

Gold in Green—— Great Potential for Sino-US Cooperation on Green Development from the Case of Tianjin Practice on Green Supply Chain

Tianjin Pilot Center of APEC Green Supply Chain Network

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China's Green Actions Create
Huge Market Demand

China Actively Participate in Environmental Protection and Climate Change Actions

The Paris Agreement

- Took effective on Nov. 4th, 2016
- Forged and signed by 193 nations
- Global average temperature increase below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C there above

Montreal Protocol on Substances that Deplete the Ozone Layer

- Took effect on Jan. 1st 1989
- The Montreal Protocol was ratified by 197 countries
- 28th Meeting of the Parties of Montreal Protocol on Substances that Deplete the Ozone Layer, held in Kigali, Rwanda, reached a global agreement on phasing down the global climate-warming hydrofluorocarbon (HFC).

G20 summit in 2016 and endorsed the first comprehensive report on green finance

- Proposed to promote green finance voluntary principles, aims to guide governments, international organizations and the private sector to jointly push, improve and advance Sustainable Banking Network (SBN), Principles for Responsible Investment (PRI) as well as other voluntary principles in the green finance domain.
- Germany is to continue the topic of green finance on the G20 summit 2017

China Actively Participate in Environmental Protection and Climate Change Actions

APEC Leadership Embraces Green Development

2011 Leaders' Declaration

- Receive an APEC-Wide 10% improvement in supply chain performance by 2015
- Develop an APEC List of Environmental Goods, and reduce the tariff rates to 5 percent or Less by 2015

2014 Leaders' Declaration

- Establish the APEC Cooperation Network on Green Supply Chain.
- Endorse the establishment of the first pilot center of the Network

China Introduced a Series of Green Action Plan to Drive the Huge Market Demand

— Pollution Prevention and Control

Action Plan on Prevention and Control of Air Pollution—The “Air Ten”

- ◆ Total investment over 1.84
- ◆ GDP to increase 2.04 trillion Yuan
- ◆ Employment to increase 2.9113 million
- ◆ Reduce chronic deaths total of 110,600 per year

Action Plan on Water Pollution Control – The “Water Ten”

- ◆ *The Action Plan on Water Pollution Control* was issued in April 2015
- ◆ Total investment over 2 trillion Yuan with 3 years
- ◆ GDP to increase 5.7 trillion Yuan
- ◆ Employment to increase 3.9 million
- ◆ Output in the environmental protection industry to increase 1.9 trillion Yuan

Action Plan on Soil Environmental Protection – The “Soil Ten”

- ◆ GDP to increase 2.7 trillion Yuan
- ◆ Employment to increase 2 million
- ◆ Output in the environmental industry to increase 450 billion Yuan

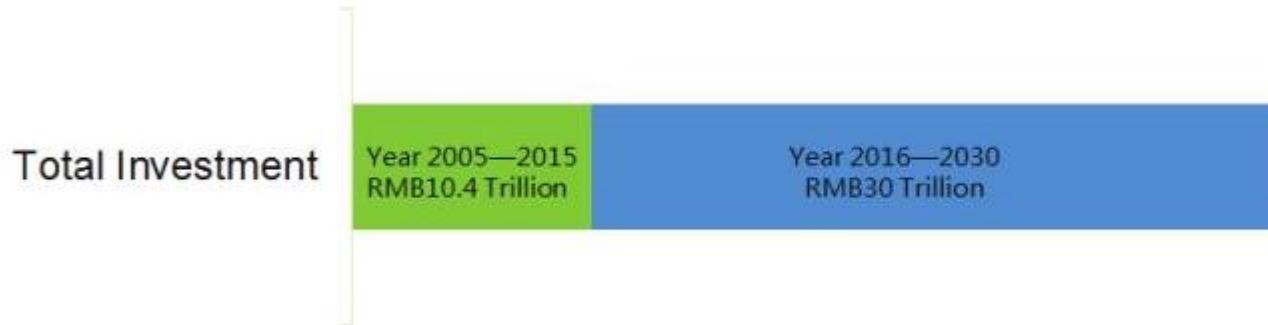
China Introduced a Series of Green Action Plan to Drive the Huge Market Demand — Combatting Climate Change

Intended Nationally Determined Contributions to Combat Climate Change

- ◆ 60%-65% reduction in CO₂ emissions per unit of GDP by 2020 compared with 2005
- ◆ Increase of non-fossil fuels in energy mix to 20% by 2030
- ◆ Peak of CO₂ emissions by 2030 or earlier
- ◆ Increase in carbon sink and forest reserve of 4.5 billion m² more by 2030 compared with 2005

China Introduced a Series of Green Action Plan to Drive the Huge Market Demand — Combatting Climate Change

To realize the target of the Intended Nationally Determined Contributions (INDC), China plans to invest 40.4 trillion Yuan from 2005 to 2030. The investment will not only be used to transform the development mode and people's way of life, but also to develop energy conservation, environmental protection and new energy industries.



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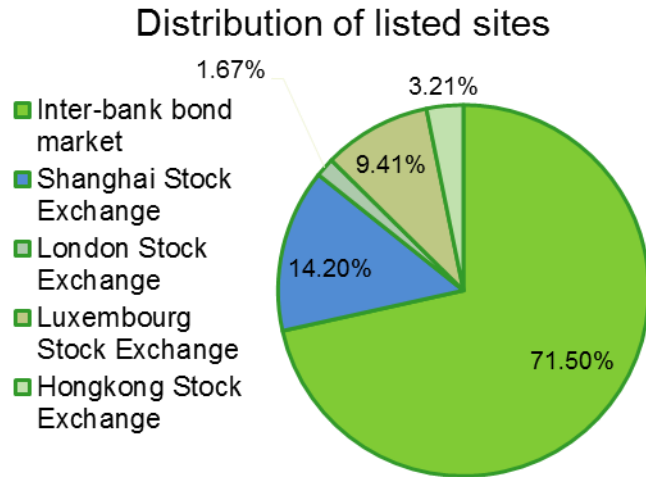
Market Mechanism is
an Important Measure
for China to Realize
Green Transformation

Market Measures of China to Promote Green Transformation Includes:

- Facilitate Green Finance
- Promote Carbon Market Construction
- Green Supply Chain Management
- Government Green Procurement
- Carbon Tax

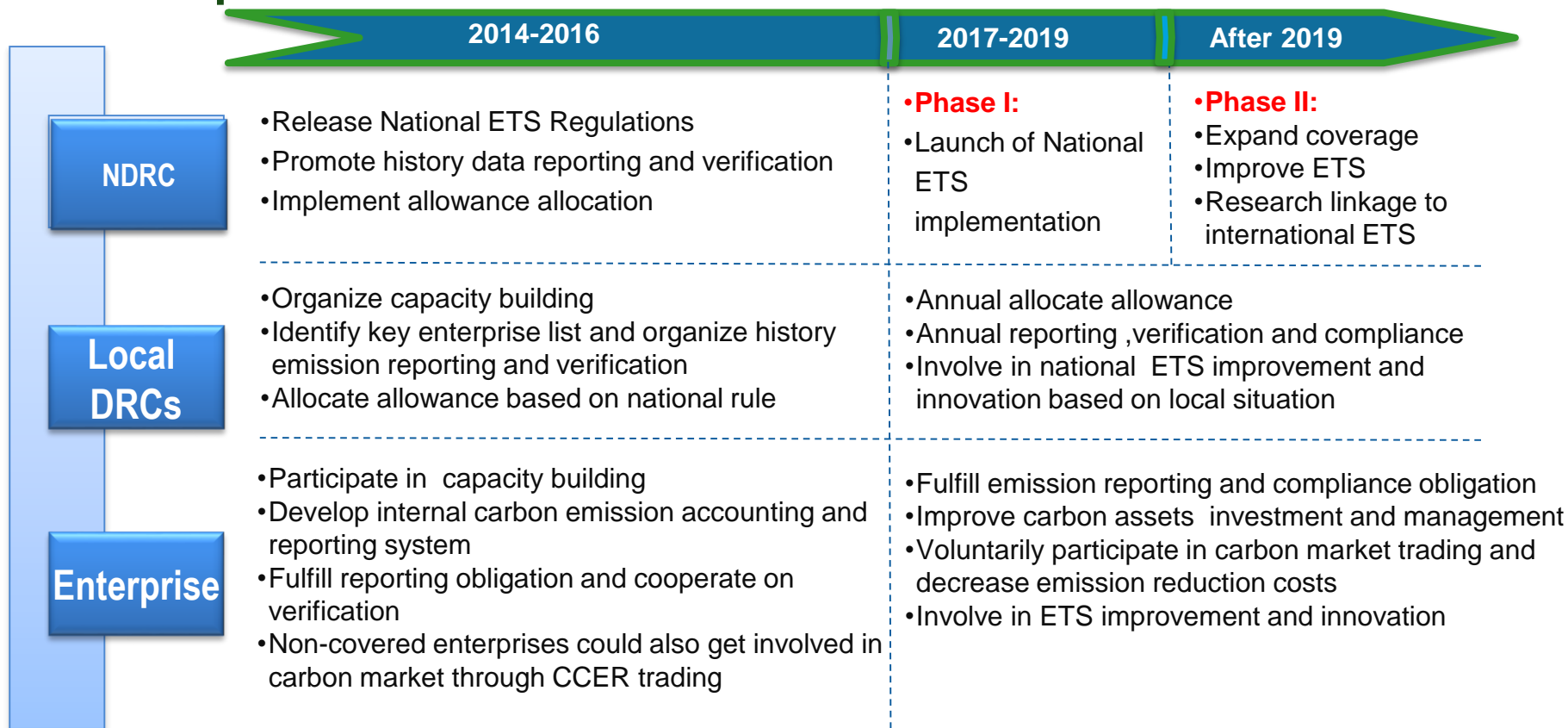
Accelerated Growth in Green Finance Market

- On Aug 31, 2016, China issued the Guidance on Building Green Financial System, bringing green finance into the outlook of state strategy.
- China's green bonds reached 157.13 billion yuan in 2016, offshore green bonds accounts for 11.08% , 1.67% and 9.41% are from London Stock Exchange and Luxembourg Stock Exchange.



Products	Period	Scale	Note
Green Credit	By the end of 2015	7.01 trillion yuan balance	Year-on-year rise: 16.4%
Green Index	October, 2015	16 CSI Environmental Protection index	2% of the whole A-share market index (about 800)
Green Funds	October, 2015	32 environmental protection funds	
Green Bonds	2015~2016	161.87 billion yuan	2016: 157.13 billion yuan

Roadmap of National ETS



Regulatory Authorities

NDRC		Local DRCs
Decide coverage scope and threshold	Coverage	Produce and update list of covered enterprises
Setting the ETS cap	The cap	-
Decide the national allocation plan and methodologies of allocation	Allocation	Distribute free allowances to covered enterprises based on national allocation plan
Establish methodologies and standards	MRV	Organize data reporting and verification
Set compliance rules, including punitive measures	Compliance	Compliance enforcement and management
Establish and manage the system	Registration System	Manage provincial-level Registries activities.
Establish trading rules, specify the trading institution	Trading	supervise the transactions within the region

Scope and Coverage

- ◆ Threshold: annual energy consumption exceeds 10,000 tce, or approximately annual CO2 emissions exceeds 26,000 tons, in any year from 2013 to 2015
- ◆ Compliance entities: enterprises
- ◆ Covered Gases: CO2
- ◆ Both direct and Indirect emissions are accounted

Sector	Subsector
Petrochemical	Crude processing Ethylene production
Chemical	Chemical raw material /Fertilizer/ Pesticide Production /Synthetic material
Building Material	Cement clinker production Plate glass production
Iron and Steel	Crude steel production/Steel rolling
Nonferrous Metal	Electrolytic aluminum Copper smelting
Paper making	Pulp production Paper making
Power	Generation Cogeneration Grid
Aviation	Passenger air transport Air cargo transport Airports

Actively Explore Green Supply Chain Mechanism

On March 17th, 2016, 13th Five-Year Plan for National Economic and Social Development of the People's Republic of China

–Accelerate the construction of the green supply chain industry system

On August 31th, 2016, the People's Bank of China and six other agencies jointly issued Guidelines for Establishing the Green Financial System

–Conduct the green supply chain management

On September 20th, 2016, the Ministry of Industry and Information Technology issued Notice of conducting the construction of green manufacturing system

–Green supply chain was one of the key point contents

Undertake Government Green Procurement

According to 2015 statistics

- ◆ Energy-saving products totaled 134,63 billion yuan, accounting for 71.5% of the same kind of products purchased.
- ◆ Environmental products totaled 136 billion yuan, accounting for 81.5% of the same kind of products purchased.

The government departments of China are actively conducting research on carbon taxing, in order to support carbon index pricing

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Tianjin Practice on Green Development

Target System and Key Areas of Tianjin on Environmental Protection and Climate Change

Tianjin City



Basic

- The 4th largest city of China
- A history of 610 years
- More than 15 million population
- GDP reached RMB1.65 trillion in 2015
- 137 kilometers southeast of Beijing.
- It takes only 30 minutes to Beijing by the high speed inter-city train.
- Area: 11.95 thousand square kilometers

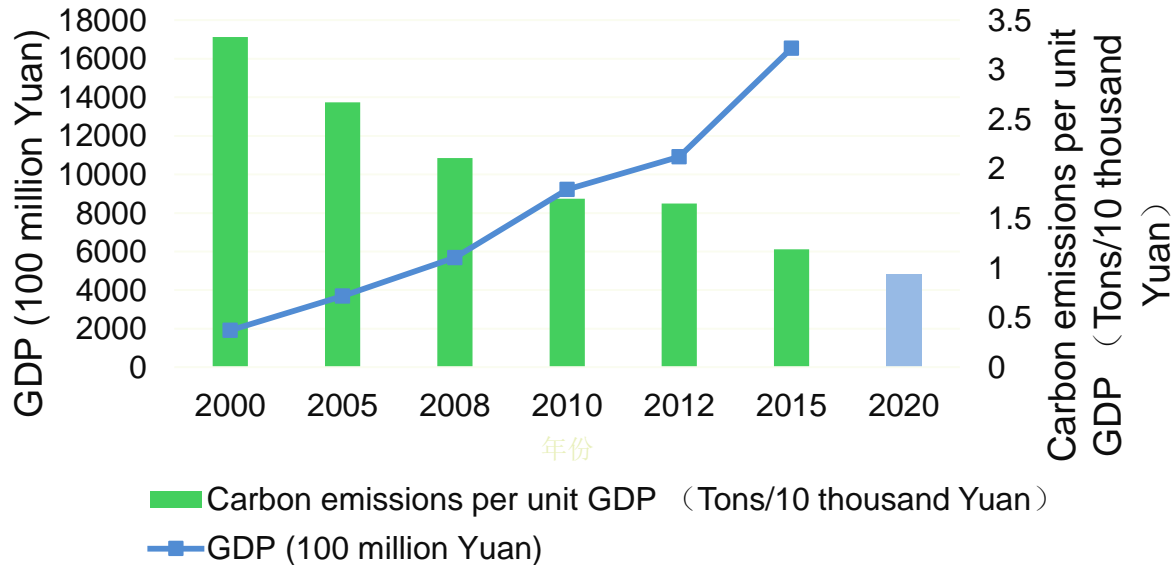
Positioning

- Advanced Manufacturing Base;
- International Shipping Center;
- Financial Innovation Demonstration Area;
- Pilot Zone of Reform and Opening-up

Target System and Key Areas of Tianjin on Environmental Protection and Climate Change

Tianjin is still facing a great challenge of emission reduction

The National 13th Five-Year Work Plan for Controlling Greenhouse Gas Emissions: Tianjin needs to reduce 20.5%(41.3 million tons estimated).



Key Areas and Targets

The transformation of green and low carbon industry	To control high carbon industry	Steel production, cement clinker production capacity, coal-fired units installed capacity were controlled under 20 million tons, 5 million tons and 14 million KWH respectively
	Carbon emission in key industries	The average coal consumption should be dropped to about 305 g standard coal per KWH
Low carbon development for energy system	Energy and coal consumption	The proportion of coal consumption can be dropped to below 45%
	Fossil energy consumption structure	The energy consumption can be increased to over a third of the total electricity consumption
	The proportion of non-fossil energy consumption	Non-fossil energy capacity can be reached to above 2 million kw and the total amount of electricity produced by renewable energy is above 10% of the whole society of electricity.
Green building	Low carbon construction	All of Civil construction is applied by green building standards and 30% of them are 2star building or above.
Low carbon traffic	Develop low carbon traffic	Public transportation can be increased to 60% and above 35% of public transportation is rail transit.
	New energy traffic tools	60% of newly added public buses use new energy and clean energy.
Low carbon lifestyle	Low carbon mobility	Actively advocate green mobility, walk in one km, take a bike in 3km, take public transportation in 5 km.
	Forest carbon sinks	a total area of 1.7 million mu forest

Tianjin Promotes Emissions Trading Markets Construction

Sulfur Dioxide(SO₂) Emissions Trading

- The Work Plan to Develop Tianjin Emissions Trading Markets was issued on August 30th,2011
 - According to the amount of pollutant emissions and the 12th five-year plan for emission reduction, Sulfur Dioxide(SO₂) emissions trading was firstly started in Tianjin

Carbon Emissions Trading Market

- Interim Measures of Tianjin Municipality for Carbon Emissions Trading was issued in June, 2016

Emissions Trading Market

- Tianjin Climate Exchange (the first Climate Exchange in China) was established on September 25th, 2008
- The first voluntary carbon exchange was completed in Febraury, 2010. Citigroup and Gazprom concluded the first pilot transaction, buying 1,500. Carbon Emissions Allowances

Green Supply Chain

- In 2013, China Council for International Cooperation on Environment and Development (CCICED) carried out green supply chain policy pilot program, with Tianjin being the pilot center. It is the first policy pilot program in 21 years since the establishment of CCICED.

- Tianjin government has released a series of guidelines on Green Supply Chain:

Development Scheme of Tianjin Pilot Center

Interim Measures of Tianjin Green Supply Chain Management

Tianjin Green Supply Chain Work Guidelines

Measures of Tianjin Pilot Center on the Administration of Website and Registration Platform

Administrative Measures of Tianjin Government Procurement of Green Supply Chain

Measures of Tianjin Municipality on Green Building Material and Equipment Evaluation

- Established Tianjin Green supply chain Standard Technical Committee
- Green Supply Chain Standard issued for the first time in China

Launching Workshop of APEC GSCNET Tianjin Pilot Center



In June 2015, APEC Cooperation Network on Green Supply Chain (GSCNET) Tianjin Pilot Center Officially Launched

APEC Cooperation Network on Green Supply Chain

Official Website of APEC GSCNET

- ◆ <http://www.apecgsc.org>
- ◆ The website of APEC GSCNET was launched and will be added to the APEC website.

Official Website of APEC GSCNET Tianjin Pilot Center

- ◆ <http://cn.apecgsc.org>
- ◆ Completed a website of Tianjin Pilot Center with nearly twenty million characters of data on green supply chain

GPT Green Procurement Evaluation Platform

客服热线：400-6575852

请登录 免费注册

GPT 绿色采购评价平台

首页 方法介绍 自我评价 供应商查询

绿色采购工具介绍

绿色采购工具 (GPT) 应用国际的产品可持续性评估方法论,以产品的全生命周期视角来对其绿色供应链的各个节点进行基础研究,并在研究基础上选择对社会、环境和经济影响最关键的环节的问题而形成,旨在为采购方(政府和企业)提供一个供应商评价和管理的指南,帮助实现绿色供应链管理的可操作化及降低管理风险。

[自我评价](#)

可持续发展联盟

TSC是一个全球性的产学研联合体,从科学和商业的交叉领域,致力于促进消费品行业开发、生产和销售更具可持续性的产品。TSC以科学研究为基础,开发一系列的工、战略和服务,由不同利益相关方共同参与,着重分析消费品在全生命周期产生的环境、社会和经济影响。TSC目前拥有来自各行各业的100多家会员机构,既包括各行业跨国公司,也包括跨领域非政府组织及学术机构,协同推动新一代产品和供应链网络的创新。

亚太经合组织 绿色供应链天津示范中心

天津绿色发展与绿色供应链管理服务中心作为亚太经合组织绿色供应链合作网络天津示范中心的工作机构,是中国首个绿色供应链管理市场化综合服务平台。中心是中国环境与发展国际合作委员会成立21年来首个政策示范项目绿色供应链管理示范项目的重要成果,在国合和环境部示范中心等指导下,致力于开发和提供绿色供应链管理专业市场服务,探索绿色产品和服务的贸易投资新机制。

已加入的供应商

日期	公司名称	行业	评分/星级
2016.10.12	上海新园实业有限公司 公开	木质家具	32.7 ★★★★★ 自评

<http://gpt.apecreg.org>

- ◆ The Green Procurement Tool (GPT) applies international evaluation methodology for product sustainability based on Life Cycle Assessment and develop a full set of economic, environmental and social indicators with corresponding solution recommendations, which will be represented via a user-friendly IT-based questionnaire (KPIs) & scorecard interface for use.
- ◆ GPT aims to provide public and private buyers with an innovative supplier evaluation and management guidance, to achieve visualization of green supply chain management and risk reduction.
- ◆ GPT is a localization of sustainable supply chain management tool widely utilized by Walmart

Green bidding and purchasing platform (Twigreen)



- ◆ Functions: 20 core functions covering e-bidding, green evaluation, consultation...
- ◆ Customization and consolidation based on buyers green needs
- ◆ To achieve the goal of sustainable development, carbon reduction and resource conservation through green consultation and bid evaluation.
- ◆ A complete process of online bidding service

Actively Promote Government Green Procurement

Tianjin Government Procurement Center

Government
Procurement
Agreement

Fixed - point
procurement

Purchase
Order

Bulk
Procurement

- Saved energy of 50 million KWH and reduced CO2 emissions of 170,000 metric tons by 2012
- Tianjin issue *Regulations of Tianjin Municipality for Green Supply Chain Government Procurement* and take the lead to promote procurement of green supply chain products
- Increase the proportion of preferred procurement and explore mandatory procurement

APEC Green Supply Chain Excellent Case Center

The first green supply chain excellent case center:

- ◆ Covering exhibition, experience and trading of green products and innovative technologies
- ◆ High visualization
- ◆ Predominant exhibition conditions
- ◆ Convenient traffic
- ◆ Large flow of people



APEC Green Supply Chain Excellent Case Center



In July 2016, the first APEC Green Supply Chain Excellent Case Center Launched in Tianjin.

Strategic Cooperation Memorandum was signed in Tianjin Free Trade Zone CBD with the first batch of cooperative organizations to jointly develop the APEC Green Supply Chain Excellent Case Center. The signing ceremony marked the overall startup of the Excellent Case Center construction.

Facilitate Green Finance

Build the green credit evaluation system of contract energy management

Carry Out Green Credit Evaluation in the Construction Industry

01

Real estate enterprises

02

Construction engineering design enterprises

03

Construction contracting enterprises

04

Building materials and equipment manufacturing enterprises

Released Green Supply Chain Index of Chinese Estate Companies

The world's first green supply chain index research report of listed companies released on Oct. 24th 2016

- ◆ Three-level index evaluation model
- ◆ Green construction capacity, green supply chain management, environmental impact, resource conservation and carbon emission.
- ◆ Evaluated 132 real estate enterprises, and published ***Green Supply Chain Index top 50***



Cooperation Expectations

1. Reply on green supply chain for Sino-US green finance cooperation promotion, including offshore green bond; co-establish green investment fund and advance supply chain finance cooperation; explore the cooperation in the offshore carbon market area.
2. Facilitate connectivity of green and low carbon data by website interlink and information sharing. Support Tianjin and Tianjin pilot center to join the Joint Declaration on Harnessing the Data Revolution for Climate Resilience.
3. Welcome industrial association and cities in the US to join APEC GSCNET, China and US to lead green supply chain development through Close collaboration
4. Welcome green supply chain related dialogue, workshop and visits of various types, identify green supply chain best practices from the US enterprises and promote them to the Asia-Pacific region.
5. Co-construct green procurement cross-border cooperation platform, facilitating advanced low carbon and eco-protection technologies in the US to enter Chinese market.

THANK YOU

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