



Renewable energy from windmills helps make the country's power sector one of the cleanest in the world. But Costa Rica can do even more to reduce its reliance on oil.

## Costa Rica: Setting the Pace for Reducing Global Warming Pollution and Phasing Out Oil

President Arias has declared a goal of making Costa Rica the world's first carbon neutral country, reducing net global warming emissions to zero. Offsetting current emissions through forest conservation and reforestation programs can help the country get there, but Costa Rica has the potential to do even more. Costa Rica is already a world leader in renewable energy use and tropical forest conservation, but the transport sector is entirely dependent on oil. By increasing investment in domestic renewable energy production and demand reduction strategies, Costa Rica could be the first fossil fuel-free country in the world. The time to act is now: Costa Rica should capitalize on the investor interest in clean technology and maximize the potential for rural development and jobs in new industries. NRDC recommends a suite of four key strategies that will help pave the way for Costa Rica to become a global pioneer in solving one of the biggest—and most urgent—challenges the world's citizens face today.

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### Four key strategies for reducing global warming pollution in Costa Rica

By investing in sustainable domestic energy strategies, Costa Rica can meet its energy needs without fossil fuels—diverting US\$1 billion annually in oil imports—and reduce global warming pollution. NRDC recommends four strategies:

- Increase energy efficiency in the electricity sector
- Raise fuel economy standards and adopt plug-in hybrid electric vehicles (PHEVs)
- Encourage production of biomass for electricity and transportation fuels
- Increase the efficiency and use of public transport

*Global warming and heavy dependence on fossil fuels are two of the greatest threats facing humanity today. This administration will strongly advocate local, regional, and global action on climate change, including full support for the Kyoto Protocol, renewable energy, and greater fuel efficiency for vehicles.*

PRESIDENT ARIAS, COUNCIL OF THE AMERICAS INTERVIEW, NOVEMBER 24, 2006



Costa Rica



**Increasing energy efficiency in electricity sector** Off-the-shelf demand-side and load

management programs, which address reductions in peak energy use, coupled with energy conservation strategies could yield a 12 percent savings total forecasted demand—and increase the income of national utilities by US\$103 million over 15 years.<sup>1</sup> Using even newer, more efficient technologies could double these savings. NRDC recommends that Costa Rica pursue programs such as those in California, Japan, and Canada that require all companies to adopt industry best practices and strong appliance efficiency and building standards. The Costa Rican electricity system is well structured to enact efficiency measures because the national state-owned utility does not have a profit incentive to sell more power.<sup>2</sup>



**Raising fuel economy standards and adopting plug-in hybrid electric vehicles** Costa Rica's transport sector—the

*single largest source of global warming pollution in the country*—is dependent on imported oil, making it vulnerable to rising fuel prices and political pressure from oil exporters. In turn, this increases the demand to drill for oil domestically. NRDC recommends that the Costa Rican government set a baseline fuel economy standard and mandate annual increases. Increasing the fuel economy of light duty vehicles is the single most effective energy-saving policy the Costa Rican government could adopt. The technology already exists for many alternative vehicle and fuel solutions. The government should create economies of scale for plug-in electric vehicles by mandating their purchase by all government agencies. Incentives for cleaner vehicles—vehicles with high fuel economy and alternative fuel use capability—should also be instituted, and would pay for themselves in oil savings. If these cleaner vehicles were just 50 percent of the total vehicle fleet, oil consumption would be cut by almost half. Although the cost premium for cleaner vehicles

may be seen as a challenge for consumers, Costa Ricans already pay more for diesel engine vehicles and through consumer education could learn the favorable return on investment of cleaner vehicles.



**Encourage sustainable production of biomass for electric and transportation fuels** By expanding sustainable biomass fuel crops in Costa Rica's renewable

energy portfolio, the country can make a big dent in its dependence on imported oil and reduce its global warming pollution. Not only will biomass crops provide an alternative to fossil fuel for the transportation sector, but the waste from biomass crops can also be used to generate enough electricity to replace the bunker oil running many processing plants. There is already a combined capacity of approximately 400 MW of power, or 5% of total demand, that could be generated from biomass and sold to the national grid while at the same time biofuels produced from the same crops could displace at least 10 percent of oil use.



**Increasing the efficiency and use of public transport** The transport sector is responsible for 25 percent of global

warming pollution worldwide—and significant air pollution that threatens the health of urban residents in city centers such as San Jose in the Central Valley of Costa Rica. A mass transit plan for Costa Rica's Central Valley, similar to the system in Bogota, Colombia, could displace millions of gallons of oil per year while providing safer, faster, and more convenient transport. And if new, efficient public transport programs, such as express busways and electric buses, partially replaced current private transport, Costa Rica could qualify for Clean Development Mechanism financing for this strategy.

<sup>1</sup> Anderson, Rolf. "Case Study: Costa Rica Load Management Program." World Energy Efficiency Association.

<sup>2</sup> Morey, Jessica. "Clean Power in Costa Rica: Opportunities and Barriers." August 2006

NRDC's History of Success in Costa Rica

In 2001, ADELA, a coalition of citizen groups in Costa Rica's southeastern region of Talamanca, contacted NRDC for assistance in opposing plans by Harken Energy to explore and develop offshore oil. Offshore oil drilling would have irreversibly damaged Talamanca, one of world's most biologically rich areas, harming its indigenous and Afro-Caribbean communities and thriving tourism industry. Mounting an impressive campaign, ADELA—with international support from NRDC's BioGems Initiative—secured a government decision not to proceed with oil development in the region. Because the pressure to drill for oil continues, NRDC is eager to work with Costa Rica to develop suitable alternatives.

