

Appropriate Treatment and Recycling of end-of-life Vehicles (ELVs)

NGP2005 Objectives

●Advance recycling operations

- Development and deployment of new technology for appropriate treatment of end-of-life vehicles (ELVs)
- Design for recycling
- Continuing expansion of the Nissan Green Parts

Major Results by FY2005

●FY2005 recovery rates and volume in Japan based on the Automobile Recycling Law

- Automotive shredder residue (ASR): 67.9%
- Airbags: 93.5%
- CFCs/HFCs: 144,346kg

●In 2001 commenced collecting aluminum road wheels of ELVs and recycling into new parts (FY2005 recycled volume: 100 tons/month)

●In the fall of 2003, the Oppama Plant began ASR recycle operations, making Nissan the first automaker to use its own incineration facilities to process ASR (FY2005 recycled volume: 400 tons/month)

●Published the "Dismantling Manual for Parts/Components Containing Copper (Cu) of End-of-Life Vehicle"

●Nissan Green Parts sales: approximately ¥2.1billion

●Jointly developed and launched with Renault the OPERA recycling simulation system

* For further information on recycling design, please see "Promotion of design for recycling and management/Reduction of environmentally impacting substances" (page 08).



Dismantling research of ELVs in Japan

Nissan has established an integrated in-house system and maintains partnerships with outside operators to maximize the recycling of reusable materials and the reduction of waste. Based on the principle of the "3Rs (Reduce, Reuse, and Recycle)", these efforts are aimed at further raising the recovery rates of end-of-life vehicles.

Applying Our Recycling Research

For nearly a decade, Nissan has been participating in research with recyclers to optimize the dismantling of our vehicles. These collaborative activities have provided research and testing data that has been integral to developing environmentally friendly disposal methods, recycling materials, and the recovery and reuse of parts.

The product development division has integrated this valuable feedback into the final designs of our vehicles. Research data was a key element in the development of the Nissan airbag processing system used in Japan under the provisions of the Automobile Recycling Law.

Aluminum Road Wheel Recycling

Nissan developed an innovative process for recycling aluminum road wheels without compromising the quality of the material. Dismantlers in Japan separate and recover aluminum road wheels from Nissan's ELVs. We then collect the wheels at the Nissan Yokohama Plant to regain the high quality aluminum and recycle it into important new parts, such as suspensions, that require high quality material.

Energy Recovery from Automobile Shredder Residue (ASR)

In the fall of 2003, Nissan achieved a technological breakthrough in thermal recovery and became the first Japanese automaker to use existing incineration facilities at one of its own plants to recover energy from ASR. The success of our overall waste material recycling efforts allowed us to modify part of the waste incineration facilities at the Oppama Plant to process ASR and recover energy in the form of heat produced during the incineration process. The vapor generated is then used for heating in the plant's paint process.

Nissan Green Parts

The Nissan Green Parts system is an innovative complete cycle for reusing parts from Nissan ELVs. After recyclers carefully remove reusable parts, we collect and confirm the quality of the parts, and then resell them at sales outlets as second-hand Nissan Green Parts for repairs and replacement.

A total of 42 different parts are currently included in this scheme under two main categories: reusable and rebuilt. Reusable parts are second-hand parts that have been thoroughly washed and checked for quality. Rebuilt parts are those that have been dismantled, inspected, and fitted with replacements in place of expendable components. In addition to reducing the volume of waste, this system offers the economical advantages of enabling customers to buy parts at reduced prices while reducing waste processing costs at recycling facilities.

Bumper Collection and Recycling

Since 1992, Nissan has promoted the collection and recycling of used plastic bumpers accumulated during the repair and replacement of vehicle parts at dealers in Japan. This initiative is now firmly established and volumes are steadily increasing with some 273,143 bumpers collected for recycling into new plastic parts for new vehicles in Fiscal 2005.

Response to the Automobile Recycling Law

Advances in our recycling and disposal operations for ASR, airbags, chlorofluorocarbons (CFCs) and hydrofluorocarbons (HFCs) have enabled Nissan to achieve standards higher than those established in Japan by Automobile Recycling Law adopted in January 2005.

Nissan is a leading member of a group of 11 automobile manufacturers in the Automobile Shredder Residue Recycling Promotion Team (ART) formed to promote the efficient recovery of ASR in Japan. As a leader of the team, Nissan is taking the initiative to work together with various sections of society and to improve the efficiency of recycling operations throughout the automotive industry.