

# deep green

## **Possible Actions to Lower the Human Carbon Energy Footprint**

### HABITAT RESTORATION

- 1) Plant lots of trees
- 2) Plant mixed species native trees, berries, flowers
- 3) Plant trees north side so south solar is free in cool climates
- 4) Plant trees south side for shade hot climates
- 5) Add nesting sites—brush piles, rocks, birdhouses—see WWF backyard wildlife habitat ideas
- 6) Add a source of water for animals—move it or change it to eliminate mosquitos
- 7) Recycle/compost yard clippings, compost all food wastes
- 8) Go more paperless in your office
- 9) Recycle all paper—most old growth cutting is to make paper
- 10) Print on both sides of recycled paper
- 11) Print with narrow margins, smaller type

### ENERGY EFFICIENCY

- 1) Disconnect Second Refrigerator
- 2) Disconnect or downsize extra freezer
- 3) Install well-designed, good light, compact fluorescent lights (CFCs) or LED lights
- 4) Install power bar turn-offs or unplug standby electronics
- 5) Replace in window AC with cooling fans
- 6) Install programmable thermostat—set at 68 degrees winter, 78 degrees summer
- 7) Let your hair dry ambient
- 8) Use less water, thus less electricity to pump it
- 9) Hang your laundry to dry (if you are crazier than me)
- 10) Turn down your water heater to 120 degrees
- 11) Clean furnace filters and refrigerator coils
- 12) Straighten heat ducts
- 13) Mothball giant old electronics
- 14) Change from gas power to push lawn mower
- 15) Abandon the leaf blower for the rake and broom
- 16) Use hand kitchen tools—knives, can-openers
- 17) Use hand toothbrushes
- 18) Install light dimmers
- 19) Wrap the Hot Water Heater with insulating blanket
- 20) Disconnect Hot Tub or heat it with solar
- 21) Paint with light paint, use light carpet to reflect light/use less electricity
- 22) Enable your computer power management system—use a quick, deep (1 Watt) sleep mode
- 23) Use Inkjet printers if possible instead of guzzler laser printers
- 24) Buy combi print/scan/fax/copy machines
- 25) Deep recycle everything at highest use, reuse

### ENERGY EFFICIENT APPLIANCES

- 1) Join Japan, Europe and now China in a Top Runner program where appliance standards increase every year based on the most efficient designs possible instead of the least efficient.
- 2) Front load washing machine
- 3) Highest rated beyond Energy Star dishwasher
- 4) Refrigerator with lowest Kw Hour use—no icemaker, no butter warmer, etc
- 5) Install a good inline water filter at the kitchen sink and use stainless steel bottles
- 6) Downsize electronics—laptops instead of box computers, cloud computing, small stereos, LED TVs

- 7) Change from CRV computer screens to flat-screens
- 8) Use energy saving settings
- 9) Timer lights in building hallways
- 10) Programmable thermostats

### GREEN BUILDING

- 1) Blower test to see where doors and leaks
- 2) Infra red test to see where the walls and floors leak
- 3) Seal with foam insulation and add non-toxic bulk insulation to the max—attic, floor, walls
- 4) Fireplace plugs, tight glass doors, chimney dampers up top
- 5) Live smaller in house or apartment
- 6) Weather-seal doors, windows, walls
- 7) Insulated curtains
- 8) Insulated honey-comb shades (in tracks-tight)
- 9) Occupancy sensors—infra red motion detector triggered to turn on and shut off lights
- 10) Day-lighting design to lessen need for electric lights
- 11) Energy Efficient Windows—tints/coatings/glazing
- 12) Recapture heat in air exhaust—HRV—Heat Recovery Ventilators
- 13) Use passive systems without need for electric/carbon power wherever possible
- 14) Double pane windows with low e glass coatings and storm windows
- 15) Green roof—cools in summer, warms in winter, cleans air pollution
- 16) Roof with light colors to reflect light/heat
- 17) Use smart materials—chemical cement and drywall, recycled
- 18) Reuse materials
- 19) Recycle buildings
- 20) Install a smart meter on the house and smart chips on your appliances to best use renewable and cheap electricity and to keep the peak use of fossil fuel plants lower
- 21) Install rain-catchment, grey water, storm-swale storage systems to lower water use and water pollution runoff.

### LIFESTYLE

- 1) Open windows morning, close midday—summer
- 2) Close windows morning, open midday—winter
- 3) Shorter showers
- 4) Think ahead—i.e. thaw frozen food ambient, not in the microwave etc
- 5) Buy with less to zero packaging
- 6) Buy things that last
- 7) Change purchasing habits to sustainable—end throwaway thinking—there is no “away”
- 8) Buy local—less transport carbon burning
- 9) Grow some of your own food—extreme local
- 10) Use the best materials that last longest
- 11) Shop with reusable shopping bags
- 12) Eat lower on the food chain—less meat means less water use, less deforestation, less pollution
- 13) Use lowest carbon transportation—walk, bike, mass transit, carpool before solo car

### WATER

- 1) Front load washing machine—1/2 the water
- 2) Drip irrigation in yard
- 3) Stainless steel bottles for water
- 4) Dual flush toilets
- 5) Low water use dishwashers
- 6) Grey water recycle systems
- 7) Eat less meat (5000 gal/lb of meat)
- 8) Install water catchment systems—gutters/barrels/cisterns—use goldfish in the barrels to eat mosquito larvae
- 9) Install low flow nozzles on showers and sinks
- 10) Install storm-swale catchment to lower direct pollution runoff—let the water percolate through the ground slowly

## TRANSPORT

- 1) Buy and get tax credits for an electric or plug-in electric car
- 2) Work at home—telecommute
- 3) Walk/bike/bus/carpool/streetcar/train to work—the lowest carbon alternative possible
- 4) Live near your workplace
- 5) Use flex-car and flex-truck services
- 6) Decommission your SUV—get it off the road early—recycle it in toto
- 7) Fly a lot less—worst thing we do, biggest carbon footprint—teleconference and skype

## RENEWABLE ENERGY

- 1) Sign up for all renewable energy in your electric bill
- 2) Install geothermal heat pump/ground source heat pump
- 3) Or—Install European/Japanese style furnace with solar hot water, renewable electric powered air heatpump with heat capture of exhaust air system
- 4) Install solar Hot Water System with renewable electric backup
- 5) Install solar electric for the house and the plug-in/electric car on your roof
- 6) Solar heat your and every neighborhood pool
- 7) Lobby and help your employer to do all this at your place of work

## UTILITIES

- 1) Install a robust National long-distance High Voltage Direct Current grid to be able to move the biggest sources of renewable energy—wind from the mid-west and sun from the southwest
- 2) Open the grid and the Utility business to small, dispersed, renewable energy producers
- 3) Refurbish by law all old fossil fuel electric plants to increasingly cleaner levels
- 4) Stop building Coal fired power plants and decommission old coal plants as fast as possible unless all carbon dioxide is sequestered and all other pollution is detoxified
- 5) Sequester all CO<sub>2</sub> from all fossil fuel power plants and big industrial users like cement and fertilizer in deep land storage
- 6) Help the Third World leap past dirty fossil fuel energy like coal to renewable energy and energy efficiency with technology transfer, advise, and long term loans

## POPULATION

- 1) Empower women worldwide with microloans
- 2) Make family planning available worldwide
- 3) Eliminate poverty worldwide so poor people don't cut down the last tree and fish out the last fish and pollute their life support system
- 4) Have fewer children