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**Agenda regarding ways to improve energy and water efficiency and reduce GHG in San Diego, state, and country, and claim leadership role in 21st century.**

**Thoughts of an environmental lawyer.**

1) **CITY/COUNTY EFFORTS TO INSTALL AND ENCOURAGE PHOTO-VOLTAICS.**

- \* City/County/State secure sufficient bonds to install photovoltaic (PV) systems to maximum extent practical on all practical government property, including parking lots, rooftops, roads, etc.
- \* Bonds paid through savings in future energy bills - avoided costs. No tax.
- \* Consider alternative/additional "funding" mechanisms, as necessary or as desirable, such as a third-party provider capitalizing the costs of, and servicing, PV systems.
- \* City/County/State would make a truly visible statement toward cleaner air; substantially reduce greenhouse gases (GHG); anticipate AB32 requirements to reduce GHG, get ahead of the curve, surpass state goals; create new jobs; reduce foreign oil dependency; take action before other cities decide to take a similar route after which materials and labor become more scarce.
- \* Coordinate with City/County/State to move in same direction.
- \* Coordinate with CalTrans to install PV along freeway corridors.
- \* Cover state aqueduct with PV to reduce evaporation and power movement of water.
- \* Encourage a race in residential installation of PV. Reward each block that becomes energy independent (e.g., where every resident has installed adequate PV) by placing that street at the top of the list for undergrounding of utilities by SDG&E or other suitable reward (e.g., repaving of street if in disrepair).

2) **GOAL OF ENERGY INDEPENDENCE.**

- \* Make San Diego County energy independent.
- \* Create energy coop using solar and wind turbine farms in desert/mountains areas that can grow and serve as off-site mitigation.
- \* Do not invest in the Sunrise Powerlink but in our own energy solutions.

SDG&E does not profit from energy sales but from a return on capital investments such as transmission lines. The state's ratepayers share the cost of transmission lines, meaning San Diego's share is only about 10% of the projected \$1.3 billion Powerlink. So the state pays for the cost of the line. The little known truth, however, is SDG&E, on top of that return, then gets another roughly 11% *annual return on their investment for the life of the project, about 30-40 years, ultimately costing San Diegans about \$7 billion.* Put \$1.3 billion into local solar and other renewables and efficiencies, and we will have cleaner, more dependable source of energy for years at a fraction of the cost of the Powerlink. Learn more about the facts and how we can reduce greenhouse

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gases from power generation 50% by 2020 in "San Diego Smart Energy 2020," authored by Bill Powers, P.E., October 2007, funded by the San Diego Foundation's Environment Program, at [www.sdsmartenergy.org/smart](http://www.sdsmartenergy.org/smart).

3) **CLEAN, GREEN STATEMENT AT BAYFRONT.**

- \* If City/County/State want to inspire or require citizens to make changes to reduce GHG, government can and should show how.
- \* Regarding city, make bayfront area between airport and convention center, including the Embarcadero, an area where people with suitcases, etc., can move comfortably and safely by electric transportation, such as a monorail/trolley/cable car between airport and bayfront hotels, attractions.
- \* Make area between airport and downtown a highly visible environmental showcase, where the "future" can be seen "now" and provide inspiration. Most other city progress with GHG reduction is out of sight and mind of nearly all people. There is no apparent change underway. Promote our vision for a clean future.
- \* Require that all tall buildings downtown (at a minimum) equip their roofs with solar to maximum extent practical and implement better energy efficiency requirements with their occupants.
- \* Require cruise ships to no longer burn fuel and pollute while at dock in idle.
- \* Coordinate with SDUPD (Port) for the Port to provide power outlet at anchorage for ships so that idling is unnecessary.
- \* Tourism will increase with a new, bold environmental distinction.

4) **SET IMMEDIATE CARBON, WATER NEUTRAL AND GREEN GOALS/REQUIREMENTS IN NEW GENERAL PLAN AND ACTION PLANS.**

- \* Change General Plan to create a vision where all new development pay its own way, environmentally speaking, by requiring "green" buildings, PV, water efficiencies, water capture, graywater reuse, etc., to the maximum extent practical.
- \* For rented space, require individual space energy meters so that tenants are aware of and can modify energy consumption.
- \* Orient buildings to capitalize on sun.
- \* Ban wood burning stoves and fireplaces from new homes.
- \* Require new pools be fully solar powered and heated.
- \* Change Municipal/County Ordinance to require energy improvements at time of sale of all properties (at least LEED Silver).
- \* Require larger buildings to install PVs at time of sale.
- \* Stop incentives to sprawl, including stopping further backcountry sprawl.
- \* Preserve open space to maximum extent possible. Consider new plantings in areas where plants grow efficiently without added water and energy to offset loss of open space.
- \* Regarding water availability, see section 6, below.

5) **ENACT ORDINANCES THAT IMMEDIATELY REQUIRE CARBON NEUTRAL DEVELOPMENT AND LOCAL ENVIRONMENTAL JUSTICE; RETROFITS.**

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- \* At highest level of government possible, immediately implement a "no net new GHG" plan for all development presently under consideration. Allow offsite offsets.
- \* Change development requirements and mandate high energy efficiency for all new residential, commercial, and industrial development to maximum extent practical.
- \* Require all new development to cover its energy needs without fossil fuel by use of PV, wind, co-generation, geothermal, etc., onsite or by arrangement with offsite provider.
- \* Promote environmental justice by providing a choice to developers who need to do off-site mitigation to make needy neighborhoods the beneficiaries of conservation measures.
- \* Further promote environmental justice by establishing training/work programs in underprivileged areas to develop green skills and jobs and implement work in needy areas.
- \* Effect change in state law that would permit trading of energy as described above.
- \* At time of transfer of property, require retrofit to at least LEED Certified level and PV to maximum extent feasible for site.
- \* Establish carbon neutrality goal for all city operations.

6) **ENACT ORDINANCES THAT IMMEDIATELY REQUIRE THAT SUFFICIENT WATER AVAILABILITY IS ACTUALLY PLANNED AND FUNDED SO AS ACCOMMODATE ADDITIONAL ARID-CLIMATE APPROPRIATE DEVELOPMENT 25 YEARS OUT.**

- \* At highest level of government possible, immediately implement a "no net new water" plan for all development presently under consideration in Southern California, other arid/semi-arid areas, and all other water-limited areas. Allow offsite offsets.
- \* As general rule, in dry, water-restricted areas, only allow drought-tolerant xeriscape.
- \* No new water-intensive landscaping should be allowed in the region, with minor exceptions for a limited area of back yards, and for park or athletic purposes, unless the development can rely on reuse of its own graywater to support more water-intensive landscaping.
- \* Immediately require that all new development in the region not require any new water, unless the proposed development is green and will use the least amount of water feasible, while reusing the maximum amount of graywater feasible, and that water is actually conserved or reused in sufficient amounts *in the region* to anticipate projected regional shortages such that enough water is saved to still accommodate the new demands of the additional development.
- \* Initiate limited mandatory water restrictions or rationing in the region to adjust toward anticipated shortfalls.
- \* Mandate conservation regionally to allow local farmers to avoid otherwise mandated water cuts at the end of this year due to inadequate water supplies
- \* Maximize tertiary treatment of sewage for reuse (irrigation or drinking) or groundwater recharge.

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- \* Establish sewage reclamation plants at, and distribution lines from, strategic locations along the main sewer trunk with ultimate goal of complete sewage reclamation and zero discharge to ocean.
  - \* Consider desalination.
  - \* Change development requirements and limit landscaping options to that which can be supported under ordinary conditions by onsite graywater reuse.
  - \* Require graywater reuse for all new development to maximum extent practical (pay your own way concepts).
  - \* Collect stormwater runoff from large paved areas for onsite/local irrigation purposes.
  - \* Hire people to look for excessive irrigation runoff and give modest fine if not corrected after warning. Fines to pay for new employees.
  - \* Encourage water capture methods (cisterns, etc.) where practical.
  - \* Require that drainage of pools be absorbed onsite.
  - \* Reduce amount of hardscape so more runoff can be absorbed.
- 7) **REMOVE EXCEPTIONS TO RECYCLING REQUIREMENTS.**
- \* Extend life of existing landfills by improved recycling. Save money by avoiding having to build new landfills sooner.
  - \* Regarding recycling, cover broader spectrum of City/County/State (i.e., apartments, commercial events, etc.).
  - \* Provide a means to recycle at public places (note lack of recycling options at Embarcadero, sports facilities, malls, events, etc.).
  - \* Encourage better participation by refusing to pick up garbage if random check shows failure to recycle.
  - \* Require all construction demolition to be recycled.
  - \* Encourage/develop market to reuse recycled material.
- 8) **CONSTRUCT ISOLATED BIKE LANES FOR MAJOR COMMUTER AREAS.**
- \* Encourage better use of bikes instead of cars for commuters.
  - \* To encourage maximum participation, emphasize improved bike lanes, isolated from the road, to connect the major residential areas to reasonably close, major employment areas. Example: Point Loma to downtown.
- 9) **MAKE VENDOR/CONTRACTING REQUIREMENTS GREEN.**
- \* Consider new contracting requirements, such as requiring parties that do business with the City/County/State to document their own efficiency/green measures (e.g., low-polluting, high-efficiency vehicles; carpooling; installation of PV; carbon offsets).
  - \* Consider requiring rental car agencies to rent vehicles that meet specified efficient fuel standards.
  - \* Give priority to vendors that are carbon neutral, install PV, use electric or hybrid vehicles, etc.
- 10) **REDUCE FIRE RISK AND ACTUAL FIRES.**

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- \* Clear cut sufficiently wide fire-breaks through fire-prone areas to assist in controlling fires more quickly.
  - \* Allow greater clearing around homes in fire-prone areas to prevent loss of homes.
  - \* Ban open fires.
  - \* Ban bonfires around bays, etc.
- 11) LIMIT FIREWORKS.  
Reserve fireworks for July 4th.
- 12) USE AUTO PULL SYSTEM FOR CHRONIC BORDER LINES.  
\* Coordinate with Mexico to install pull features, similar to that at car washes, which can pull cars in neutral (without engines running) through border checks.  
\* Use similar system at other similar and customary road checks elsewhere.
- 13) EMPHASIZE MASS TRANSIT, NOT ROADS, AND BUILD AROUND THAT.  
\* Develop with smart growth which clusters work and residence in proximity to existing main transit corridors, but give sufficient buffer for air quality purposes.  
\* Build mass transit, and direct future development around such transit.  
\* Stop urban sprawl.  
\* Make mass transit more attractive by dedicating lanes to buses.  
\* Consider free public transportation where offset in GHG due to verifiable reduced use of personal vehicle.
- 14) NUCLEAR POWER.  
\* Consider 4th generation nuclear power, which can use nuclear waste, especially to substitute for areas heavily reliant today on coal, and in areas where high regional energy demands makes use of photo-voltaics of marginal value.  
\* We need to bite the bullet on this one and finally establish a national depository for nuclear waste - or find a way to use those wastes productively.
- 15) CARBON TAX.  
\* Implement a carbon tax, which is an "honest" assessment of the true social cost of carbon. Painful as any tax is, the truth is we need to create a disincentive to using fossil fuels. The tax should be used to pay for research and development and implementation of renewable energy. Some portion should assist low-income people most affected by the cost increase.  
\* For decades, environmental economists have said the market system has not charged for the social costs of pollution. The marketplace has not reflected the price of pollution. The unpaid cost of pollution has finally caught up with us. We need to charge a tax at the top of production for carbon dioxide equivalents.  
\* Substantially increase gas tariffs and make a minimum, and rising, national price for gasoline. During the summer, 2008, premium gas prices in San Diego, California, exceeded \$4.75 per gallon. Only because of the high price did people suddenly realize they needed to make changes. With prices now under \$2.00, the positive changes will

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revert. Isn't this the time to establish a national minimum price for gasoline so that the disincentive to consume remains and the long-term ability to unleash a new generation of fuel efficient vehicles that will likely only succeed if the price of gasoline remains high so that people are motivated to buy such vehicles.

16) **SET A MINIMUM NATIONAL PRICE ON GASOLINE.**

\* Consider setting gas prices at \$3.00, and raise that over time. Apply the new tariff to renewable energy, related infrastructure, and mass transit. Consider allowing these new proceeds to assist state governments with addressing any deficit for one year. Each state and the federal government could use this massive infusion of funds for massive job-creating projects that helps us bridge over to our future energy source needs and mass transit.

\* By establishing a minimum price, the auto industry will be able to rely on solid, future demand for fuel efficient vehicles.

17) **CAP AND TRADE.**

\* It is critical to set a goal for GHG reduction and realize it. Carbon taxes create disincentives but do not ensure we reach our goal within a specified time frame. BOTH must work together. *All carbon credits should be sold at a high enough price to be felt so as to build in reason to reduce GHG production.* The European model failed because credits were given away or given away unfairly as a result of political influence. Credits should be sold in addition to having a carbon tax imposed where the carbon-based product is first introduced.

18) **SMART ENERGY GRID.**

\* If a stimulus proposal is needed to lift our economy, then invest in our future and job growth in a way that maximizes both job creation and the further development of a new energy system based on renewables.

\* A "smart" grid increases efficiency in the transmission of electricity, partly by using DC current to get rural wind energy sources to the urban centers. It also incorporates the digital age by establishing communication between consumer products and the electrical supply providers. With "smart" products, your dishwasher and other products communicate with the utilities so that they may defer their task until the overload in demand has passed, such as at nighttime on high-demand days, etc., when power is cheaper and threat of brown or black outs has passed.

\* The Department of Energy has found over \$100 billion is lost annually as a result of problems such as blackouts in our existing, antiquated electrical grid. The cost of a new grid may be several times that amount. That will feel like a good deal after just a few years.

\* Construction of a smart electrical grid will facilitate all sorts of renewable energy projects - new jobs, clean energy - many in areas that are best suited for wind, etc., but are not currently connected to the grid. The new grid will be synergistic by creating not just job construction for the grid itself, but stimulating a second generation of jobs with renewables that either need the grid to develop or will be enhanced by it .

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19) **FEED-IN TARIFFS.**

\* We need to create an incentive for everybody to install renewables. Establish Fee-in Tariffs (TiFs) to provide a reasonable profit to all people who install and generate renewable energy. Guarantee a 20 year rate of return. Set a different rate for each category of renewable energy according to intent to spur investment. Set rates every 3 or 4 years and fine tune as you proceed.

\* Residents and businesses now can find a bank willing to lend money to make the investment.

\* In Germany, FiTs have unleashed entrepreneurs across the county.

\* FiTs are a necessary part of involving broad sectors in becoming energy independent, even though the overall percentage of energy production may not be large. (Wind remains far more efficient than PVs, and most people will only be able to contribute to the solution with PVs.)

20) **STOP ALL FURTHER DEGRADATION TO ECOSYSTEM.**

Stop all further degradation of natural and planted ecosystems to maximize carbon sequestration ("No net degradation"). Any degradation should be mitigated offsite.

21) **REPLANT FORESTS.**

Identify areas in United States where forest replantation can be used for carbon sequestration and GHG offsets and is fully verifiable. Must be a net gain here in forests to be effective. Push for treaties protecting and enhancing rain forests.

22) **REMOVE COUNTER-PRODUCTIVE SUBSIDIES.**

\* Check all subsidy programs to ensure they achieve goals that are consistent with reduction of GHG and clean energy production.

\* Example: remove all tobacco subsidies and replant such areas with biofuel crops with highest conversion efficiency.

\* Do not use food supplies, such as corn, that reduce food for people and raise food prices, for biofuel.

23) **TIDAL POWER.**

Consider tidal power generation where currents are strong and consistent.

24) **FISHERIES.**

Establish "catch share," in which a quota is set for the number of fish that can be caught in threatened fisheries. Fishermen share in the returns according to an agreed upon allotment, which is usually based on historical catch percentages. The quota changes each year according to the health of the fishery.

25) **PROMOTE SMALLER FAMILIES WORLDWIDE.**

\* Encourage reduction in population growth worldwide.

\* More people place greater demands on ever-decreasing resources.