

Toxinformer

Environmental Health Coalition

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Summer 2006



It's time
for a
Green
Energy
Future

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ENVIRONMENTAL HEALTH COALITION

*Fighting Toxic Pollution
Protecting Public Health
Promoting Environmental Justice
1980-2006*

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EHC

Organizing for Justice

ENVIRONMENTAL HEALTH COALITION is dedicated to environmental and social justice. We believe that justice is achieved when empowered communities act together to make social change. We organize and advocate to protect public health and the environment threatened by toxic pollution. EHC supports efforts that create a just society which foster a healthy and sustainable quality of life.



THE BORDER ENVIRONMENTAL JUSTICE CAMPAIGN works to reduce toxic pollution caused by maquiladora industries in Tijuana and to promote fair trade and globalization for justice



THE CLEAN BAY CAMPAIGN works to cleanup, restore and protect San Diego Bay and bay tidelands from industrial and Naval pollutants and development activities



THE TOXIC FREE NEIGHBORHOODS CAMPAIGN organizes in communities of color to advocate for the prevention of toxic pollution from industrial and mobile sources.



THE CAMPAIGN TO ELIMINATE CHILDHOOD LEAD POISONING works to eliminate sources of lead exposure to protect children's health.

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Power Plant Replacement – One Chance to Do It Right

Energy expert Albert Einstein once said, “We can’t solve a problem on the level that it was created.” Right now decision makers and the public face a unique moment to solve multiple problems created by the South Bay Power Plant in Chula Vista.

For the past 46 years, the South Bay Power Plant (SBPP) has been a hulking industrial eyesore on the Chula Vista Bayfront. It has devastated the sensitive San Diego Bay marine environment, polluted downwind communities, and created significant blight that has frustrated quality development. Its time has come to an end. The good

news is that over the next few months the public may have an opportunity to set a clear course that will remove the plant.

Although there are disagreements on a lot of things in the South Bay, all agree that we want to get rid of the current plant. The more difficult question is ‘what is the cleanest, most secure and sustainable way we can replace the energy produced by the power plant.’

As a community, we will make this decision only once. Together, we must find a solution that makes sense for the next 50 years.



LSPower recently purchased the SBPP and is now preparing to apply to the California Energy Commission (CEC) for a replacement plant by June 30. It is also negotiating a lease-option for a site with the Port. So far, only one option has been discussed—another, large fossil fuel burning plant on the Bayfront to replace the old one.

When short deadlines drive a decision-making process, public participation invariably shrinks. The problems created by a fossil fuel plant cannot be adequately resolved by staying the current course. Environmental Health Coalition (EHC) thinks we can do better than that.

The size, efficiency, cooling system, and loca-

tion of a fossil fueled plant all significantly increase, or reduce, its impacts on our region. The current proposal proposes the use of air or dry cooling to cool the turbine instead of water. This is superior technology and we strongly support its use in any option.

However, locating a single energy replacement plant directly upwind of densely populated western Chula Vista, where childhood asthma hospitalizations rates are already 20% higher than the county average, will result in avoidable impacts to air quality and community health. Inclusion of duct-firing reduces efficiency and increases emissions.

The size of the replacement generation plant matters too. In an EHC-com-

In this special issue of the *Toxinformer* we examine the environmental health impacts of the South Bay Power Plant and fossil fuels and explore options to meet our energy needs in an environmentally sustainable manner. Most importantly, we are asking you to *Take Action* to make these changes a reality.

missioned report by Environ, Inc., a screening-level computer model demonstrated that a hypothetical large plant would produce an incremental increase in the level of particulate pollution that would be 3 to 4 times greater than the increase from a smaller plant. The geographic area impacted by the higher concentration of pollutants would also be many times larger.

We have a once-in-a-lifetime opportunity to look at energy differently for our region. We can't all be Einstein, but this is our chance to go to a new level related to our energy future. We should take the time to get it right. We owe it to our future.

We are calling on the Port and the new owners, LSPower, to engage the public in a discussion that will result in the cleanest solution possible.

A new solution should include:

Meaningful public involvement. Decisions about the replacement of the South Bay Power Plant should involve the most impacted community—downwind residents. Many EHC members live and are raising their families directly downwind of the power plant. All families must be included in the decisions regarding how to replace it. A comprehensive public participation process should be started now, before the application to the CEC is submitted, to avoid subjecting the public to the expensive, quasi-judicial licensing process.



Focus on Renewable Energy: The current plant should be replaced with a comprehensive energy strategy that will expand the region's renewable energy supply. This is consistent with the State's "preferred loading order" of energy sources. The process for determining this strategy should be launched by the Port, the City of Chula Vista, and the public immediately.

Commitment to Bay protection. Any replacement plant must use air, or 'dry-cooling' instead of water.

Implement Community Choice Aggregation: The City of Chula Vista should implement Community Choice Aggregation and other similar programs, in a manner which would improve the City's ability to expand existing renewable energy programs and create new, high quality, green-collar jobs.

Commitments to green building standards. The Port District, the City of Chula Vista, and SANDAG should adopt building standards that require that all new buildings, developments, and retrofits be designed to be 30-50% energy independent.

Minimum possible impacts from fossil fuel generation. If gas-fired generation is required, then alternatives need to be considered that may include a smaller combined cycle plant on the Bayfront and/or evaluates other locations such as Otay Mesa, Otay Landfill, or Miramar for some portion of the generation needs.



The High Cost of the Status Quo:

Why we must move away from Natural Gas

When it comes to energy, San Diego is at a crossroads. If we want to make good and fully informed choices about our energy future, we must consider the true costs and sustainability of the electricity we use. What we pay every month to SDG&E simply doesn't cover the public health, environmental, and economic costs associated with our energy consumption.

Our energy choices have impacts that range from the local to the global. At a local level, when we rely on gas-fired plants in communities, we are targeting a small group of people to bear the health burdens from pollution created by energy production that we all use. Too often, these plants are located in areas where communities have the least political power to resist such projects, creating a pattern of environmental injustice. The burning of fossil fuels is an undisputed cause of global warming. Rising sea levels, warming oceans, droughts, increased spread of disease, are only some of the very costly consequences of global climate change.

Over-reliance on Natural Gas puts the region at risk

In the San Diego area, most of our power plants burn natural gas. Fine particulate matter (PM) pollution emitted from natural gas plants has been linked to a number of health hazards, including increased rates of asthma and lung disease, decreased lung function, heart attacks and premature death. Particulate matter that is 2.5 microns or less (PM_{2.5}) is especially of concern, as these particles are more likely to travel deep into the lungs where they can seriously damage lung tissue. They are so small that they can get into the bloodstream through the lungs, and carry pollutants that are adsorbed to the particles throughout the body.

We put ourselves and our economy at risk if we continue our over-reliance on a single fuel source, natural gas, for our energy supplies. Natural gas supplies are limited, and prices are highly volatile, which exposes our region to potential interruptions in supplies and sharp rises in electricity prices.

Over-consumption of energy leads to more consumption

Our appetite for energy is voracious. California is the 10th largest energy consumer in the world. Compared to our neighbor, Mexico, the U.S., with 3 times more residents than Mexico, consumes 20 times more electricity and 11 times more oil and gas. Spending on electricity in California could increase by as much as \$2 billion by 2020 as a result of warmer

temperatures caused by global climate change.

Nuclear is neither clean nor safe

The risks and problems associate with nuclear power are even worse. Locally, we use power from the two nuclear reactors at San Onofre Nuclear Generating Station (SONGS)—an aging nuclear power plant. With nuclear power, there is the omnipresent risk of an accident at the reactor or in the on-site stor-

Nationwide, fine particulate pollution from power plants is estimated to be responsible for over 20,000 deaths per year, nearly 40,000 heart attacks, and over 3 million lost work days.

age pools. Even a small accident could ruin San Diego's tourist economy, not to mention our health. And, in spite of 40 years of looking, there is still no place to store the 70,000 tons of high level radioactive waste generated by the nation's 103 nuclear power reactors. The much touted benefit of nuclear as a non-greenhouse gas is a myth: uranium mining, reprocessing, and transportation of fuels and wastes, all burn fossil-fuel.

Natural gas and nuclear power are energy dead ends for San Diego.

Green Energy in San Diego

Fortunately, we have a choice. What we need is a "proliferation" of Green Energy on our rooftops and in our communities. When it comes to green energy, San Diego is far from reaching its potential. The region's 'peak' power demand is about 4000 MW. Currently, we have only 13 MW of solar photovoltaic (PV) capacity installed. But, a recent study by the San Diego Regional Renewable Energy Research Group (www.renewablesg.org) estimated that the San Diego Region's *technical* potential for residential and

commercial solar power production was over 4,000 MW. The study also estimated a technical potential for wind energy resources in the San Diego region of about 1400 MW. Solar concentrators and biogas were estimated to have a combined capacity of nearly 3000 MW in San Diego County.

San Diego can meet its renewable energy potential easily if we take steps to create a demand for it. A number of significant policy decisions need support at all levels of government. At the national level, we must prioritize funding to support the renewable energy research and devel-

opment. At the state level, the passage of legislation to increase the utilities' net metering cap and other pro-renewables programs will be essential to increase our investment in solar energy. Locally, building standards must be strengthened to require energy sustainability in construction.

When we consider the true costs of our current dirty energy supply and our voracious energy appetite, it is clear that we will be better off as a region if we make significant investments, now, in renewable energy and energy efficiency. It's time for us to grow green energy in our own backyards.

Sunset the Sunrise Powerlink

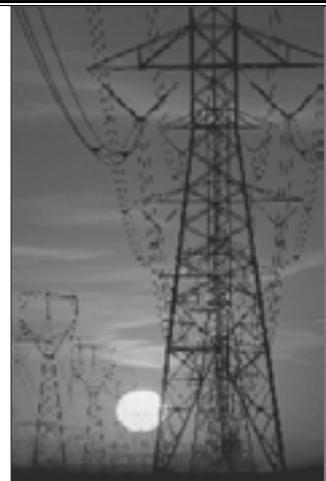
The Sunrise Powerlink is a massive, 130-mile electric transmission line that San Diego Gas & Electric (SDG&E) is proposing to construct from Imperial Valley to Coastal San Diego, crossing the Anza-Borrego Desert State Park. EHC joins the Center for Biological Diversity, the Sierra Club, and numerous community groups in opposing the Powerlink because it places the burden of environmental and health effects of energy generation and transmission on the shoulders of

communities along the transmission line and power plants where regulations may offer less protection.

The Powerlink is not the panacea that SDG&E claims it will be. It will not increase energy security or economic sustainability. The Powerlink's potential for transmitting electricity from renewable sources is dwarfed by its potential for transmitting energy from Sempra's fossil fuel burning plants in Arizona and Mexico.

It is more than just an

expensive, bad idea. The Powerlink will actually hamper the development and use of renewable energy in our region. Billions of dollars invested in the transmission line equals billions **not** invested in a local clean energy programs. When we import energy from other regions, we are exporting dollars and jobs from our local economy. If SDG&E is serious about meeting the 20% renewables goal required by state law, it should pursue local clean energy projects first.



The Powerlink will set a disastrous precedent for our energy future. It threatens to make our region even more dependent on unaccountable corporate interests.

We should sun-set the Sunrise Powerlink.

Crossborder Energy Justice

Foreign-owned energy facilities in Mexico that mainly serve the U.S. market are “energy maquiladoras,” analogous to the foreign-owned assembly factories that boomed along the border with the 1994 North American Free Trade Agreement. As demonstrated in the following examples, most of the advantage goes to the U.S.; most of the harm is done to others. Environmental Health Coalition calls for a cross-border energy policy that is just and sustainable.

Proposed Liquid Natural Gas (LNG) terminals along Baja California’s coastline

Currently under construction 14 miles north of Ensenada, Sempra Energy’s LNG terminal Energía Costa Azul has generated protests by impacted communities. The terminal will receive gas from fields in the Far East and re-gasify the fuel for distribution

on North America’s west coast. This project will severely impact countries in the Far East, depleting reserves, causing environmental damage, and providing little economic benefit to developing countries. Concerns include potential catastrophic accidents or sabotage, higher prices for consumers due to processing costs, habitat destruction, incompatibility with local tourism and the fishing economy, and environmental and visual disruption.

Another LNG plant that Chevron-Texaco proposed on the Islas Coronado, within sight of Tijuana and San Diego, has been halted pending the outcome of a petition filed with NAFTA’s Commission for Environmental Cooperation regarding harm to habitat.

Mexicali Power Plants

Two new Sempra Energy and InterGen power

plants were built in 2002 in Mexicali. Three-quarters of the electricity they generate goes to U.S. consumers. Yet in Tijuana, as EHC has documented, workers and their families live in squatters settlements without safe access to electricity.



Informally tapped electricity in maquiladora workers’ community in Tijuana.

The increased pollution from the new Mexicali plants is also of concern. A lawsuit filed by environmental groups seeks to require such plants along

the border to adhere to U.S. pollution standards.

The proximity of the two Mexicali plants to the planned Silicon Border Industrial Park for semiconductor manufacturing, and the plan to build another power plant there dedicated specifically to supplying manufacturers in the high-tech, notoriously toxic industry, raises the issue of cumulative impacts to workers and their families.

The lack of accountability by the maquiladora industry along the border and their history of environmental violations and worker justice are well-documented. Building facilities across the border largely to supply the U.S. consumer market – whether maquiladoras, power plants or LNG terminals – perpetuates the free trade regime that puts corporate profits first, and undermines workers’ rights, public health and the environment.

TAKE ACTION

1. Volunteer...
2. Canvass...
3. Phone Bank...
4. VOTE!

The November ballot will likely include major proposals to promote clean energy. Get involved with EHC to get California going in the right direction.

Call Georgette Gómez at (619) 474-0220 ext. 104 for more information on EHC’s Voter Empowerment Project

Stop Cooling that Kills

One of the most destructive aspects of the South Bay Power Plant that blights Chula Vista's bayfront is its use of San Diego Bay water to cool the turbines. This process, known as "once-through cooling" or OTC, draws in up to 400 million gallons of water from sensitive San Diego Bay daily. The water is chlorinated, sterilized, dechlorinated, heated to levels high enough to be toxic to marine organisms, and then discharged back - directly into San Diego Bay.

As a result, the local marine life habitat is devastated. Every year the SBPP cooling process kills up to 50% of some bay species depending on the species and the life stage, including a large number of anchovies and small fishes that are relied

on by the many fish-eating nesting birds in the adjacent San Diego National Wildlife Refuge.

Many studies, even those conducted by the power plant owners themselves, have demonstrated massive impacts to the marine life in San Diego Bay. The super-heated water discharged from the plant

- has reduced the viability of up to 104 acres of the critical eelgrass habitat — important for birds, turtles and fish;
- has reduced the number and diversity of species; and
- has limited the reproduction of halibut.

This is not just a problem in San Diego Bay. The June 2005 staff report issued by the Cali-

fornia Energy Commission acknowledges that California's "coastal power plants that use seawater for once-through cooling are contributing to declining fisheries and the degradation of estuaries, bay and coastal waters. These power plants indiscriminately 'fish' the water in these habitats by killing the eggs, larvae, and adults when water drawn from the natural environment flows through the plant (entrainment impacts) and by killing large adult fish and invertebrates that are trapped on intake screens (impingement impacts)."

It is time for this technology to be phased-out.

There are 21 power plants in the state that rely on this antiquated technology in spite of the fact that other options exist. The

State Lands Commission and the Ocean Protection Council have already adopted resolutions urging the State to greatly restrict its use. The next step will be for the State Water Resources Control Board to adopt a policy related to the future of once-through cooling.

EHC strongly supports a strong phase-out policy. Local officials including Chula Vista Mayor Steve Padilla and San Diego City Councilmembers Donna Frye and Kevin Falconer are on record urging a phase-out of this technology. It is time that we set a schedule for the end of use of these archaic systems and to begin to heal our coastal ecosystems from the damage that decades of misuse has caused.



Please write to urge the State Water Resources Control Board to quickly bring an end to the destructive "once through cooling" technology. Comment letters can be emailed to State Board Chair, Ms. Tam Dudoc and Boardmembers at commentletters@waterboards.ca.gov or mailed to:

**State Water Resources Control Board
1001 "I" Street
Sacramento, CA 95814**

Imagine...



...a solar panel on every roof in San Diego, dual panes in every window,



...solar film on every shopping center, a 'grove' of stand-alone panels shading cars in every parking lot,



...every efficiency and solar project installed by a worker who is well-trained and well-paid,

...imagine a burgeoning renewable energy sector in the local economy. What we can imagine we can create.

Building Today for a Secure Energy Future Tomorrow

Every day the papers carry news of another major development project proposed in our region. San Diego, Chula Vista, and National City are all currently updating plans that will guide development for the next two decades. Now is the perfect time for local governments to adopt policies

that will set a new standard for energy independence for our region. It is time for meaningful requirements for sustainable energy measures in building construction.

Buildings are the major source of demand for energy and materials that produce by-product green-

house gases. Promoting sustainable or green building design and construction can reduce the impacts of buildings on the community and the environment.

While there are minimum state standards, like Title 24 for energy efficiency in construction, we can, and should, do better. EHC

is advocating that all new development be at least 20% more energy efficient than Title 24 conservation standards and at least 30% energy independent. This can be accomplished by taking advantage of local solar resources, and incorporating passive and natural sources of heat, cooling, ventilation, and light.



Urge your city to require all new and retrofit building construction to meet the Sustainable Energy Standards of 20% over Title 24 for energy efficiency and 30% energy independence for every building. Urge them to adopt a rule that for every square foot of new building, an equal amount of existing buildings must be retrofitted to the new energy standards.

Something New Under the Sun: Community Choice Aggregation in Chula Vista

The City of Chula Vista has a strong reputation for its leadership role in energy policy. In 1998, Chula Vista Councilman Jerry Rindone made history by signing the Kyoto Protocol making the City of Chula Vista a signatory to the treaty. The City has adopted energy efficiency standards for their own buildings 20% more stringent than state standards, reduced solar permit fees to facilitate solar panel installations, and adopted a significant city-wide Carbon Dioxide Reduction plan. In May, 2004, the City of Chula Vista took another historic step by being one of only two cities in the state, and the only City in the San Diego region, to pass an ordinance to imple-

ment Community Choice Aggregation (CCA).

In July, 2005 the full City Council joined members of the San Diego Regional Apollo Alliance to urge the California Public Utility Commission (CPUC) to set rules for implementation of CCA that would provide incentives for Chula Vista to pursue the program. The result was a victory – the CPUC ruled that cities, not large energy companies or the CPUC, should control how these programs are run.

What is Community Choice Aggregation?

Community Choice Aggregation (CCA) is the legal framework established

by the State Legislature in 2002 by which a city or county may purchase electricity for its constituents and deliver it over the transmission lines operated by the local private utility. Any city or county can invest in its own generation capacity like solar panel installations or a wind farm, or can contract for power with a third-party provider. Consumers within the jurisdiction can choose to stick with their current electricity provider, or have their Community Choice Aggregator (in this case the City of Chula Vista and any other governmental partners) purchase electricity for them.

EHC is a strong supporter of CCAs because they give us our best op-



portunity to meet our energy needs, reduce air pollution, create true energy security, and to grow quality green collar jobs in a green energy economy.

Now it is time to move forward to implement CCA in Chula Vista

It is important that the Chula Vista take the next step by developing an Energy Implementation Plan. This plan will provide the 'business model' and a road map for how a CCA would work.



TAKE ACTION

1. Call.....
2. Email.....
3. Write
4. Attend.....

Write to the Mayor and City Council of Chula Vista and urge their support to establish the community task force to develop the Energy Implementation Plan for CCA in Chula Vista. Let them know that you want an energy implementation plan that places highest priority and promotes renewable energy in the city, especially solar.

**Chula Vista Mayor and Council Office
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 91910**