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GREEN CARBON: FORESTRY OFFSETS IN CALIFORNIA'S NEW CAP & TRADE PROGRAM

The first U.S. market for forest carbon offset projects implemented anywhere in the U.S. will open in 2012.

The state of California, as in so many things, is poised for a first. Under its Global Warming Solutions Act, known as AB32, the Golden State will establish the nation's first compliance carbon market to allow forest carbon offsets. When it opens, California's carbon market will be the second largest in the world, after the European Union, and the largest in North America. New England's Regional Greenhouse Gas Initiative, or RGGI, is currently North America's only compliance market for carbon emissions but does not allow forest carbon offsets.

Among all the variety of ecosystem markets, carbon alone is easily amenable to global or national trading. A ton of carbon is a ton of carbon, whether wafting into the atmosphere of Beijing or Denver, or locked up in a peat bog or a boreal forest.

Kenya just opened a carbon credit exchange and South Korea recently announced its intention to do so. Yet in the U.S., national comprehensive energy legislation could not pass the Senate in 2010. Thus, carbon markets in the U.S. are regional and multiplying, each with their own credit certification standards and criteria for entering. Most U.S. carbon markets have been voluntary to date, with the exception of RGGI (pronounced "Reggie").

Capping Carbon: In Search of the Mix that's "Just Right"

Carbon cap and trade programs are subject to a Goldilocks syndrome. Set the initial price of carbon too low, or give away too many allowances for free, and demand may be sluggish, prices low, and pollution reduction insufficient. Set the price too high, however, and the cost of carbon reduction may produce too much drag on the economy - a particularly abhorrent prospect just now. Cap & trade programs seek to find the balance that is "just right." Allowing well-designed

offsets into the market is key to this formula, as is flexibility to make future adjustments to market rules.

The goal of California's program, administered by the California Air Resources Board, or ARB, is to reduce carbon emissions to 1990 levels by 2020. The program will begin by mostly giving out a limited number of emissions "allowances" to some 300 businesses representing 600 facilities in the state, then auctioning the rest. The cap on greenhouse gases will decline each year by 2% then later 3%, reducing the total number of carbon allowances in the state.

A recent analysis by Barclay's Bank of London projects that by 2015 the California market will approach one-fifth the size of the EU market that same year. Barclay's concludes that while prices for carbon allowances (CCAs) and offsets (CRTs) are expected to begin trading in 2012 at around \$12, they will likely rise steadily and could hit an average of \$75 in 2018-2020.

Energy efficiency programs and help for low-income electricity consumers will be a big destination for cap & trade receipts, if RGGI is any indication. In New England, states have spent a combined average of 78% of proceeds on such programs, according to a February 2011 RGGI Report. Furthermore, for every \$1 states

have invested in energy efficiency, consumers have seen \$2 to \$4 in energy savings, with energy costs down by 15% to 30%. Unfortunately for those who seek progressive investment of CCA auction dollars, the second biggest use of RGGI money has been to cover state deficits. With a \$28 billion deficit in California, the temptation to do something similar will be very high.

Offset Demand Projected to Grow

The California Air Resources Board defines offsets as “greenhouse gas emissions reductions from sources outside the cap-and-trade program.” Emitters purchase offsets when they can’t meet their pollution targets through direct reductions or by purchasing allowances. ARB has thus far approved four types of offsets, but Mary Nichols, the ARB Chair, is on record that the program is seeking to expand its variety of offsets into sectors such as agriculture.

Currently the program will allow offsets generated from forestry, urban forestry, manure management, and destruction of ozone depleting substances (such as refrigerants). Up to 8% of a company’s emissions can be covered by purchasing offset credits, but this limit may be amended in the future.

The initial phase of trading in California, which is set to begin January 1, 2012, will include major industries and utilities. The second phase starting in 2015 will include distributors of gasoline, natural gas and other transportation fuels. Point Carbon analysts estimate California’s market is expected to need upward of 222 million offset credits by 2020.

If carbon markets take off within the next decade - and Point Carbon estimates that California’s market could reach \$10 billion by 2016 - the guidelines for forestry offsets could have sweeping implications for forest management, the economics of timber production and forest protection, wood-based biofuels, and markets for wood materials.

Basics of the Forest Project Protocol

Forestry offset projects are specifically designed to increase the storage and uptake of carbon in plant tissues and soils. ARB’s Forest Offset Protocol is based on Version 3.2 of the Climate Action Reserve’s voluntary Forest Project Protocol, or FPP

The FPP defines three types of offset projects:

- reforestation (afforestation, the establishment of trees on ground that has not historically supported forest, is prohibited);
- improved forest management, such as increasing the length of harvest rotations, increasing productivity

- through thinning, or increasing stocking levels; and
- avoided conversion, which prevents turning forest into non-forest through a conservation easement or transfer to public ownership - eligible only on private lands.

The Reality of Real, Permanent, and Additional

Protocols for forestry offsets vary in their details, but usually include provisions to ensure that offsets are real, permanent, additional, verifiable, quantifiable, and enforceable. [See sidebar, “Do You Know What Your Forest Offsets Are?”] When viewed from the perspective that carbon markets are all about reducing net atmospheric carbon globally, these guidelines make sense. When trying to define actual protocols to guide the implementation and verification of such projects, it becomes extraordinarily complex.

Ed Murphy is Resource Inventory Systems Manager for Sierra Pacific Industries, the largest timber company in California. Mr. Murphy has written 1.7 million acres worth of forest management plans for Sierra Pacific and has been intimately involved with the effort to craft forestry protocols for AB32’s cap and trade program. He is well-versed in how to manage wildlife issues as well as calculate longterm sustained yield, a requirement under California’s Forest Practice Act. “Much of what I say,” he advised, “comes from the context of California laws. Other states may not have similar forest management requirements.”

Avoiding the Morally Hazardous Definition of Additionality

“Given California’s state law requirements to demonstrate sustainable harvest, the idea of a protocol for carbon offsets that would require 100 year sustainability was less of a shock,” when developing protocols, Murphy said. Controversy centered more around the concept of additionality.

“The protocol is quantifying that there’s a way to manage a property to generate a net increase in total carbon removal from the air, what is often referred to as ‘above business as usual’ - a bizarre environmental concept. The idea is that you are held against a measure of common practice. But under business as usual, if a company is already managing their property well and sequestering carbon, they would get no credit.”

In other words, there is the potential for moral hazard if the landowners who have been the poorest managers (and thus have low stocks of standing carbon) are rewarded, rather than penalized, for changing their forestry practices late in the game.

A Texas nonindustrial private landowner who participated

in an offset project developed for the Chicago Climate Exchange in 2008 expressed his frustration this way:

“The USDA ‘EQIP’ program will pay to replant pasture: around \$200 per acre. I’m already sequestering carbon by leaving the trees, but would have made \$400 to \$500 per acre if I’d had to plant them. Now I’m throwing away \$500 per acre by being responsible.”

No one is paying me to manage my property properly. If you’re going to only pay me to manage for added benefit, then I’ll cut every tree I own and let it sit to show it has no carbon sequestered, then I’ll go back in 5 or 10 years - the length of the waiting period - and sign up for the carbon offset program. It seems impossible to effectively do a program where they’ll give you credit if you’re already doing the right thing. As a landowner, I get more money if I act irresponsibly.”

This issue is one reason why FPP development stretched to almost 30 months. “Eventually we moved to a more rational interpretation,” says Murphy. “Additionality is measured by assessing whether or not a project removes more carbon than the average from a certain forest type. How is average defined? The USDA Forest Service has a program of Forest Inventory and Analysis, or FIA, with plots on all forested regions of the U.S. Every five to ten years they update estimates of standing carbon stocks on all properties, including calculations of current stocking levels and standard management practices for around 300 different forest types.”

How does this remove the potential for moral hazard? In the example given by the landowner above, said Murphy, “it would do no good to clearcut because when you try to register your project for carbon offsets, they’d say ‘fine, when you reach 70 tons per acre, come back and start talking to us.’ That 70 tons is the base number. It comes from the entire private land base in your ecoregion, not just the landowner’s acres. And because the FIA recalculates standing carbon every 10 years, if a landowner waits too long to participate, his baseline number is going to go up because the ‘common practice’ standard will have gone up,” says Murphy.

Co-benefits or Compelling Necessities?

Another subtext of the negotiations over forest carbon offsets is the practice of clear-cutting. Environmentalists have been concerned not to approve a protocol that would encourage more clear-cutting, even though Ed Murphy maintains that properly managed even-aged

forests will sequester a lot more carbon than other forms of management.

“Under the forest carbon protocol, you can’t have more than 40% of your project ground in trees less than 20 years old. If you do the math, you have to have 50 year rotations. Guys in the South will say that’s ridiculous because they can manage sustainably on 25 year cycles. On the other hand, are 25-year rotations sustainable for Red-cockaded Woodpeckers?”

“We’re in a game of compromise on environmental management. Everyone seems to view co-benefits, such as wildlife habitat, as somehow equally important in this process. I’ll play devil’s advocate and ask, why? If we’re looking at massive effects from global warming, why aren’t solutions that directly attack carbon considered valuable?”



Peter Miller, Senior Scientist with the Natural Resources Defense Council in San Francisco has participated over the past six to seven years in helping to develop forestry offset protocols, and he has an answer for that question. “There’s been a lot of concern from the public about clear-cutting and the associated environmental impacts, which are clearly substantial. It doesn’t make sense from an environmental perspective to encourage new clear cuts in an existing uneven aged forest with a diverse ecosystem solely to sequester carbon. But if clearing happened in decades past, this program can help provide benefits.”

Shelby Livingston, the ARB staffer in charge of forest issues, stated that “one of the requirements under AB32 is we have to address co-benefit issues. It wasn’t to take primacy over carbon, but it had to be considered

as well.” On the other hand, the broader Western Climate Initiative does not require any environmental or social assessment other than that required to ensure the integrity of the greenhouse gas removal.

In other words, a forest is far more than a carbon bank. It’s a living system that provides many of the very benefits society is concerned about saving from the effects of global warming. Forests play a key role in the water cycle, water filtration, soil creation, wildlife habitat, recreation and renewal. When viewed from the perspective of carbon sequestration, these values are considered “co-benefits.” When viewed from the perspective of society, these values are essential ecosystem services that can’t be sacrificed.



“We are very supportive of forest offsets so long as they meet the requirements of AB32 and are real, verifiable, quantifiable, enforceable, and additional,” concluded Peter Miller. Lewis Blumberg, Director of The Nature Conservancy’s Climate Change Program in California, echoed that sentiment.

“We support ARB’s plan for AB32 implementation and are very pleased they have provisions that allow forests to be part of the program. This provides a great

opportunity for a new and complementary revenue stream for landowners who are willing to make changes to increase the carbon stored on their property,” said Blumberg. “If they are logging aggressively, the value of carbon may not meet their expectations because it will be less than the value of trees as wood. Those willing to take a long-term perspective, or who derive diverse benefits from their land, will find it of value.”

Sustainable Harvest and Natural Management

The major requirements of the offset protocol revolve around (1) ensuring forest management that is sustainable, and (2) ensuring that projects support and protect the many co-benefits of forests through the application of “natural forest management.”

As currently defined, sustainable forest management requirements apply to the entirety of forest landholdings in one ownership. This serves as a primary means of preventing internal leakage. Projects are considered sustainable if they meet one of the following standards:

- a. certified by the Forest Stewardship Council (FSC), the Sustainable Forestry Initiative (SFI) or the American Tree Farm System (ATFS);
- b. guided by a long-term sustainable management plan, sanctioned and monitored by state or federal governments; or
- c. employ uneven-aged management while maintaining an average canopy cover of at least 40%.

The acreage of each individual offset Project must also be managed according to natural forest management guidelines, which generally require that projects:

1. maintain or increase standing live carbon stocks;
2. show verified progress toward native tree species composition and distribution (defined with ecological data for various forest types); and
3. manage the distribution of habitat/age classes and structural elements to support functional habitat for locally native plant and wildlife species.

The Forest Certification Furor

Both the Sustainable Forestry Initiative and the Forest Stewardship Council have been following the development of California’s forest carbon offset protocol. The issue of which forest certification standards would be accepted under the FPP recapitulates the debate concerning which standards meet LEED requirements. In 2010, the US Green Building Council affirmed the current standard, which only allows FSC-certified wood to receive LEED certification points.

The California protocol has gone the other way. A white paper developed by KPMG as background for this issue concluded that relying on any of the certification systems would provide greater assurance of sustainable harvesting practices than the alternative options (b and c above) provided by the protocol.

Nadine Block, Senior Director of Government Outreach for the Sustainable Forestry Initiative stated that SFI supports the conclusions of the white paper, since it

recognizes “forest certification as an appropriate tool to ensure sustainable forest management in forest carbon projects.” She also expressed support for recognizing all three wood certification programs operating in the US - SFI, ATFS, and FSC.

The Forest Stewardship Council, on the other hand, disagrees. Dr. Gary Dodge Ph.D., Director of Science and Certification with FSC maintains “there are clear and very important differences in the three certification

Cap & Trade in North America: Two Steps Forward, One Step Back

The Regional Greenhouse Gas Initiative (RGGI), America’s first regulatory carbon cap & trade program, began trading January 1, 2009. In 2010 the Senate narrowly missed passing a comprehensive energy bill, which would have established a national market for carbon. Over the past several months, New Hampshire, New Jersey, and Maine, three of RGGI’s ten states, signaled their intentions to opt out of the program. As of May 2011, New Hampshire’s Senate had rejected House legislation to exit the program as did a committee in the Maine legislature, while New Jersey’s Gov. Christie announced his decision to leave it. However, the process of withdrawal is not entirely up to the governor and awaits further regulatory wrangling.

In 2006, the state of California passed AB32, specifying a range of energy savings initiatives, including the establishment of a compliance market for carbon. Last fall, California’s Proposition 23 was designed to stop the implementation of cap & trade in its tracks - a measure that was defeated overwhelmingly by 61% of voters. That same election cycle swept in numerous new Republican governors, at least three of which have indicated their unwillingness to continue moving forward with regional cap & trade proposals, most notably Governor Susana Martinez of New Mexico.

Mr. Cummins of the Western Climate Initiative, which began in 2007, confirmed that at this time, New Mexico is not moving forward with implementation of 2010-approved regulations for a cap & trade program. Calls to the New Mexico Environment Department resulted in referral to the governor’s office, which did not respond to numerous requests for comment. However, a New Mexico state legislative effort to roll back the program failed in February.

The latest fly in the petroleum jelly is the ruling issued by a San Francisco County Superior Court judge against the California Air Resources Board, or ARB on March 22, 2011. Charging that the agency did not sufficiently assess alternatives to cap & trade as required by law, the judge suspended implementation of AB32 until further analyses are conducted. Neighborhood and environmental justice groups, including the Association of Irrigated Residents (AIR), believe cap & trade will disproportionately hurt low-income communities and brought the lawsuit against the Board.

Observers are left wondering whether this will push back the January 1, 2012 deadline for opening California’s market - possibly as far as January 2013. Speaking for the California ARB, Stanley Young emphasized “we are

hopeful that this can be resolved expeditiously and that we can meet our target start date of January, 2012. We believe it’s a program that will generate green jobs, clean up the environment, and provide a wealth of opportunities for innovation that will benefit California’s economy.”

In May, California’s lead attorney appealed the ruling that has stopped ARB from continuing its development of rules for the cap and trade program, and the appeal halts the injunction, allowing the agency to continue its work toward meeting the 2012 deadline. Simultaneously, there are hints that EPA may be considering ways to allow existing regional cap and trade mechanisms to provide for compliance with New Source Performance Standards under the Clean Air Act.

In 2008, British Columbia became the first Canadian province to legislate a cap & trade program, also scheduled to open as part of the WCI in 2012. BC’s new administration continues to develop its market rules, but no firm decision as to its 2012 participation has been forthcoming. A Quebec spokesman has stated that the province plans to start its WCI program in 2012, but it’s likely that in the short-term, much in the WCI hinges on the fate of cap and trade in California.

programs' capacities to address internal leakage, which is leakage within a single ownership, and to safeguard the environment."

For example, Dodge said, "Other programs allow conversion of natural forest to biodiversity-poor conditions and short-rotation plantations. The CAR protocol that would essentially allow clear-cutting on a 50-year rotation doesn't even begin to approach representation of the range of natural conditions in many long-lived North American forest types."

Despite KPMG conclusions to the contrary, Dr. Dodge maintains that a close reading of the certification standards reveals that other programs may require sustainable harvest throughout an ownership, but may still allow plenty of leeway to increase harvest in one unit to compensate for decreased harvest on a Forest Offset Project. "This brings into question the most important and foundational issue of an offset project, its net carbon gain. FSC, on the other hand, requires sustainable harvest unit by unit on a rolling 10-year cycle, so there is no possibility of leakage from one unit to another."

"We are very cautious with participation in forest-based carbon policy," Dodge continued. "Nonetheless we are absolutely in favor of establishing alternative revenue sources for forest managers in recognition of the multiple ecosystem benefits and services that well-managed forests offer. As currently written, the CAR protocol does not provide what we feel are adequate safeguard mechanisms against potentially harmful activities."

Both SFI and FSC representatives do agree that forests are essential in considerations of carbon emissions, storage, and sequestration. They are both encouraged by the Climate Action Reserve and ARB recognizing the role of forests in offset programs.

Offsets in the Furniture

"I don't think the protocol allows enough credit for producing wood products," said Ed Murphy. "The additionality of a project comes from live carbon left standing in a forest. All harvests have to be subtracted. So the amount of carbon sequestered in wood products is being shorted, in my opinion."

"Federal studies looking at the average life span of a 2x4 estimated that after 100 years, something like 49% remains out of the atmosphere in the wood, and another 25% in a landfill does not break down quickly. So even though about 75% of carbon from harvested wood remains out of the atmosphere after 100 years,

the protocol only gives credit for 45% of the total harvest, compared to 100% of the standing live biomass.

"In this world of carbon accounting, you are supposed to be conservative, but wood is so much more efficient than brick, concrete, steel or aluminum. There's up to a ten-fold increase in energy usage with steel or aluminum studs." In addition, this percentage does not count the fact that many sawmills, which operate at 50 to 60% energy efficiency, are converting to biomass power generation using the huge amount of wood byproducts created by the industry.

What About the Little Guy?

Murphy says there's a huge value to keeping small landowners viable and finding a way to help them store carbon and share in the benefits. "Why do I care?" Murphy asked. "Because the 40-acre guys own way more ground than us big guys; there's a societal value there. ARB is acting like it's not as important because it's a nightmare on the accounting side." Working with small landowners requires aggregation of offsets into pools, a practice that occurred within the Chicago Climate Exchange.

Stanley Young, Communications Director of the California Air Resources Board says of aggregation, "We are still looking at it; that's one of the benefits of a protocol developed by the Climate Action Reserve. It allows road testing; before it is included in our market, we need to know how it's going to work. There are differences in verification requirements for aggregation projects that don't match up to ARB's process for cap & trade regulation."

Managing the "Moody's Subprime Triple-A Rating Problem"

Recall that one cause of the Wall Street subprime mortgage securities implosion was the fact that ratings agencies, like Moody's, had every incentive to give the banks ratings they wanted and much less incentive to be objective? Couldn't the same apply to forest project verifiers?

Mr. Young relates that the ARB handles this issue by requiring independent verifiers, trained according to ARB specifications. "A full project verification, including an onsite visit, will occur on each project every 6 years, with an interim desk audit occurring annually. To avoid any conflict of interest, a new verifier rotates in to assess the project every six years," he said.

Just like Pork Bellies

What about security of both carbon allowance and offset credits? In January 2011, the EU had 2 million carbon

allowances stolen by cyber-thieves who hacked into registry databases. Mr. Young explains that “the Climate Action Reserve is the place to register and administer verification reporting for use in the cap & trade program. Anything credited by CAR is then reviewed by ARB, and only then does ARB issue compliance credits in its own system. All credits must reside in the ARB system to be traded.

“We will be using the Markit system for tracking credits. We authorize credits and issue allowances, but once they are bought and held the credits can be traded just like pork bellies or any other commodity represented through a standard legal contract that meets SEC regulations. There might even be derivatives.

“We are well placed to ensure complete transparency, accurate tracking, and validation. We will know who holds each credit, and we are going to be developing a market oversight entity the same as RGGI, with Board oversight and the ability to amend the process as needed to address market issues.”

Wholesalers, Foresters and Cap & Trade

Neiman Reed Lumber Company, located in southern California, is a classic wholesaler with a distribution yard. They are a chain-of-custody distributor certified by the Forest Stewardship Council, or FSC, and they also handle a high percentage of SFI stock.

Ed Langley, Neiman Reed Senior Vice President, speculates about California’s carbon trading and how it might affect him. “I don’t understand what the impacts would be on logging and decisions made by our producers, but lumber is definitely a supply and demand-driven market. Small changes make dramatic swings in price levels. If lumber were to get scarce, I think it would be parceled out to only the best customers.”

Ed Murphy’s response is “at least globally, that’s not likely. The world supply of growing timber stocks is probably on the increase. The value in boards is still on a comparable basis 10 to 15 times more than the value of standing carbon. Even at a \$70 per ton price for carbon, the corresponding value for lumber is an average of \$400.

“My conclusion is that no matter how big the landowner, the carbon market can give an added income stream to people in the forestry business permanently. The value of carbon credits for avoided conversion will never replace the value of a condo on the site. But if an organization is willing to pay for an easement, the carbon benefit will lower the cost of that easement. I think the protocol in that sense is generally desirable from



a societal standpoint and because it doesn’t punish timber harvest, but promotes dedicated longterm timber management.”

Weyerhaeuser, a company that owns 6 million acres of timberland in the US, has participated in all iterations of the forest offset protocol development. “We have been a proponent of cap and trade,” says Anthony Chavez, Weyerhaeuser’s Public Affairs Manager for Washington state, “although we’d prefer it at a national level because the more entities participate, the more opportunity there is to trade. The whole benefit of this program is it gives you flexibility versus a prescriptive program for reducing carbon emissions.

“A uniform national program would be advantageous compared to a patchwork of different regional programs. Ideally, at the national level, Weyerhaeuser would want to see the program supportive of a broader range of forest practice standards.”

The Western Climate Initiative

Since 2007, California plus six states and four Canadian provinces have partnered to develop a regional trading system that will meet the needs and legal requirements of each individual jurisdiction. Known as the Western Climate Initiative, or WCI, this regional initiative has set a goal of reducing their collective greenhouse gas emissions to 15 percent below 2005 levels by 2020.

Patrick Cummins of the Western Governors’ Association serves as WCI Project Manager. “Because carbon allowances will be tradable across jurisdictions,” he

explains, “they have to be recognized by each state or province, which will set its own cap and allocate allowances at its discretion. Once the carbon allowances are in the market, however, they are completely tradable as a compliance instrument among all participating jurisdictions because they have uniform definition and measurement.



“It’s essentially the same story on offsets because an offset credit is a compliance instrument as well. States and provinces are working together to evaluate existing offset protocols, define a process for approving them, and possibly make some adjustments so that they are acceptable across jurisdictions.”

British Columbia is now finalizing its forest carbon offset protocol to align with the Western Climate Initiative’s recommendations, according to Colin Grewar, Public Affairs Officer in the BC Ministry of Environment. Although it is B.C.’s intent to define forest carbon offsets that meet both domestic and international requirements for quality, there appear to be numerous significant differences in proposed forestry practices between BC and CA. For example, BC project guidelines under development currently allow the use of fertilizer and afforestation, while the California offset protocol does not.

“No jurisdiction checks their sovereignty at the door in this process,” assures Patrick Cummins. “Everyone works together to come to agreement. The market

everyone is trying to create depends on clear, consistent, transparent rules, and the partners have a great track record of working all that out.”

Societal Co-benefits of Cap & Trade, Also Known as “Jobs”

Some businesses prefer a national program, others view cap & trade with distaste, while still others believe a straight carbon tax is preferable. However, numerous studies and RGGI’s experience to date indicate that cap & trade programs can generate significant economic and social benefits. WCI’s recent analysis of its proposed program includes data from the 2008-09 economic recession, and a range of assumptions about future economic growth, fuel and carbon allowance prices. The analysis showed the WCI program would support “robust economic growth and deliver net cost savings.” Likewise, RGGI calculates that expenditures under their program have created around 18,000 jobs in the program’s second year. Economic studies commissioned by the California ARB estimate a small overall increase in jobs by 2020 as a result of AB32.

The Human Dimension of Forest Offsets

Whether serving as the lungs of the planet, providing a biofuels bonanza, sequestering carbon, supporting wildlife, affecting microclimates, storing water, or providing food and recreation, a forest and its management is connected to questions of fairness, the distribution of nature’s values, philosophical issues surrounding the concept of stewardship, and the potential for human greed.

“Being in the business of growing and making solid wood products, we at Sierra Pacific have always viewed cap & trade as positive,” ruminates Ed Murphy. “We believe our industry is totally consistent with the concept of reducing our carbon footprint.”

“We’re privately held, so we can make decisions that many other corporate or small nonindustrial TIMOs [Timber Investment Management Organizations] cannot make. They do not have a 100-year perspective and in many cases can’t have one. I’ve always been amazed at our owner’s commitment to say we’re going to be in this business 100 years from now.

“Think about it,” says Murphy, “if you sell a ton of carbon at \$10 to \$12 bucks today, you are making a promise to keep it out of the atmosphere for 100 years. If you continue to increase your tons sequestered and sell more credits after 50 years, then those new credits will have another 100 years to go!

“It kinda gives you faith in humanity.”