

Council delays decision on ethanol appeal

By Eiji Yamashita

Hanford Sentinel, Wednesday, Feb. 20, 2008

After hours of discussion, the ethanol plant debate in Hanford isn't over. The Hanford City Council took two and a half hours Tuesday night listening to what both sides of the issue had to say, but ultimately delayed its decision after opposition groups argued they were not given additional information made available by the city in time for the public hearing.

At the center of the controversy is Great Valley Ethanol, a fledgling Bakersfield firm.

The company has secured city approval for its first-ever corn ethanol plant in south Hanford. But the decision has been appealed.

Company officials say the project would put Hanford on the ethanol map that is sprawling in California -- with bipartisan support -- where the industry claims a 1 billion-gallon demand is barely met by the current supply. Corn ethanol produced by a Hanford plant would be used as a gasoline additive replacing MTBE, which has caused groundwater pollution in the past, they say.

Great Valley Ethanol is now locked in a fight with opposition groups seeking a reversal in the city approval of its plan to build a plant capable of producing 63 million gallons of ethanol a year at the southwest corner of 10th and Iona avenues.

On Tuesday, the main issue was an addendum to the environmental impact report detailing various new mitigation measures the city is requiring of the company.

But opponents of the project, represented by Delano-based Center on Race, Poverty & Environment, argued the city cannot legally make a decision based on a document "slipping in at the last minute."

"The public review period of the environmental impact report closed long ago, and you can't fix the problems in a deficient EIR without having more public comment on it," said Luke Cole, executive director of CRPE, saying that's against the California Environmental Quality Act (CEQA).

"The fact that the addendum wasn't even available to the appellant, much less the public, shows that there's something going on behind closed doors. That's not what CEQA is about."

At the advice of City Attorney Robert Dowd, the council voted unanimously to postpone the decision for two weeks.

The opponents and proponents of the project will have another round to present their arguments on March 4.

The proposed ethanol plant is projected to emit 313,000 tons of greenhouse gas a year -- one of the reasons why nearby residents and environmental justice advocates oppose it.

The city-hired consultant previously found those emissions as "significant" but proposed no mitigation measures saying there's no viable options available.

In December, when the initial environment findings were released, the planning commission still approved the project concluding that the overall environmental benefits of the project outweigh potential negative impacts.

The Attorney General's office on Tuesday issued a letter urging the city of Hanford to take all feasible mitigation measures to address greenhouse gas issues, while acknowledging that corn ethanol's potential as an alternative fuel.

City consultant John Westermier said the Attorney General's Office likely did not read the recent addendum to the EIR that proposed various mitigation measures such as installation of solar panels to the office roof, energy-efficient lighting and heating/cooling systems, a water-efficient irrigation system, and idling restrictions on trucks. Opponents argue the measures aren't aggressive enough.

More debates over those measures are expected at the next public hearing.

After Tuesday's meeting, Cole welcomed the delay granted by the council but said the battle isn't over.

"I think it was an important due process issue," he said. "But it doesn't address the underlying issue that the city is fundamentally acting unlawfully if they approve the project as it is without physical mitigation measures."

Edward Settle, president/CEO of Great Valley Ethanol, took a stab at the opponents challenging them to walk the talk.

"There are over 50,000 people in this community. Most of the people we saw tonight weren't even from Hanford. They are people from out of town to comment because they have a philosophical difference with the U.S. and California policy," Settle said.

"If they spent their energy trying to install solar projects, that would be a real win for California. Go put them together. Do what we're doing. Try to make a difference by taking action."

City reps hear views on 'mastering density'

Written by Jonathan Partridge

Patterson Irrigator, Wednesday, Feb. 20, 2008

Walkable communities, varied housing, access to arts, culture, recreation.

Planners and architects promoted all those concepts while touting the benefits of denser development in a teleconference last week.

Two planning commissioners, two council members and several members of the city General Plan Advisory Committee joined city planners in listening to the conference at Patterson City Hall on Feb. 13.

The conference, dubbed "mastering density," explained the economics of density, while speakers also discussed ways to achieve density through design.

Rod Simpson, community development director for the city of Patterson, said the American Planning Association, which hosted the conference, has teleconferences on various planning topics. City representatives have debated the topic of density while discussing the city's general plan, making the topic particularly timely.

The GPAC, a group of appointed leaders, is about to resume work to come up with a draft version of the general plan, a document that serves as a guide for the city's growth.

Teleconference speakers included city planners in San Diego and Minneapolis and a couple of architects.

All of the speakers stressed making buildings attractive, showing in one slide how a skyscraper-like structure and a three-story brick building in a historical district could have the same density. They also advocated for placing cultural centers, parks and shopping areas within walking distance of homes. The end result is not only more efficient in terms of land, but also provides health benefits, such as [better air quality](#), fewer auto accidents and more physical activity, they said.

"I don't think anyone would advocate for density for density's sake," said Mark Hinshaw of Seattle-based LMN Architects.

Talking density: City officials say some concepts discussed at a teleconference on density last week already are being applied in Patterson. They include the use of village nodes in the approved but not yet built 3,100-home Villages of Patterson, shown in a planning drawing above. Courtesy art

Density does not always come cheap, speakers stressed.

Bill Anderson, director of city planning and community investment for the city of San Diego, noted that land and construction costs, parking and other fees can make higher-density projects an expensive endeavor.

If the market is right, sometimes those projects will pay for themselves, Anderson said. However, sometimes they require subsidies.

Jason Wittenberg, a planning supervisor for the city of Minneapolis, mentioned ways his city had helped with high-density projects, such as creating a written housing strategy and using city financing, housing revenue bonds and low-income-housing tax credits.

In terms of design issues, Anderson said there is nothing wrong with cities coming up with their own list of standards to ensure attractive dwellings.

Patterson City Councilman Dominic Farinha was among a handful of listeners nationwide who had questions answered by conference speakers. He faxed in a question about how speakers would introduce the concept of density to smaller communities that resist it.

"I don't go into a community like that talking about 60 units an acre," Hinshaw replied.

Instead, he said, planners should identify members of the community - grandparents, students, single mothers - who would prefer smaller homes.

"People recognize that those are our neighbors," Hinshaw said.

Simpson noted after the meeting that many of the issues addressed by the speakers applied more to urban areas. For instance, Patterson would never build 60 homes per acre these days.

However, he said, some topics that were discussed, such as walkable communities and a diversity of housing types, applied locally, too.

The existing general plan already has details about village nodes, areas that have schools, parks and commercial businesses within a short distance of homes. The approved 3,100-home Villages of Patterson - which is planned for northeastern Patterson - is an example of a project that uses that model, Simpson said.

He said he thought the topic of density would be useful to the city's elected and appointed officials, particularly as the GPAC is about to reconvene to discuss the general plan.

Farinha said he felt Hinshaw did a good job of answering his question, noting that there often is a negative stereotype about increased densities.

Patterson has people of various ethnicities and income levels, and the city needs to provide housing products to accommodate their needs, Farinha said.

Downtown happenings: Courthouse progress, Padre, trolleys

By John Cox, Californian staff writer

Bakersfield Californian, Thursday, Feb. 21, 2008

A timetable for construction of a federal courthouse near Central Park was among several updates delivered Wednesday at a breakfast meeting of the Downtown Business & Property Owners Association.

COURTHOUSE

Congressman Kevin McCarthy, R-Bakersfield, told the group that three courthouse feasibility studies are "on track" for completion this spring. With those done, he said, the project will go to bid this summer. A company will be selected by year's end to build the courthouse, and construction will start in spring of 2009, he said.

"That is the timetable," McCarthy said. "Our job is to hold people's feet to the fire."

The courthouse project has suffered several setbacks in recent years, frustrating downtown business owners who see it as a potential asset to the area.

MILL CREEK

City economic development director Donna Kunz took the podium to say the Mill Creek revitalization project at Central Park is “well under way.”

Progress she cited included word that an expansion of the project’s senior housing component is set to be finished within 18 months, completing the redevelopment of land bordered by the Kern Island Canal and 21st, R and 23rd streets. The expansion is set to break ground within about a month, she added.

THE PADRE

Kunz also provided new details on the development team now in escrow to buy downtown’s Padre Hotel and turn it back into a hotel. Without naming the developers, she said the group had met with city staff five times. She said the group owns two boutique hotels and other high-end properties.

The developer’s plans for the Padre, she said, include adding meeting space, establishing a restaurant on the ground floor and putting in a 24-hour lounge.

“To me this is the catalyst project” that will add momentum to the downtown arts district, Kunz said.

PARKING

When a member of the audience asked for an update on downtown parking, Kunz responded with a two-part answer. First, she said, the physical count of cars versus spaces does not justify the addition of new parking. Second, employers should ask their workers not to park on city streets but in the public parking structure at 18th and Eye streets.

City staff will continue to monitor downtown’s parking needs, she said.

“When the need happens, it’ll happen,” she said.

TROLLEYS

Some parking relief may soon come in the form of [an electric trolley providing free rides around downtown](#).

The association’s incoming chairman, Bob Bell, said Pacific Gas & Electric Co. has loaned the group a 10-year-old trolley that seats about 20 passengers. Following a new paint job and some work on new sidewalk benches, the vehicle should be available for “minimum duty” within three months.

Bell said he hopes to secure a second trolley as well, and run the two trolleys between hotels, transportation hubs and other downtown destinations.

Board limits fireplace rebates

Only gas-fueled devices will be eligible for rebate under new regulations designed by regional air quality district

By Denis Cuff, Staff Writer

In the Contra Costa Times and Tri-Valley Herald, Thursday, Feb. 21, 2008

Wood burners will be left out in the cold in a renewed program offering rebates to Bay Area homeowners who replace smoky fireplaces with cleaner heating devices, an air pollution board decided Wednesday.

In allocating \$400,000 to offer more rebates later this year, the Bay Area Air Quality Management District board restricted the payments to people switching to a gas-burning stove or fireplace insert for heating homes.

Wood-burners need not apply -- unlike in the first round of rebates, when EPA-certified stoves and fireplace inserts were eligible.

"It doesn't make sense to use public funds to subsidize the purchase of wood-burning devices when we're considering a rule to tell people not to burn wood on bad air nights," said Mark Ross, a member of the Bay Area Air Quality Management District board and a Martinez city councilman.

The district plans to hold more public hearings later this year on a proposal to ban wood-burning fires indoors on Spare the Air nights to reduce fine particles, which can cause lung and heart ailments.

The rebates are aimed at getting people to switch voluntarily to cleaner heating devices, officials say.

The district has not yet determined when it will offer the second round of rebates.

The first round of rebates lasted less than 48 hours last month, when all \$100,000 of rebates were snapped up by the public.

About 80 percent of those who qualified for the \$600 rebates used them to add gas-fueled fireplace inserts to their fireplaces, said Karen Schkolnick, an air district spokeswoman.

The gas inserts, which can cost \$3,000 to \$6,000 apiece, resemble a fireplace but have permanent logs heated by gas in a sealed, energy efficient system, according to Tonya Wofford, a board member for the Pacific branch of the Hearth, Patio and Barbecue Association.

Simple gas-heated logs in an open fireplace are ineligible for rebates.

Wofford said her group would have preferred that the air district also provide rebates for EPA-certified wood-burning stoves and fireplace inserts.

"Wood-burning devices can be very clean and efficient," she said. "We hope air pollution districts will not focus on the fuel, but on the appliances."

However, she added, few people asked for the rebates to install wood-burning devices.

In the next round of rebates, the air district will give first crack at those who signed up on a waiting list last month after the rebate money was exhausted.

"We want to give the first opportunity to those who were shut out," said Schkolnick, the air district spokeswoman.

After people on the waiting list accept or decline a rebate, the air district will publicly announce that it is offering more rebates to the general public.

FIREPLACE CHANGE OUT REBATES

Residents of nine Bay Area counties will be offered \$600 rebates later this year to convert open hearth fireplaces to cleaner home heating devices.

Eligible for rebates: gas-fueled fireplace inserts or stoves

Ineligible for rebates: fireplace inserts and pellet stoves, wood-burning stoves and decorative gas-heated fireplace logs

Timing: To be announced. Those who want to be notified of the rebate availability can contact the air district at sparetheair@baaqmd.gov or 415-749-4900.

Growth threatening growers

California's urban sprawl has translated into less land for cash crops, agricultural study finds

By Lisa Vorderbrueggen, Staff Writer

In the Contra Costa Times and Tri-Valley Herald, Thursday, Feb. 21, 2008

Unless California curtails its appetite for sprawl development, it will pave over 2.1 million acres of farmland in the next four decades and jeopardize the state's role as one of the nation's top food-growers, according to an American Farmland Trust study.

The new report, "Paving Paradise: A New Perspective on California Farmland Conversion," calls for the state to shift growth away from valuable agricultural lands, eschew land-gobbling ranchette development and accommodate new homes and businesses in higher densities.

The trust analyzed data from throughout California and found a loss of 538,273 acres of farmland to urban uses from 1990 to 2004.

An average of 9 people per acre occupy the newly developed areas, which is inefficient and unsustainable, according to Ed Thompson, California director for the American Farmland Trust.

Building at even moderately higher densities could protect as many as 1 million acres of farmland, he added.

"It's not just the amount of land, it's the quality of land being urbanized," Thompson said. "We are disproportionately converting our best farmland."

California is the nation's top-ranked food producer with nearly 27 million acres of agricultural lands, of which 9 million acres are considered high-quality farmland used for irrigated crops and orchards. The state's top five commodities, in terms of the dollar value of the products in 2005, include milk, grapes, nursery plants, almonds and cattle, according to the California Department of Food and Agriculture.

Most of the conversion of farmland to urban uses occurred in Southern California (including Riverside, San Diego and San Bernardino counties) and the San Joaquin Valley, the state's leading agricultural region. The valley lost almost twice as much farmland to urbanization than other parts of California, the trust found.

The Bay Area saw the third-highest losses at 74,473 acres during those 14 years,

Contra Costa ranked ninth among California counties, according to the report, with a loss of 18,052 acres of farmland, including land used for field crops and orchards in East Contra Costa County and livestock grazing in the San Ramon Valley. The more urbanized Alameda County converted 11,276 acres.

California has long struggled with where to build new housing, businesses and shops.

Historically, many of the Golden State's largest communities began as small settlements in the hollow of fertile valleys with ample water supplies.

But rapid population growth around the state pushed city boundaries outward into farms and ranchlands, fueling long commutes and protracted emotional, legal and political disputes over land-use decisions.

East Bay residents regularly oppose higher density development next door. They prefer new parks to new strip malls, and reject any development that might drive up traffic congestion, thereby pushing development further eastward.

And land costs are usually lower in rural areas where willing property owners welcome financial rewards after farming and ranching become a noisy, smelly and unwanted piece of the suburban landscape.

But better planning and financial incentives for communities could help reverse the political landscape, say planners.

In fact, there are some success stories.

In the past decade, Bay Area elected officials and community planners have promoted "smart growth" policies that redirect growth into existing cities and away from the urban fringe.

The Bay Area adopted a regional blueprint for smart growth. Contra Costa County cities adopted a plan called "Shaping Our Future," and there has been a strong push to preserve what's left of the county's agricultural core along its eastern edge.

Urban design that offers attractive, affordable neighborhoods that mesh with existing communities would reduce political opposition, said James Corless, a senior planner at the Oakland-based Metropolitan Transportation Commission.

The transformation will reap rewards, he said.

More compact, walkable neighborhoods reduce commute times and ease air pollution. They help improve the efficiency of the region's highways and transit services. They provide housing for the Bay Area's growing population and cut the demand for raw farmland in the Central Valley.

"The link between the need to house our workers in the Bay Area and the desire to preserve some of this really important farmland in the Central Valley is critical," Corless said. "We have the nation's breadbasket right outside our door."

online

To view the full American Farmland Trust report, "Paving Paradise: A New Perspective on California Farmland Conversion," visit

<http://www.farmland.org/programs/states/ca/Feature%20Stories/PavingParadise.asp>

Acres of farmland lost to new development from 1990 to 2004:

538,273 in California

74,473 in the Bay Area

18,052 in Contra Costa County

11,276 in Alameda County

Teens help El Dorado devise its 'green' plan

By Cathy Locke

Sacramento Bee, Thursday, February 21, 2008

A vision of a "green" El Dorado County that is pedestrian and bicycle-friendly, and promotes recycling, alternative fuels, water conservation and clean air, won praise from residents and elected officials.

But a proposed resolution prepared by the county's Youth Commission for adoption by the Board of Supervisors elicited more than pats on the back for the county's future leaders. Stressing that the document will guide county policy, the board called for several additions.

Corey Harkins, co-chairman of the commission's environmental, parks and recreation committee, said Supervisor Norma Santiago enlisted the group's help in October to create a policy that would encourage "green" reconstruction projects in the area burned by the Angora fire near South Lake Tahoe in June.

"It became a more broad statement of environmental vision in our county," Harkins said in presenting the resolution to the supervisors Feb. 12.

The Youth Commission, made up of teen representatives from throughout the county, advises the Board of Supervisors on issues that affect youths.

The environmental vision grew out of forums and meetings with individuals and groups including the Boys and Girls Clubs of El Dorado County and Lake Tahoe, the Washoe Tribe Youth Council, state Resources Agency officials and county staff members. Surveys were distributed to science classes at high schools countywide, and about 600 students responded.

Survey results showed that nearly 69 percent of students think the county lacks sufficient sidewalks, 71 percent believe cars and transportation have a "huge impact" on the environment, and 86 percent say they would support local government policy encouraging environmentally friendly building and transportation.

The proposed resolution sets forth goals in seven categories: transportation, traffic and transit; planning and construction; waste; energy; air quality; water quality; and education, outreach and awareness.

They include expanding transit opportunities, using clean-fuel vehicles for county employees, encouraging energy efficient development, promoting recycling and use of recycled products, providing incentive rebates to encourage replacement of older wood stoves with cleaner-burning devices, and linking community design with the long-term health of citizens.

The supervisors praised the resolution as a well-thought-out document. Board Chairman Rusty Dupray said it reflects many of the smart-growth principles in the Sacramento Area Council of Governments Blueprint program.

Supervisor Ron Briggs, who operates an organic farm, said, "I endorse what it says, but it has a huge something missing, and that's agriculture. If you protect agriculture in the county, you protect the environment."

Supervisor Helen Baumann said the resolution also should mention the need for sustainable forests and management practices that prevent catastrophic wildfires. Seventy percent of the county is in timber, she said.

"Renewable forests are a source of economic stimulus in the county," Baumann said.

Supervisor Santiago also recommended emphasizing the need for defensible space around homes in fire-prone areas.

Placerville resident Chris Alarcon said the resolution should include an analysis of the fiscal impact of the policies. Alternative energy sources typically are more expensive, he noted.

Others urged the students to pursue their vision. El Dorado Hills resident Noah Briel said El Dorado County has a reputation for being politically conservative, and "what you are saying is not very conservative."

But, he said, "Don't run away. Fight for what you want."

Former county Supervisor Bill Center recalled that he was on the board 15 years ago when civic leaders helped form the local Boys and Girls Club.

Saying he was pleased to see the effort come full circle, he praised the Youth Commission for producing a "place-based, amenity-loving resolution."

"So much of what we have in El Dorado County is place-based," Center said. "It can't be exported to China."

Briggs said none of the board's requests for additions was intended to diminish the Youth Commission's achievement in drafting the resolution.

"It's a function of what we say and what people read. We're giving direction to the county," he said of providing a document that is as complete as possible.

Commission member Colleen Moore said, "We understand that this is like a stepping-off place. It will develop."

Commission members said they would return with a revised resolution Tuesday.

Harkins said he expects other county commissions and agencies to use the resolution to develop policy and "to re-evaluate what is our environmental position in the county."

State attorney general wants 'cool' California Brown to convene workshops on how to reduce global warming

By Steve Geissinger, MediaNews Sacramento Bureau
Tri-Valley Herald, Thurs. Feb. 21, 2008

SACRAMENTO - Attorney General Jerry Brown is taking the global warming enlightenment skills he honed in the Bay Area across sprawling California today - a move supporters such as San Jose's mayor said will meet resistance.

Brown's aides told MediaNews he will announce he is convening voluntary regional schools for California's more than 500 elected county supervisors and city mayors to advocate tough actions such as new transportation impact fees and costly energy-efficiency as a way to reduce global warming.

"These workshops launch the first statewide movement to reduce the negative impact of local planning decisions on global climate," Brown said in a letter.

Though attendance is not required, Brown has legally leaned on 23 individual local entities for greenhouse gas reduction. In the East Bay, he negotiated an agreement with ConcoPhillips on specific greenhouse gas reduction strategies.

"California must adopt the necessary changes that will encourage economic growth while reducing greenhouse gases," he said. "This difficult transition from our current escalating dependence on fossil fuel demands that cities and counties encourage maximum building efficiency and innovative land-use."

Brown is sending more than 500 letters to elected leaders in 58 counties and nearly 200 cities, with populations of 50,000 or more.

As charter members of the fledgling national "cool" cities and counties campaign, San Jose Mayor Chuck Reed said in an interview that San Jose and its neighbors are pretty cool nowadays in both senses of the word.

Reed said Alameda, Santa Clara and Contra Costa counties and their cities are leading landmark local government efforts to reduce greenhouse gas emissions by making land-use decisions with that problem in mind.

"We're ahead of the power curve," Reed said. "We're hoping the rest of the state will catch up with us."

"But I'm sure there's a lot of people, who haven't given it much thought, that are going to have to focus on the issues," he said. "There will be plenty of resistance."

Brown's classes will center on complying with the state's Environmental Quality Act - a highly controversial law known mostly for stalling development during spring sessions in Oakland and other cities.

The state's Global Warming Solutions Act, Assembly Bill 32, requires California to cut greenhouse gas emission to 1990 levels by 2020.

The act requires local agencies to analyze and reduce greenhouse gas emissions from projects with significant impact, including regional transportation and development plans.

Meanwhile, local government will make hundreds, even thousands, of planning decisions that will have decades-long implications.

Reed said cities are looking for low-cost means of meeting goals and banding together regionally to find answers.

Among all Bay Area counties, Brown's home county of Alameda was the first to join the official national "cool" cities and counties registry.

"We see the Cool Counties partnership as a key step toward local government leading the nation on reducing greenhouse gas emissions and preparing for climate change," Alameda County Board of Supervisors Chairman Scott Haggerty said in a statement.

"We're working with our cities through the Alameda County Climate Protection project to address climate change within our own county."

Global warming inspires enterprising solutions

By Paul Davidson, USA TODAY

Thursday, Feb. 21, 2008

The phone-booth-size machine humming away in a Tucson lab may look like a science-fair project on steroids. Its inventors, however, say it's a potent new weapon in the battle against global warming.

Its task is elegantly direct. The 9-foot-tall device, encased in see-through plastic, scrapes the chief global warming gas - carbon dioxide - right out of the atmosphere. As air wafts through, CO₂ sticks to large chemically coated panels while oxygen and other innocuous gases breeze by. The carbon inhaler's developer, Global Research Technologies, is among hundreds of U.S. companies scouring for ways to reduce the world's greenhouse gas emissions and cash in on federal requirements anticipated by 2010 to combat global warming.

"It's a gold rush," says Peter Fusaro, head of consulting firm Global Change Associates.

The CO₂-busting industry is exploding as federal legislation to cap the emissions of utilities and other industries grows more likely, offering the prospect of huge profits. Nearly 400 start-ups are operating 600 carbon-mitigation projects in the USA, with the number of companies set to triple the next two years, says consulting firm Point Carbon.

Their product? Carbon offsets. One carbon offset, or credit, equals a ton of CO₂ removed from the air.

Hedge funds and investment banks are starting to trade offsets like stocks and bonds, betting they could soar in value if greenhouse gas caps are imposed. JPMorgan (JPM) expects to buy and sell hundreds of millions of offsets this year, up from tens of millions last year.

For several years, entrepreneurs have had modest success selling credits to corporations and consumers who want to be good citizens and offset the carbon that's produced when they drive cars or use electricity.

Many are deploying tried-and-true techniques such as burning the noxious emissions of landfills and cow manure and restoring forests. Others are testing grander but more controversial strategies, such as growing carbon-absorbing plankton in the South Pacific.

The voluntary market for U.S. offsets is still meager, though it more than doubled last year to \$150 million to \$200 million, says research firm Ecosystem Marketplace. In Europe, which has complied with mandatory carbon limits since 2005 under the Kyoto treaty, the offset market hit \$10 billion last year. Sales in the USA, the world's biggest carbon emitter, could be as high as \$175 billion by 2020 if a federal cap is approved, says research firm New Carbon Finance.

Such legislation has grown all but inevitable. Although President Bush opposes carbon caps, Democratic presidential candidates Hillary Clinton and Barack Obama, and Republican front-runner John McCain all favor curbs. Many analysts expect a law to be passed by 2010 and caps to start as early as 2012.

Under a bill that cleared a Senate committee in December, global-warming discharges by major polluting U.S. industries would be cut 71% by 2050. A cap and trade system would be created to spur progress. Utilities, oil companies and manufacturers that exceed their emissions caps would buy allowances - which don't yet exist - from others in those industries that fall under their limits. Unlike an offset, which is a ton of carbon extracted from the air, an allowance lets a company emit a ton of CO₂.

The number of allowances would fall over the years, driving up prices, as the government lowers maximum emissions.

Costs come down on consumers

The two carbon currencies - allowances and offsets - will likely merge. The leading proposal in Congress would let companies offset up to 30% of their emissions by buying carbon credits. In

other words, instead of cutting its own pollution or purchasing allowances, a utility could buy offsets that fund carbon reduction elsewhere in the USA. That would be a boon for offset suppliers, which could sell credits at much higher volumes and prices than they do now.

Today, offsets cost \$3 to \$8, Evolution Markets says, but they're expected to track the prices of allowances as those enter the market. Allowances are expected to cost at least \$25 by 2020 and \$60 by 2040.

Those costs largely would be passed on to consumers. Electric rates in some areas could rise up to 45%, and gasoline prices could go up 25 cents a gallon by 2020 under some forecasts.

If allowance prices get high enough, it will become economical for emitters to make permanent fixes, such as adding pollution-cutting equipment to a carbon-belching coal plant.

Yet some frown on offsets. David Doniger, a policy director for the Natural Resources Defense Council, fears excessive use of offsets early in a cap-and-trade program could encourage polluters to put off investments to slash their emissions.

Offset suppliers face other uncertainties that could torpedo their plans. It's unclear what types of projects would qualify for offsets and whether credits that predate a new law would be eligible. Officials also would examine whether a project would have gone ahead even without offsets, likely disqualifying it for credits.

Despite the hazy outlook, emitters are starting to buy offsets in the hope they'll be able to use them to meet federal mandates. In the largest such deal, American Electric Power, (AEP) the nation's biggest coal-fired power generator and greenhouse gas emitter, agreed last year to purchase 4.6 million carbon offsets from Environmental Credit from 2010 to 2017.

Environmental Credit will generate the offsets by burning the methane produced by the manure of 400,000 cows at 200 farms. Although burning methane produces CO₂, methane is 21 times more harmful to the atmosphere. Livestock manure accounts for 6.6% of U.S. greenhouse gas emissions.

By purchasing the offsets in future years, when carbon caps are likely to be in place, AEP thinks the Environmental Protection Agency will be more likely to approve them. And by inking a deal now, the utility seeks to lock in lower prices.

"We're firmly of the mind there will be some kind of global-warming program in the not-too-distant future," says AEP Chief Executive Michael Morris. "To that end, we're trying to build a bank of credit."

Morris would not say what AEP will pay for the offsets. But Environmental Credit executive Derek Six says it's more than today's \$5 price of an agricultural offset but less than the roughly \$20 tab projected in the next decade under a federal program. Environmental Credit is spending \$25 million to buy equipment for the AEP project and will share offset revenue with farmers.

Lofty environmental goals

Others are eyeing bigger carbon bounties. Blue Source plans to capture the carbon dioxide spewed by a Kansas fertilizer plant and sell it to petroleum fields to boost oil output. It's spending about \$70 million on equipment to corral the carbon as well as on pipelines to send the gas about 100 miles to the oil fields. Blue Source already has five similar setups in the USA.

It will snare about 650,000 tons of carbon a year from the Kansas plant, the equivalent of removing 113,000 cars from the road. At today's offset prices, Blue Source will recover its investment in about five years. But projected prices in the next decade under a federal cap would halve the payback period, says CEO Bill Townsend. More than half of the offsets Blue Source sells go for a premium because they're for post-2010 projects that emitters hope will meet federal caps, up from 10% six months ago, he says.

"It wasn't a bad business before, but it's not the business (a federal cap) will bring us," Townsend says.

Some start-ups are grounding their businesses in Mother Earth. Equator Environmental plans to restore forests, at a cost of about \$1,000 an acre. Deforestation accounts for about 20% of the world's global warming gases.

With an acre of trees swallowing just 2 to 8 tons of CO₂ each year and offset prices under \$10, the business is barely profitable until a cap brings higher prices, says CEO Jeff Bortniker. Meantime, Equator plans to harvest trees for extra revenue, planting new ones to keep the forest population in balance.

Still others are tinkering with technologies they say could offer breakthroughs under a federal system that pays top dollar for carbon reductions. The carbon-absorbing machine being tested in Tucson was funded by Gary Comer, the founder of Lands' End (SHLD) who was moved to combat climate change in 2001, when he was able to sail the Arctic Ocean without the aid of an icebreaker. Comer died in 2006.

If deployed in large numbers, the carbon-filtering machines could slash new emissions and vacuum decades-old gases out of the air, says Allen Wright, president of Global Research Technologies.

Wright envisions machines the size of 40-foot-long shipping containers that could be trucked to vast isolated stretches where carbon would be buried when technology to do so is available.

With each device able to remove a ton of carbon a day, about 30 million units could scoop up 10 billion tons a year, or about a third of the world's emissions, he says. Costs to capture carbon initially would be about \$250 a ton, far more than the projected \$100 per ton price of U.S. allowances in 2050. But Columbia University geophysicist Klaus Lackner, who teamed with Wright to invent the machine, says mass production could drive prices to \$30 a ton.

There are skeptics. Electrodialysis, which separates the carbon from the panels, uses so much electricity that it produces nearly as much carbon as it removes. Capturing and storing CO₂ from the biggest single source - coal plants - as researchers are working to do, would be far more efficient, says Gary Rochelle, professor of chemical engineering at the University of Texas. "These kinds of projects are a terrible distraction," he says.

Lackner says the CO₂ separation instead could be driven by an electricity-free thermal process.

Another carbon-buster with big ideas is turning toward the open seas. Climos wants to dump up to 1,000 tons of pulverized iron over a patch of ocean as large as 15,000 square miles in a bid to germinate plankton. Iron ore has been shown to promote the growth of the microscopic ocean algae, which inhale as much CO₂ in six months as a forest consumes in decades.

Yet critics, such as Rutgers University biophysics professor Paul Falkowski, say the plankton also releases some carbon as it decomposes before it sinks to the ocean bed. As it decays, it produces nitrous oxide, which is far more damaging to the atmosphere than carbon, Falkowski says.

Climos CEO Dan Whaley, co-founder of travel site GetThere.com, agrees such risks must be studied but says early research suggests the carbon absorbed exceeds toxic emissions enough to make the project viable. If such seedings are repeated annually for 25 years, they could suck in 1 billion tons of CO₂, he says.

With each seeding costing several million dollars, Whaley says a large-scale program would be feasible only under government regimes in the USA or Europe that provide for high offset prices. Yet neither the European system nor proposals in Congress permit ocean-based offset projects. Whaley believes such constraints could be lifted after demonstration projects prove the technology.

"If it works, then it's a large solution," Whaley says. "We need all the horsepower we can get because the problem is way bigger than we imagined."

[Bakersfield Californian, Letter to the Editor, Thursday, Feb. 21, 2008:](#)

Mass transit cannot wait

Bakersfield cannot wait for dense development before we increase bus service and plan for future light rail. Since many people move here to buy as big a home on as large a lot as they can afford, it will take generations until we become as dense as experts say we must be in order to support mass transit.

Here are reasons we cannot wait: Our cars pollute our air basin, although much less than they used to. We import over half our gasoline, some of it from unfriendly nations.

As the supply of easily obtained oil decreases as predicted and the cost of production climbs, we may not find a fuel to replace gasoline. Alternate fuels form carbon dioxide and decrease food supply or promote global warming by replacing old-growth forests and their rare creatures -- like orangutans -- with palm oil or other plantations.

We should not continue to destroy farmland in order to build free-standing homes on large lots. Nor should we increase taxes to compensate for demolishing homes or businesses in order to widen or connect roads.

This is being considered for the Westpark neighborhood in order to connect Highway 58 to the future Kern River Parkway. The plan is to connect Highway 58 near Washington Street to Highway 178.

We are also considering widening Highway 99 and widening 24th Street. Bus lines and light rail stops attract dense development.

Decision-makers should consider all of us when "not in my backyard" folks protest apartments near them.

Arthur Unger, Kern Kaweah Chapter of the Sierra Club, Bakersfield

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