



Remarkable! – July 2012

Hawaii's successful approach to marine debris disposal¹

Marine debris of all types accumulates in and around the islands of Hawaii due to their location in the middle of the North Pacific Subtropical Gyre. Much of the debris is made up of derelict fishing nets. Derelict fishing nets and other fishing gear from domestic and foreign sources in the greater Pacific are safety and navigation hazards and can damage vessels. Carried by currents, the nets wash ashore and snag on the coral reefs of the Northwestern and Main Hawaii Islands, causing extensive damage and entangling marine mammals, turtles, and other wildlife each year¹, e.g. birds.

Since 1996, the National Oceanic and Atmospheric Administration (NOAA) has led marine debris removal efforts in the Northwestern Hawaiian Islands. Since then, over 670 metric tons of derelict nets, line and rope have been removed by NOAA and the U.S. Coast Guard. Instead of adding this debris to already congested landfills, in 2002, a unique program was devised to turn this marine debris into electricity.¹

The collected derelict fishing gear, mainly nets, is transported to the facility of Schnitzler Steel Hawaii Corp., a scrap metal recycler. There the nets are chopped into small pieces suitable for combustion at the City and County of Honolulu's H-Power Waste-to-Energy Facility run by Covanta Energy. Schnitzler Steel transports the chopped net pieces to the H-power facility,¹ which is next door. There the nets are burned, producing steam that drives a turbine to create electricity¹, which is fed to Oahu's electricity grid. All services are given free of charge. According to the Hawaii State Department, 100 tons of derelict nets provide enough electricity to power 43 Oahu homes for a year!¹

Today, all NOAA-funded marine debris removal projects in Hawaii incorporate this program as a component for success. Derelict net from the Pier 38 reception facility in Honolulu's commercial port, local beach cleanups, and organizations such as the Hawaii Wildlife Fund and the Surfrider Foundation's Kauai Chapter also go into the Hawaii Nets to Energy Program. This Program has been so successful that it was used as the model for the "Fishing for Energy" program¹, which has been implemented in 20 ports in 8 coastal US American states and has recycled over one million pounds of gear² to date.

The "Nets to Energy" program runs today through the no-cost support and work of Hawaii's marine debris partners, mainly within the private sector. ¹According to Michelle Pico from NFWF, benefits of the private partners are the revenues they make out of recycling the metals incorporated in the derelict fishing gear and the conversion of the remaining gear into electricity.

COPLARE finds that this a perfect model of numerous win-win-situations created by creative and useful partnerships!

¹ Source: Carey Morishige, NOAA Marine Debris Program / I.M. Systems Group, Inc., in "Technical Proceedings of the Fifth International Marine Debris Conference, March 2011, Honolulu, Hawai'i, USA", p. 91 ff

²² Source: Michelle Pico, National Fish and Wildlife Foundation in "Technical Proceedings of the Fifth International Marine Debris Conference, March 2011, Honolulu, Hawai'i, USA", p. 587 ff