# **Energy saving and environmental protection**

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# 1. Shangluo Environmental Protection Equipment Manufacturing Industry Project

### 1. Project name:

## **Shangluo Environmental Protection Equipment Manufacturing Industry Project**

### 2. Project unit:

Shangluo City Project Management Office

### 3. Project content:

It is planned to build an annual output of 200,000 sets of household car purifiers, 200,000 sets of truck exhaust purifiers, and 20,000 sets of large

Type air purifier, 5,000 sets of hollow fiber ultrafiltration modules, 5,000 sets of ceramic membrane modules, 10,000 sets of centralized

Water purifier, 5,000 automatic ammonia nitrogen detectors, 100,000 portable formaldehyde detectors, 100,000 portable PM2.5

Environmental protection equipment such as detectors. At present, the main products and scale for the development of the environmental protection industry have been determined, and a single

Brief analysis of the project.

### 4. Total investment and cooperation methods:

The total investment of the project is 3.47 billion yuan, and it is planned to complete the 9 subprojects including automobile purifiers and truck exhaust purifiers.

Ministry of investment, sole proprietorship, joint venture or other options are acceptable.

### 5. Market forecast and investment return analysis:

The world's environmental protection industry continues to grow, and the growth rate of domestic environmental protection equipment will reach about 25%-30% by 2020.

The annual output value is expected to reach 1.5 trillion yuan, and the market potential is huge. After the project is completed, the annual sales income can be 49.2

100 million yuan, with a profit and tax of 1.532 billion yuan.

# 2. Wuqi Oily Sludge Harmless Treatment and Resource Recovery Project

### 1. Project name:

### **Wuqi Oily Sludge Harmless Treatment and Resource Recovery Project**

### 2. Project unit:

Wuqi County Bureau of Commerce

#### 3. Project content:

The project is the harmless treatment of oily sludge in oil fields, which is an environmental protection treatment project. Using liquid-solid separation-oil and water

The separation technical route adopts advanced equipment such as decanter centrifuge and three-phase disc machine.

Domestic solid waste discharge standards, the treated water can be recycled, and a large amount of crude oil can be recovered at the same time.

Harmless treatment of oily sludge. The initial treatment scale is 100,000 tons/year.

### 4. Total investment and cooperation methods:

The total investment of the project is 320 million yuan, sole proprietorship and cooperation.

### 5. Market forecast and investment return analysis:

The project can realize a monthly net profit of 87 million yuan, with a payback period of less than 14 months, and has a good investment Capital potential.

# 3. Zhidan County Biomass Power Generation Project

### 1. Project name:

# **Zhidan County Biomass Power Generation Project**

# 2. Project unit:

**Zhidan County Investment Promotion Bureau** 

### 3. Project content:

Build a biomass power plant with an annual generating capacity of 150 million kWh, 2 sets of 12KW heat supply units, and 3 sets of 78t/h

Biological combustion boiler.

### 4. Total investment and cooperation methods:

The total investment of the project is 300 million yuan, sole proprietorship, joint venture or cooperation.

### 5. Market forecast and investment return analysis:

After the project is completed, the estimated annual operating income is 129 million yuan, the annual profit is 44.3 million yuan, and the investment recovery is The period is 6.77 years.

4. High-end environmental protection equipment production project in Liquan County

### 1. Project name:

High-end environmental protection equipment production project in Liquan County

### 2. Project unit:

Liquan County Investment Promotion Bureau

### 3. Project content:

It mainly constructs 1,000 square meters of scientific research office buildings and 12,000 square meters of manufacturing workshops. Purchase student

A total of 40 sets (sets) of production process equipment and large-scale equipment for testing, inspection and research and development.

### 4. Total investment and cooperation methods:

The total investment of the project is 300 million yuan, wholly-owned.

### 5. Market forecast and investment return analysis:

With reference to the sales price and product grade of similar products in domestic and foreign markets, the products of this project are temporarily

The current average selling price in the market is estimated. The normal annual operating income of this project is 200 million yuan.

### 5. Tongchuan Solid Waste Comprehensive Treatment Center Project

### 1. Project name:

### **Tongchuan Solid Waste Comprehensive Treatment Center Project**

### 2. Project unit:

Tongchuan Gaoda Industrial Investment Co., Ltd.

### 3. Project content:

Mainly construct solid waste temporary storage system, solid waste high temperature incineration system, physical and chemical and sewage treatment system, safe landfill

Burying system, resource utilization system, environmental emergency emergency center, etc., engaged in the collection of solid waste in Tongchuan City

Collection, transportation, storage, disposal, resource utilization and emergency rescue of environmental emergencies.

### 4. Total investment and cooperation methods:

The total investment of the project is 200 million yuan, joint venture or cooperation.

### 5. Market forecast and investment return analysis:

After the project is completed, it is estimated that the annual operating income will be 150 million yuan, the profit and tax will be 15 million yuan, and employment will be solved.

100 people. At the same time, all kinds of solid waste in Tongchuan can be effectively treated, and the solid waste in our province has been reduced.

Deal with pressure and reduce environmental risks.

### 6. Suide Urban Waste Harmless Treatment Project

### 1. Project name:

## **Suide Urban Waste Harmless Treatment Project**

### 2. Project unit:

Suide County Investment Service Center

#### 3. Project content:

With the acceleration of urbanization, the original domestic waste landfill can no longer meet the demand. This item is charged

According to the actual situation in Suide County, the waste incineration process is carried out by using mechanical grate furnace incineration power generation technology

Or pyrolysis to generate electricity, thereby degrading garbage. This project has strict environmental protection indicators,

The equipment is stable and reliable, the operation is safe and standard, and the management is advanced. In line with the sustainable development of domestic waste treatment,

Realize the reduction, harmlessness and resource utilization of urban domestic waste, and improve the urban environment.

### 4. Total investment and cooperation methods:

The total investment of the project is 150 million yuan, wholly-owned or joint venture.

### 5. Market forecast and investment return analysis:

The total investment profit rate of this project is 8.05%, which is slightly higher than the average investment profit rate of the industry. It can be seen that the project has Certain profitability.

# 7. Huanglong County Forestry Carbon Sink Trading Construction Project

### 1. Project name:

## **Huanglong County Forestry Carbon Sinks Trading Construction Project**

### 2. Project unit:

**Huanglong County Natural Resources Bureau** 

### 3. Project content:

Forest has the dual role of reducing emissions and increasing sinks, and has huge advantages in increasing sinks and reducing emissions. Develop forestry

Carbon sink trading projects can also generate additional economic, ecological and social benefits. Through "Forest Increase Foreign Exchange"

The way to deal with climate change has great potential. Huanglong owns more than 3.5 million acres of forest. It is estimated that it can produce oxygen annually

With more than 3 million tons of natural gas, it is planned to develop and utilize forestry carbon sinks in our county.

### 4. Total investment and cooperation methods:

The total investment of the project is 140 million yuan, wholly-owned or joint venture.

### 5. Market forecast and investment return analysis:

After the project is completed, every five years will be a cycle, and it can produce more than 3 million tons of oxygen annually, which is calculated at the current 50 yuan per ton

Calculated, the annual income can reach more than 150 million yuan, and the economic benefits are considerable.

# 8. Sludge Treatment and Disposal Project of Yan'an Sewage Treatment Plant

### 1. Project name:

## Sludge Treatment and Disposal Project of Yan'an Sewage Treatment Plant

### 2. Project unit:

Yan'an Water Environmental Protection Group Water Environment Treatment Co., Ltd.

#### 3. Project content:

The total scale is arranged at 200t/d, of which: the planned first phase (2025) sludge treatment and disposal scale is

150t/d (80% moisture content), covering an area of about 30 mu; reserved long-term (2030) scale of 50t/d. One

The construction content of the phase includes: dry mud feeding system, filter press dehydration room, fermentation tower, semi-finished product room of packaging workshop,

Goods warehouses, comprehensive office rooms, deodorizing rooms, gate walls and guards, etc. The construction period of the project is 1 year.

### 4. Total investment and cooperation methods:

The total investment of the project is 60 million yuan, a joint venture.

### 5. Market forecast and investment return analysis:

The profitability of the project meets the industry's minimum requirements, that is, the project payback period is 10.29 years and the internal rate of return is 8%.

9. Yulin Coke Oven Flue Gas Low Temperature SCR Denitration Project

#### 1. Project name:

### Yulin Coke Oven Flue Gas Low Temperature SCR Denitration Project

#### 2. Project unit:

Yulin Investment Promotion Service Center

#### 3. Project content:

The project is planned to be built in Yulin High-tech Industrial Development Zone. According to the characteristics of coke oven flue gas, the overall coating is developed

Layered low-temperature high-efficiency denitration catalyst is used for coke oven flue gas denitration. The catalyst is a kind of coated honeycomb ceramic

Wide temperature SCR denitration catalyst has the characteristics of good low temperature activity, large processing capacity, and strong anti-toxic ability. root

According to different flue gas conditions, such as temperature, ash content, pressure, composition, etc., the hole pitch,

Optimized design of active composition, catalyst arrangement, etc. can meet a variety of applications, such as coking smoke

Denitrification requirements for gas, glass furnace flue gas, ceramic kiln flue gas and nitric acid tail gas.

1. The low temperature denitration activity is high, and the denitration rate can reach more than 90% between  $200 \sim 250$ °C; 2. The temperature window is wide,

It works between  $180 \sim 450$  °C; 3. Engineering design of the catalyst makes the catalyst have good low temperature resistance

Sulfur poisoning ability, can work for a long time in flue gas with SO2 of 300mg/m3 at 230°C; 4. Removal accuracy

High, can ensure that the NOx concentration in the exhaust tail gas is less than 20mg/m3; 5. The operating airspeed is large, and the processing capacity is strong.

The reaction space velocity is between 10,000 and 20,000 hr-1, which is 4 to 5 times that of traditional catalysts.

### 4. Total investment and cooperation methods:

The total investment of the project is over 10 million yuan and the technology is licensed.

#### 5. Market forecast and investment return analysis:

Project stage: mature product. There are currently more than two thousand coke ovens in my country, and the temperature of coke oven flue gas exhaust is relatively low.

The temperature is about  $230 \sim 280$  °C. Traditional denitration catalysts used in thermal power plants cannot meet the requirements.

The demand for nitrate catalyst is strong.