Strategic Policies for Building an Eco-friendly City in Shenyang

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Preface

Strategic measures to build an eco-friendly city

Strategies for building an eco-friendly city

The functions of local government in building an eco-friendly city
Through a series of policies and marketing measures, we build a long term system of promoting waste recycling (venous) industries and bring the plan of building a eco-friendly city in Shenyang into reality.
1. Strategic measures to build an eco-friendly city

(1) Based on the idea of building a conservation-oriented society and developing circular economy, we fully standardize, integrate and utilize the existing channels of collecting renewable resources. The community collection sites as basic units, the distribution market as the operation center, and with the purpose of recycling, processing and utilizing waste resources - through the integration of those three elements, we establish the network system of collecting recycling resources in Shenyang.
1. Strategic measures to build an eco-friendly city

(2) "The regulations and policies on national energy-saving society and developing circular economy"

- "Cleaner Production Promotion Law of the People's Republic of China"
- "Regulations on the collection and recycling of waste household electric appliances"
- "Several Opinions of the State Council on Speeding up the Development of Circular Economy"
- "Venous industry ecological industrial park standards" (HJ-T 275-2006)
- "Circular Economy Promotion Law of the People's Republic of China"
- "Electronic Waste Pollution Environmental Control Regulations"
- "Renewable Resources Collection Regulations"
1. Strategic measures to build an eco-friendly city

Shenyang Venous Industrial System

Waste materials trading system
(Trading market and network platform)

Material flow  Energy flow  Information flow  Value flow

Waste material regeneration system
(Recycling, reproduction, and safety)

Waste material collection system
(Focusing on social renewable resources)

Hardware supporting system—infrastructure
(Renewable material trading market and regional venous industry demonstration project...)

Development-level circular society
(sustainable development)

Venous industrial park and ecological industrial park
(Industrial symbiosis cycle logistics)

Venous enterprises
(Cleaner production, energy conservation, and emission reduction)

Software support
Organization  Law  Economy  Technology  Publicity
2. Strategies for building an eco-friendly city

(1) Focusing on developing resources-recycling industry

- **Build community collection network**
  - We establish community waste collection sites based on the requirements of "seven unifications and one standard", namely the unified planning, identification, clothes, prices, metrology, cars and management as well as the operation standard.

- **Newly build and transform renewable resources collection stations in communities**
  - Based on the principles of optimal arrangement and convenient transit, we set up recycling transfer stations as a whole. Distributed recycling resources are collected at a fixed time at the community recycling sites every day.

- **Build the network platform for waste material collection and trading**
  - The exchange of recycling resource information, online dealing and service can be carried out over the internet, which is favorable for all citizens in knowing the prices of recycled resources, selling channels, and recycling conditions. At the same time, the enterprises of utilizing recycling resources can use the platform for publicizing companies, exhibiting products and dealing online.
2. Strategies for building an eco-friendly city

(2) Developing the classified disposal of solid waste

Taking the food waste classification as a breakthrough, we have carried out the classification pilot projects and made phased advancement by gradual steps. First of all, we have chosen the communities where good-quality citizens live and the level of property management is relatively high, and carried out the household waste classification pilot projects. And then step by step, we have improved the accuracy of classification of waste into four types: food waste, recyclable waste, dangerous waste, and other waste.
2. Strategies for building an eco-friendly city

(3) Regulating the dismantling industry in Shenyang

1. Waste car dismantling industry

We strengthen the overall control on the scrapped car dismantling industry and implement the "demonstration project of upgrading scrapped car dismantling enterprises".
2. Strategies for building an eco-friendly city

(3) Regulating the dismantling industry in Shenyang

2. Waste household electric appliances dismantling industry

We formulate the regulations on the production, sales, use, and repairs of household electric appliances and electronic products as well as on the collection and disposal of waste household electric appliances in Shenyang. We establish the standard system of collecting waste household electric appliances step by step, and focus on the recycling and disposing engineering for waste household electric appliances.
2. Strategies for building an eco-friendly city

(4) Developing tire reproducing industry

Introduce large-scale enterprises that comprehensively use waste tire and plastic rubber with advanced technology; establish the cooperation platform among universities, research institutes, and enterprises and encourage enterprises to utilize new technology and develop new products, such as hot melt and cold quenching technology by reusing waste tires, which makes the efficiency of recycling reach over 70%.
2. Strategies for building an eco-friendly city

(5) Developing the industry for harmless treatment of solid waste

Sludge treatment and comprehensive utilization industry

Establish the collecting, transporting, handling and disposal system for the sludge produced from sewage treatment plants; transform existing production technology or introduce producing lines and establish the sludge disposal demonstration projects; the sludge after treatment can be used as aggregate of concrete, brick and tile products and road embankment, and filling for construction projects.

Household waste landfill gas power generation industry and household waste incineration power generation industry

Build the landfill gas power generation industry to generate electricity from household waste gas. The Shenyang Laohuchong landfill gas power generation project was completed and started the operation in April 2008. And next, Shenyang will start the household waste incineration power generation according to the plan.
3. The functions of local government in building an eco-friendly city

(1) Establish the laws and regulations system

- **Renewable resources collection**
  We introduced the "Renewable Resources Recycling Regulations in Shenyang" to manage resource recycling industries in Shenyang from the perspective of standard market development. At the same time, we control the outflow of renewable resources in quantity from Shenyang from the perspective of protecting industrial raw materials.

- **Solid waste classified collection**
  We introduced the "Household Waste Management Regulations in Shenyang", which include the contents such as household waste classification, waste fees estimate, and construction of waste disposal plant.

- **Waste dismantling**
  We formulated the "Scrapped Car Recycling Regulations in Shenyang" which strengthen the enforcement on controlling illegally assembled vehicles. We also introduced the "Interim Measures for Waste Household Electric and Electronic Products Recycling Pilot Projects" that stipulate the regulations on the production, sales, use, and repair of electric and electronic products as well as the collection and disposal of waste household electric appliances in Shenyang.
3. The functions of local government in building an eco-friendly city

(2) Formulate the economic policy of promoting the recycling of renewable resources

We formulated related policies on collection of renewable resources, classification disposal, dismantling, and construction of renewable resources industrial parks. We also encourage related enterprises in carrying out economic activities by setting up special fund, promoting tax reduction and exemption, and strengthening the support of financial fund.
3. The functions of local government in building an eco-friendly city

(3) Strengthen the efforts for supporting renewable resources technology and information industry

**Technological support**
We construct the technological supporting system for circular economy and venous industry, lead the technological force in participating the circular economy development, and strengthen the service and technology policies for transferring and converting the technology of comprehensive use of renewable resources. With enterprises’ technological innovation as the core, we establish the technological research system by combining the industry, academia, and research institutes. We also implement the national policies of eliminating, standardizing, and stimulating the technology of comprehensive use of renewable resources, and strengthen the efforts for supporting renewable resources enterprises in reforming technology.

**Information industry support**
We carry out the Best Management Practices (BMP) evaluating system in the development of venous industry in Shenyang and the related administrative departments in charge regularly publish the progress of venous industry. We also establish the information network for renewable resources recycling as well as the information network for popularization and application of the technology of comprehensive use of renewable resources.
3. The functions of local government in building an eco-friendly city

(4) Strengthen the publicity education for building an eco-friendly city

We provide guidance on consumption through exchange, discussion, questions and answers, and regular publication of the "information on products related to venous industry". We open the elective courses on circular economy in colleges in Shenyang, and conduct practical activities by regularly offering various courses about circular economy and green consumption.

We promote the publicity of renewable resources industrial parks through news and media, product exhibition, self-made movies, and publicizing materials so as to enhance people's knowledge on the significance of constructing renewable resources ecological industrial parks.

We promote the publicity of the communities practicing classified waste collection in pilot projects. We also provide training activities for publicizing household waste classification in kindergartens and elementary and junior high schools to promote household waste classification in the city.
3. The functions of local government in building an eco-friendly city

(5) Establish the effective public participation mechanism

1. The renewable resources association sufficiently fulfills its functions. The Shenyang renewable resources association is playing an intermediary role as a bridge connecting the government, enterprises, and consumers.

- The association provides the information on policies, economy, technology, products, and markets related to renewable resources and offers various consulting services to its members.

- The association develops the international exchange and cooperation with the same industry concerning economy, technology, trade and academic activities, and assists its members in introducing foreign capital and advanced technology.

- The association organizes or participates in various kinds exhibitions, shows, fairs, and waste material exchange markets sponsored by distribution and production companies.
3. The functions of local government in building an eco-friendly city

(5) Establish the effective public participation mechanism

2. Display the functions of social community and mediator
Through new mechanism, policy and action plan, we urge various social groups, media, research institutes, communities and residents to participate in decision, management, and control regarding renewable resources. We also give certain financial support to mediators and private groups being engaged in resources recycling, and organize social public welfare activities such as waste classification and collection of waste materials with the participation of community people and volunteers.
3. The functions of local government in building an eco-friendly city

(5) Establish the effective public participation mechanism

3. Guide consumers actively

We encourage green consumption and purchase of products with environmental certification and support the "green purchasing" activities in community streets. Also we encourage residents to bring their own shopping bags to replace plastic bags that are frequently used in large amounts.
Thank You!