction goals. BP is targeting carbon neutrality by 2050. Between operations and the burning of its oil-and-gas output by motorists and power plants, the British company says it is annually responsible for 415 million metric tons of carbon emissions.

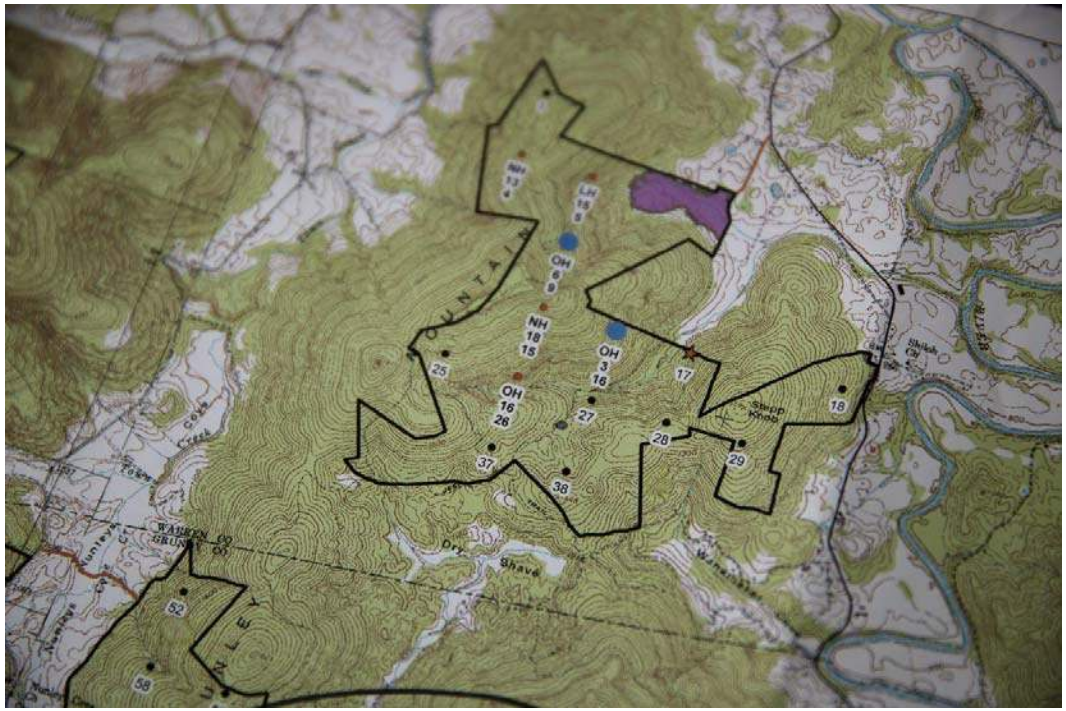
Finite was launched in 2009 by Mr. Carney and financial backers in anticipation of a shake-up of forest economics.

He was raised in the woods along the West Virginia side of the Ohio River, where his father worked for a coal company. He left for the University of Southern California and immediately missed the trees. “Like landing on the moon,” he said.

Finite didn’t earn a penny for four years. Mr. Carney gave up pay. He and other Finite employees traveled to the far corners to tell landowners about the coming carbon market.







A forester measures trees in an area picked at random to estimate how much carbon has been stored on a tract of timberland.

Tribes and land trusts were early converts. In 2013, when California began issuing offset credits, Finite was at the front of the line with 19,104 trust-owned acres in eastern Maine.

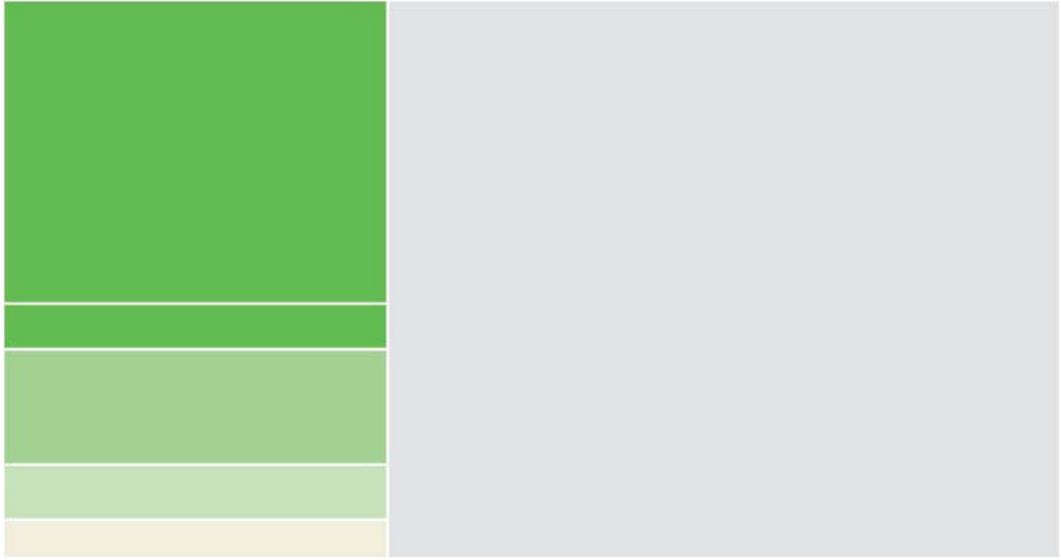
Maine's Passamaquoddy raised more than $30 million enrolling 98,532 acres. The tribe used the money to refinance its wild-blueberry business, build a sugar shack for its maple syrup operation, fund a housing program, start a suboxone clinic to fight opioid addiction and, when the coronavirus lockdown hit, stock the local food pantries, said Corey Hinton , a lawyer for the tribe.

BP paid more than $100 million to Alaska Native corporation Sealaska Corp. to manage 165,077 acres under California rules.

Nonbelievers came around. "I once had a landowner tell me the first evidence he saw of climate change was the first check he got from Finite Carbon," Mr. Carney said.

Charleston, W.V.'s Rowland Land Co. was swayed by low hardwood prices. Though prices for softwood lumber, which comes from evergreens and is used to frame homes and for fences, have climbed to records this summer, lumber from deciduous trees hasn't sold for so little since the housing crash. Rowland started out logging in 1886 but discovered coal in 1902.

"We've been mining coal for a long time and, like most land companies, we see the light at the end of that tunnel," Chief Executive David Pollitt said. "Pretty soon the coal will deplete and we'll be a timber company again."



Natural-origin timberland

447 million acres

Other land

1.44 billion acres

Planted timberland: 67.4

Other forest: 170.4

Reserved forest: 80.7

Woodlands: 57

California issued Rowland 1.9 million offsets covering 35,466 acres of mostly poplar and oak, a big boost during a period of poor prices for Appalachian coal. Plus, the offsets won’t prevent Rowland from cashing in on fads in furniture, cabinetry and flooring.

Sellers can selectively cut so long as the felled trees’ mass is less than what their woods have added since offsets were issued. Or they can sell additional credits

against the growth.

“If we see a spike in demand for one species, we’ll look around our properties and we’ll find a patch of that and we’ll cut it,” Mr. Pollitt said.

Molpus Woodlands Group LLC of Jackson, Miss., is among the country’s largest timberland investment-management organizations. Those are basically buyout firms, but for woods instead of companies. Molpus has century-old roots in a lumberyard, supplied ammo boxes for World War II and in the 1970s ran one of the country’s largest sawmills. Now it is cranking out offsets.

Working with Finite, Molpus has produced offsets in Kentucky, Tennessee and twice in New York’s Adirondacks. It is in the midst of registering California credits in Minnesota and on Michigan’s Upper Peninsula.

A March trunk-measuring in Minnesota was postponed by the coronavirus pandemic and will have to wait until the bogs freeze again. The 167,174 acres near the Canadian border are poised to generate north of $30 million for Molpus investors, said Dick Kempka, who worked for conservation groups before joining in 2017 to wring nontimber income from its lands.

“We’re seeing more and more value from having the trees stay there longer,” he said.

Hardwood lumber producer price index, monthly (Dec. 2003=100)

California forest offset trading volume

Note: Price index is not seasonally adjusted.
Source: U.S. Bureau of Labor Statistics (price index); California Air Resources Board (offsets)

Offering an income-producing alternative to logging so that trees could remain standing and absorbing carbon motivated California's decision to accept forest credits, said Andrea Tuttle , who helped develop the program when she led the state's Department of Forestry and Fire Protection. So far it has worked, thanks to strict criteria involving third-party verification and audits every six years, she said.

"We can show accrual of carbon," she said. "We can demonstrate it through measurements because trees stand still and we can put a tape measure around them and show that they have grown."

That's why Tim McAbee , who leads project development for Finite, was recently looking for a place to park in the middle of nowhere, Middle Tennessee. He and two freelance foresters needed to measure trees deep in Lyme's woods to

determine how much carbon is sequestered on its property and thus how many offset credits the firm can sell. The trees were around points chosen randomly by a computer on Lyme's 18,369 acres. Accessibility wasn't considered.

A lane led toward one target. Unwelcoming signs at the gate warned against trespass and berry picking. Beyond, a homestead with trash-bag scarecrows out front. People were inside but when none answered knocks, Mr. McAbee turned back.

On the far side of their destination he found a clearing and parked near a hunting blind. They donned hard hats and orange vests and set off into thick and thorny woods for an hourslong trudge toward the trees they had to measure. They found a stub of painted rebar surrounded by trees numbered to 10 in matching blue. The white ash, black oak, red maple and sassafras were striped 4½ feet up their trunks where another crew had measured their girth months earlier.

Share your thoughts

How effective are forest offsets at countering carbon emissions? Join the conversation below.

Mr. McAbee pointed to an 80-foot-tall sugar maple, then turned to one larger. "Carbon credits allow that tree to grow into that tree," he said.

He joined Finite after a big utility asked him for offset credits and he has been on the road a lot since, overseeing jobs like in Tennessee.

In the woods, he and the foresters arrived at the first set of coordinates nibbled by chiggers and full of prickers. David McMath , who lives in Vermont's Northeast Kingdom and looks a little undressed without his trekking pole, stepped up to No. 1, pulled a length from the girthing tape dangling from his vest and hugged the hickory.

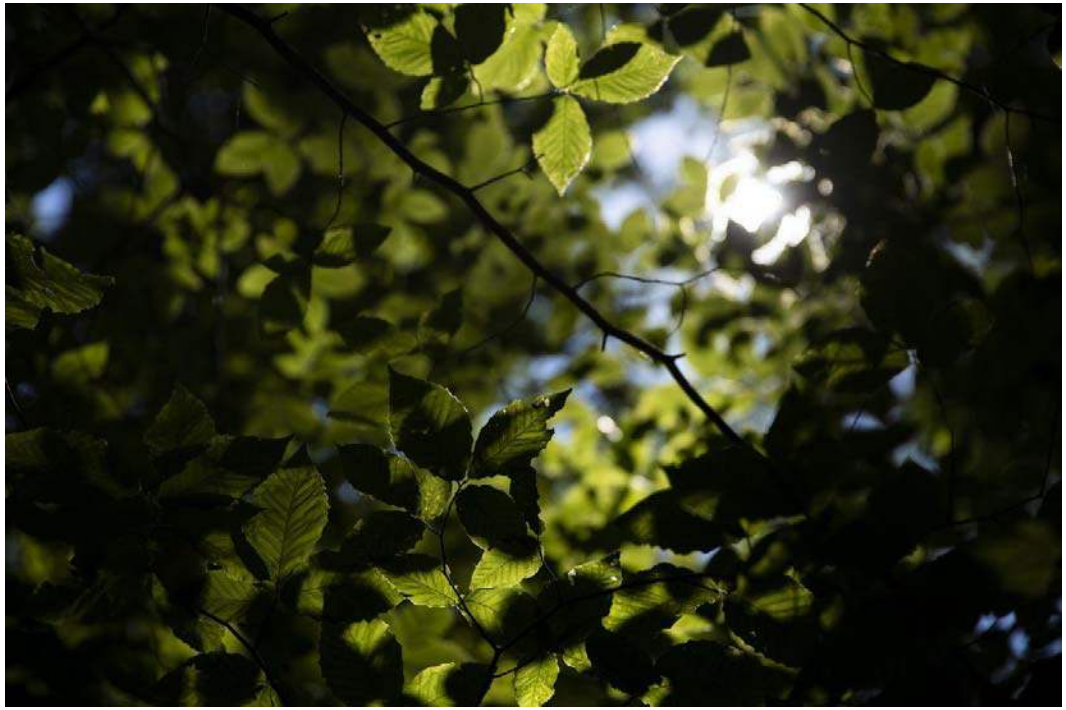
Cole Parsons , a West Virginian who followed his father into forestry, paced away from No. 1 and pointed a laser hypsometer at its trunk and then up at its crown to

gauge the tree's height. It was hard to get lines of sight with all the leaves.

Mr. McAbee clipped away vines and then shouldered into the hickory. The trunk didn't budge but leaves in the canopy wiggled enough for Mr. Parsons to spot and zap.

Their CVs say "consulting forester," but in the woods they are called cruisers, whether estimating trees' value at the mill or measuring them for the carbon market. They are fit from all the hikes, tech savvy and can glance at a hickory and say whether it has mockernut or pignut the way most Americans can tell between the Dallas Cowboys and the Cleveland Browns.

The difference between evaluating trees for cutting and carbon is precision. Tenths of an inch in diameter or a few feet in height matter when calculating sequestration. Saplings that would be wasted in logging are factored in. Latin names are used.



The forest canopy.

“In timber, if you were a landowner and a cruiser handed you your inventory, you wouldn’t check it. Carbon, we’ve got four different entities checking our work and measurements,” Mr. McAbee said.

All the measuring adds up. Registering typical terrain costs about $350 per plot, and there can be hundreds of them, he said. In Alaska, where helicopters and bear guards are needed, it runs around $1,000.

Finite hopes to reduce costs by replacing some of the legwork with satellites and artificial intelligence. It is launching an online platform for owners to register as few as 40 acres in the voluntary market.

Lyme, which is considering voluntary offsets for a $300 million tract on Michigan’s Upper Peninsula that it bought last autumn from timber giant Weyerhaeuser Co. , seeks forests made marginally economical by rugged terrain or mill closures and sells offsets to cover much of the purchase price. That reduces the urgency to turn woods into wood, said Jim Hourdequin , the Hanover, N.H., firm’s CEO.

“We make timberland less speculative,” he said.

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