

**INTERNATIONAL INNOVATION BEST PRACTICES:
RECOMMENDATIONS FOR CHINA'S INNOVATION
INCENTIVE POLICIES**

March 30, 2010



Executive Summary and Recommendations

- China, like all countries, seeks to encourage innovation to promote its economic and scientific development.
- Most countries use a combination of non-discriminatory tax incentives and research and development (R&D) support programs to foster innovation.
- China's intent to use discriminatory government procurement preferences and tax incentives that require domestic intellectual property ownership to encourage innovation is inconsistent with international best practices.
- None of the "Top Ten Innovative Countries and Regions," as ranked in Boston Consulting Group study, use government procurement preferences to promote innovation or require domestic intellectual property ownership and trademarks to participate in innovation programs.

The US-China Business Council (USCBC) recommends that China:

- Use non-discriminatory tax incentives and R&D support programs to promote innovation.
- Refrain from using government procurement programs and preferences to foster innovation, and revise central and local policies and regulations accordingly.
- Ensure that programs to encourage domestic innovation, such as high- and new-technology enterprise (HNTE) tax status or R&D support programs, are non-discriminatory in principle and in practice. Specifically, in its qualification criteria for these programs, USCBC recommends that China:
 - Eliminate the requirements for intellectual property rights "ownership" in China; or expand the criteria to include legally acquired, non-exclusive licensee or usage rights from Chinese or overseas intellectual property owners, and secondary innovation in China using technology licensed or otherwise legally acquired from Chinese or overseas intellectual property owners;
 - Remove references to trademarks and brands;
 - Eliminate "import substitution" as a policy objective; and
 - Make corresponding and consistent changes to other relevant policies.
- Ensure that policies and regulations on innovation, government procurement, tax incentives, or other matters are released for public comment for at least 30 days before finalization and enactment. A longer comment period of 60 or 90 days would result in even better public comments on this important topic for the consideration of China's government agencies.

USCBC is confident that these changes would result in more effective incentives to develop innovation in China.



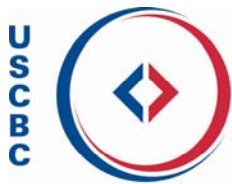
THE US-CHINA BUSINESS COUNCIL

美中贸易全国委员会

1818 N Street, NW Suite 200 Washington, DC 20036-2470 USA
Tel: 202-429-0340 Fax: 202-775-2476 www.uschina.org

TABLE OF CONTENTS

Overview of International Innovation Incentive Policy Best Practices	4
International Innovation Index.....	6
Overview of Innovation Incentives in the Top 10 Innovative Countries and Regions.....	7
Examples of South Korea’s Support for Innovation.....	11
Examples of US Government Support for Innovation.....	12
Qualification Criteria for China’s High- and New-Technology Enterprise (HNTE) Status	19
Qualification Criteria for China’s Circular 618 on Launching the 2009 National Indigenous Innovation Product Accreditation Work	21
USCBC Comments on China’s Draft Government Procurement Law Implementing Regulations.....	24
Import Substitution References in China’s November 2009 Circular 618 and December 2009 Catalogue of Industrial Equipment Products Targeted for Development	28



OVERVIEW OF INTERNATIONAL INNOVATION INCENTIVE POLICY BEST PRACTICES

The following is an overview of international best practices used by governments to foster innovation.

Tax Credits

- According to the Boston Consulting Group (BCG), research and development (R&D) tax credits are among the most common incentives that countries use to promote innovation. BCG's analysis found a positive relationship between R&D tax programs, GDP growth, and performance on the International Innovation Index. Nineteen of the top twenty most innovative countries and regions under BCG's metrics have R&D tax credit programs.¹
- According to the Organization for Economic Cooperation and Development (OECD), tax credits are the most effective way to stimulate R&D. Increasing R&D tax incentives not only spurs companies to spend more on R&D, but it is also "the most influential of all forms of government support."²
- Germany, whose innovation-related procurement policies are explained more fully below, has determined that tax-based R&D support would have positive effects on the country's innovation objectives.³
- The United States uses tax credits extensively to promote innovation. These credits are available to any company incorporated in the United States, regardless of ownership nationality, and have spurred significant R&D investment in the United States. According to the Organization for International Investment, US subsidiaries of foreign companies spent \$39.8 billion on US R&D activities in 2008, up from \$34.3 billion the previous year.⁴
- China's most significant innovation tax incentive, the High- and New-Technology Enterprise (HNTE) program, includes a provision that requires core intellectual property rights to be owned in China. This ownership requirement is contrary to international practice and likely limits the effectiveness of the HNTE program in attracting foreign R&D investment to China.

¹ *The Innovation Imperative in Manufacturing*, James P. Andrew, Emily Stover DeRocco, and Andrew Taylor, The Boston Consulting Group, March 2009, p. 19.

² *OECD Reviews of Innovation Policy: Korea*, Organization for Economic Cooperation and Development, July 2009, p. 239.

³ *Research and Innovation for Germany: Results and Outlook*, Federal Ministry of Education and Research, September 2009, p. 84.

⁴ Insourcing Statistics, Organization for International Investment. <http://www.ofii.org/insourcing-stats.htm>.

Procurement

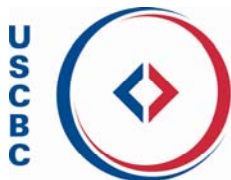
- Some countries, such as Germany, have used government procurement policies to promote innovation, including preferences for purchases of new, emerging, or innovative products. No country, however, is known to use domestic intellectual property ownership or trademarks as the basis for participation in procurement programs.
- Although Germany, which ranks 19th on the International Innovation Index, uses government procurement to promote new, resource-efficient products and technologies, it does not require domestic ownership of intellectual property, as China's Indigenous Innovation qualification criteria do.

Standards and Protection of Intellectual Property Rights

- Germany cites the use of internationally accepted standards as a particularly important aspect of its innovation policies. These policies ensure the commercialization and marketability of new, innovative products. As a result of these policies, Germany has 14 percent of the world market for R&D-intensive goods and ranks first in sales of high-value technology.⁵ If China seeks to be an internationally competitive innovative country, it should avoid using unique standards that are not harmonized with international standards.
- BCG also found that protecting the intellectual property associated with innovative goods and services is a top concern for business executives, who curtail innovation activities in countries where intellectual property protection is insufficient.⁶ Continued improvement of intellectual property rights enforcement at all levels in China would create an environment that will both enhance local development and adoption of international R&D and innovation.

⁵ *Research and Innovation for Germany: Results and Outlook*, p. 84.

⁶ *The Innovation Imperative in Manufacturing*, p. 19.



INTERNATIONAL INNOVATION INDEX⁷

Rank	Country/Region	Overall Score	Innovation Inputs Score	Innovation Performance Score
1	Singapore	2.45	2.74	1.92
2	South Korea	2.26	1.75	2.55
3	Switzerland	2.23	1.51	2.74
4	Iceland	2.17	2.00	2.14
5	Ireland	1.88	1.59	1.99
6	Hong Kong	1.88	1.61	1.97
7	Finland	1.87	1.76	1.81
8	United States	1.80	1.28	2.16
9	Japan	1.79	1.16	2.25
10	Sweden	1.64	1.25	1.88
19	Germany	1.12	1.05	1.09
27	China	0.73	0.07	1.32

Source: Boston Consulting Group, *The Innovation Imperative in Manufacturing*, March 2009

- None of the world’s top ten innovative countries and regions are known to use government procurement preferences to promote innovation.
- None of the world’s top ten innovative countries and regions are known to base participation in innovation incentive programs on domestic ownership of intellectual property rights or trademarks.
- Non-discriminatory tax credits and direct subsidies for research and development are the most common forms of innovation incentives.
- Germany, which uses non-discriminatory procurement policies to promote innovation, ranks 19th globally.

⁷ Each input score is based on a number of factors. “Innovation Inputs” is based on government policies related to R&D (including fiscal, tax, education, immigration, and infrastructure policies), as well as an overall assessment of the innovation environment. The “Innovation Performance” metric is based on the tangible economic impact of R&D, including metrics for publications, IP registration, high-tech exports, labor productivity, and growth of employment and investment.



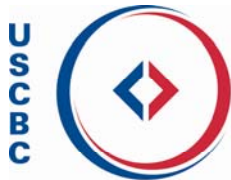
OVERVIEW OF INNOVATION INCENTIVES IN THE TOP 10 INNOVATIVE COUNTRIES AND REGIONS

Country/Region	Measure	Eligibility	IP Requirement	Sources
Finland	<p>Primary incentives for innovation are through directed subsidies, such as grants through the Finnish Funding Agency for Technology and Innovation (Tekes).</p> <p>Tax deduction for expenses, including R&D, related to income-producing products. Finland also allows a deduction for purchasing or constructing buildings and other tangible property related to research and development (R&D).</p>			<ul style="list-style-type: none"> Michael Rashkin, "Practical Guide to Research and Development Tax Incentives--Federal, State, and Foreign," 2007 Taxand, "Global Guide to R&D Tax Incentives," July 2009
Hong Kong	<p>Tax deduction for expenses related to R&D in the year in which they are incurred.</p> <p>In addition, Hong Kong's low corporate income tax rate acts as an incentive for companies to conduct R&D there.</p>			<ul style="list-style-type: none"> Taxand 2009 Rashkin 2007
Iceland	Primary emphasis of R&D support is direct government support of research.			<ul style="list-style-type: none"> Pro Inno Europe, "Innovation Policy Progress Report: Iceland," 2009
Ireland	25% tax credit on incremental expenditures calculated with		Companies are entitled to the R&D tax credit even if they	<ul style="list-style-type: none"> Ernst & Young, "Research and

Country/Region	Measure	Eligibility	IP Requirement	Sources
	reference to base year 2003, in addition to any existing deductions or tax depreciation. This results in an effective benefit of up to 37.5% based on Ireland's 12.5% corporate income tax. Capital expenditures on scientific research may also qualify for a separate 100% initial allowance.		do not own the intellectual property (IP) rights.	development tax credits," June 2009 <ul style="list-style-type: none"> • Rashkin 2007 • Taxand 2009
Japan	Corporations may claim two credits, generally equal to 5% of certain incremental R&D expenditures in a year and 8-10% of total R&D expenditures in a year, subject to a limitation of 20% of the corporate tax due for the year. The excess can be carried forward for one year. A small- or medium-sized enterprise (SME) may also choose a credit equal to the lesser of 15% of all its R&D expenses for the current year or 20% of its national corporate income tax due.			<ul style="list-style-type: none"> • Ernst & Young, "International R&D Tax Incentives," April 2008 • Taxand 2009
Singapore	100% tax deduction for qualifying R&D expenses, but companies may also be eligible for a double deduction of 200% if the project meets certain criteria. Qualifying companies are eligible for a full exemption from corporate and income		The R&D and Intellectual Property Management Hub Scheme offers a five-year tax holiday for foreign-sourced royalty or interest income earned from Singapore-based R&D.	<ul style="list-style-type: none"> • Ernst & Young 2008 • Rashkin 2007

Country/Region	Measure	Eligibility	IP Requirement	Sources
	<p>taxes for seven years, followed by a 50% reduction for the next three years. Local governments can extend the exemption up to 15 years.</p> <p>Salary and wages paid to foreign R&D workers are exempt from income tax for up to five years.</p>			
South Korea	<p>3% deduction for R&D expenses in the current tax year plus 50% of the ratio of R&D spending to gross sales, or 50% of the incremental increase in the average R&D spending over the previous four years and 40% of the incremental increase in the average outsourced R&D spending over the prior four years.</p> <p>Additional incentives are available for R&D in the environmental sector.</p> <p>SMEs can recover up to 75% of the expense of developing new products or enhancing product quality.</p>			<ul style="list-style-type: none"> • Ernst & Young 2008 • Organization for Economic Cooperation and Development (OECD), “OECD Reviews of Innovation Policy: Korea,” July 2009 • Taxand 2009
Sweden	<p>Business-related R&D expenditures are tax deductible at variable rates depending on the nature of the activities.</p>			<ul style="list-style-type: none"> • Taxand 2009
Switzerland	<p>R&D costs are tax deductible as commercially justified expenses.</p>			<ul style="list-style-type: none"> • OECD, “OECD Reviews of Innovation Policy: Switzerland,” November

Country/Region	Measure	Eligibility	IP Requirement	Sources
	R&D subsidies, grants, and loans may also be available from cantons (local governments).			2006 <ul style="list-style-type: none"> • Taxand 2009
United States	Combination of tax and investment incentives and direct financial support. See “Examples of US Support for Innovation.”	In general, any company conducting activities in the United States is eligible to receive benefits.	No IP ownership requirements.	See citations in “Examples of US Support for Innovation” (pp. 12-18 of this packet).



THE US-CHINA BUSINESS COUNCIL

美 中 贸 易 全 国 委 员 会

1818 N Street, NW Suite 200 Washington, DC 20036-2470 USA
Tel: 202-429-0340 Fax: 202-775-2476 www.uschina.org

EXAMPLES OF SOUTH KOREA'S SUPPORT FOR INNOVATION⁸

“Korea has performed exceptionally well over the last few decades playing catch up with the world's leading economies, and it has instigated waves of upgrading to become a world leader in some of the most high technology industries.... This success has few parallels around the world.”⁹

Tax credit for research and labor force development costs

Ex post credit against corporate tax or income tax on research and labor force development for each taxable year.

Article 10, Tax Exemption Limitation Act

Tax credit for equipment investment related to research and labor force development

Credit against tax on equipment investment related to research and development (R&D), labor force development, or new technology commercialization.

Article 11, Tax Exemption Limitation Act

Income tax credits for R&D activity costs of small- and medium-sized enterprise (SME) researchers

Credit against taxable income if personnel in charge of research at an SME research institute receive funds for research activity expenses per wage regulations.

Article 38, Enforcement Decree of the Income Tax Act

Customs exemption or reduction for goods for industrial technology R&D

Reduction and exemption for 80 percent of the customs duty imposed on machines, tools, and materials for R&D for specific types of advanced machines, tools, and materials imported and reagents, parts, goods, raw materials and samples for R&D.

Article 90, Customs Act

⁸ *OECD Reviews of Innovation Policy: Korea*, Organization for Economic Cooperation and Development, July 2009, p. 238.

⁹ *Ibid*, p. 13.

EXAMPLES OF US GOVERNMENT SUPPORT FOR INNOVATION

US federal and state governments provide various innovation incentives, just as China's central and provincial governments do. The basis of US incentives has a consistent approach, however – tax credits and research and development (R&D) grants. The following contains a list of support available from the US federal government. Details of similar support programs available on the state level are also available upon request.

Investment Incentives

Clean Energy Loan Guarantee Program

Summary: Loan guarantees for qualified projects that accelerate commercial use of new or improved clean energy technologies will help to sustain economic growth, yield environmental benefits, and produce a more stable and secure energy supply.

Eligibility: Project must be located in the United States and employ a new or significantly improved technology that is not a commercial technology. There are no restrictions on nationality of applicants. There are no intellectual property (IP) ownership requirements, but the US government retains the rights to access the IP of the project if the borrower defaults on its loan so that the project may be completed by another party.

72 Federal Register 60135

Solar America Initiative

Summary: Technical assistance for large, high-visibility solar installation projects that have the ability to impact the market for solar technologies through large project size, use of a novel solar technology, and/or use of a novel application for a solar technology.

Eligibility: Domestic and foreign entities are allowed to participate. There are no IP ownership requirements.

[\[center.doe.gov/iips/faopor.nsf/8373d2fc6d83b66685256452007963f5/96a844a71a8ae1a48525754c0068e46b?OpenDocument\]\(http://e-center.doe.gov/iips/faopor.nsf/8373d2fc6d83b66685256452007963f5/96a844a71a8ae1a48525754c0068e46b?OpenDocument\)](http://e-</u></p></div><div data-bbox=)

Financial Support

Environmental Quality Incentive Program (EQIP)

Summary: Conservation program for farmers and ranchers that promotes agricultural production and environmental quality as compatible national goals and provides financial assistance to implement conservation practices.

Eligibility: Owners of land in agricultural production or persons who are engaged in livestock or agricultural production on eligible US land may participate in the EQIP program. Program practices and activities are carried out according to an EQIP program plan of operations developed in conjunction with the producer that identifies the appropriate conservation practice

or measures needed to address the resource concerns. The practices are subject to Natural Resources Conservation Service (NRCS) technical standards adapted for local conditions.
<http://www.nrcs.usda.gov/programs/eqip//>

National Institute of Standards and Technology (NIST) Small Business Innovation Research Program

Summary: R&D contracts for small businesses that commercialize NIST discoveries.

Eligibility: Awardees must operate in the United States, be at least 51 percent owned and controlled by one or more US citizens, and have no more than 500 employees.¹⁰ The program provides licenses to NIST patents and technologies to awardees to develop products but does not limit who can own the IP of the new products.

http://tsapps.nist.gov/ts_sbir/

NIST Technology Innovation Program (TIP)

Summary: Supports, promotes, and accelerates innovation in the United States through high-risk, high-reward research in areas of critical national need. The program funds cost-shared R&D projects by single small- or medium-sized businesses and joint ventures. Previous competitions have focused on civil infrastructure and the use of advanced materials in manufacturing.

Eligibility: In broad terms, to receive funding from TIP, a company must be incorporated in the United States and do the majority of its business in the United States. The company may be owned by a parent company incorporated in another country, but in that case, NIST must determine that the company's participation in TIP would be in the economic interest of the United States and that the parent company is incorporated in a country which affords comparable opportunities to US-owned companies and affords adequate and effective protection for the intellectual property rights of US-owned companies.¹¹

http://www.nist.gov/tip/tip_fact_sheets/tip_fact_sheets.html

National Institutes of Health (NIH) Small Business Technology Transfer Grants

Summary: Provides small businesses with grants to commercialize products using NIH R&D.

Eligibility: Awardees must operate in the United States, be at least 51 percent owned and controlled by one or more US citizens, and have no more than 500 employees.¹²

<http://grants.nih.gov/grants/guide/pa-files/PA-10-051.html>

NIH, Centers for Disease Control and Prevention (CDC), Food and Drug Administration (FDA), and Administration for Children and Families (ACF) Small Business Innovation Research Grants

Summary: Provides small businesses with grants to contribute research technological expertise to research projects at NIH, CDC, FDA, and ACF.

Eligibility: Awardees must operate in the United States, be at least 51 percent owned and controlled by one or more US citizens, and have no more than 500 employees.¹³

http://grants.nih.gov/grants/funding/sbir_announcements.htm

¹⁰ Note that this program has US ownership requirements, since the technology used in these projects was created by US Government research.

¹¹ Note that this program has US ownership and reciprocity requirements.

¹² Note that this program has US ownership requirements, since the technology used in these projects was created by US Government research.

Tax Incentives

R&D Tax Credit¹⁴

Summary: Provides tax credits for qualified R&D expenditures through three programs. The first, the normal Research Credit, allows a maximum 10% incremental credit (a nominal 20% credit) for qualified R&D expenditures in excess of a calculated base amount. The second, the Alternative Simplified Credit (ASC), provides companies with a credit of 12% of R&D expenditures that exceed 50% of average R&D expenditures over the prior three years. The third, the Alternative Incremental Research Credit (AIRC) combines a three-tiered, fixed-base percentage with a reduced three-tiered credit percentage. The business deduction for R&D expenses must be reduced by the amount of any R&D credit.

Eligibility: Foreign companies are eligible to participate in the program.

Section 41(a), 41(c)(4), and 41(c)(5) of the US Tax Code

Energy-Efficient Appliance Tax Credit for Manufacturers

Summary: Gives tax credit to manufacturers of energy-efficient dishwashers, clothes washers, and refrigerators.

Eligibility: The tax credit is only for appliances manufactured in the United States. Domestic and foreign corporations are eligible for the tax credit provided they manufacture the appliances in the United States. There are no IP ownership requirements.

Section 45(M) of the US Tax Code

Qualifying Advanced Energy Manufacturing Investment Tax Credit

Summary: Provides tax credits to projects that help develop a US-based renewable energy manufacturing.

Eligibility: Credits awarded based on which projects provide the greatest number of jobs in the United States. Domestic and foreign corporations are allowed to participate, and manufacturing must be US-based. There are no IP ownership requirements.

Section 48(C) of the US Tax Code

Renewable Electricity Production Tax Credit

Summary: Provides an income tax credit for the production of electricity from qualifying facilities. Qualifying facilities include wind energy facilities, closed-loop biomass facilities, open-loop biomass facilities (including agricultural livestock waste nutrients), geothermal energy facilities, solar energy facilities, small irrigation power facilities, landfill gas facilities, trash combustion facilities, hydropower facilities, advanced nuclear power facilities, and unrefined coal from Indian reservations.

Eligibility: Facility must be located in the United States. Foreign corporations must have a taxable subsidiary producing the energy in the United States. There are no IP ownership requirements.

Section 45 of the US Tax Code

¹³ Note that this program has US ownership requirements, since the technology used in these projects was created by US Government research.

¹⁴ The R&D Tax Credit expired on December 31, 2007.

Tax Credit for Producing Fuel from a Non-Conventional Source

Summary: Companies selling qualifying fuels from non-conventional sources are eligible for an income tax credit. Qualifying fuels include oil produced from shale and tar sands; gas produced from geopressured brine, Devonian shale, coal seams, tight formations, or biomass; and liquid, gaseous, or solid synthetic fuels produced from coal.

Eligibility: Fuel must be produced in the United States. Foreign corporations must have a taxable subsidiary in the United States. There are no IP ownership requirements.

Section 29 and 45(K) of the US Tax Code

Business Solar Investment Tax Credit

Summary: A nonrefundable, 10 percent business energy credit for the cost of new equipment (1) that uses solar energy to generate electricity, to heat or cool a structure, or to provide solar process heat, or (2) that is used to produce, distribute, or use energy derived from a geothermal deposit, but only, in the case of electricity generated by geothermal power, up to the electric transmission stage.

Eligibility: Property must be located in the United States. Foreign corporations must have a taxable subsidiary in the United States. There are no IP ownership requirements.

Section 48 of the US Tax Code

Tax Credit for Installation of Alternative Fuel Refueling Property

Summary: Clean-fuel vehicle refueling property may be expensed and deducted when it is put into service.

Eligibility: Property must be located in the United States. Foreign corporations must have a taxable subsidiary in the United States. There are no IP ownership requirements.

Section 30(C) of the US Tax Code

Energy Research Tax Credit

Summary: Tax credit of up to 20 percent of the amount paid or incurred by the taxpayer in carrying on any trade or business of the taxpayer during the taxable year (including as contributions) to an energy research consortium for energy research.

Eligibility: Qualifying research must be undertaken for the purpose of discovering information that is technological, must be intended to be useful in the development of a new or improved business component, and must constitute elements of a process of experimentation for functional aspects, performance, reliability, or quality of a business component. The research must be undertaken by an “energy research consortium” that is either a tax-exempt section 501(c)(3) corporation organized and operated primarily to conduct energy research or any other organization organized and operated primarily to conduct energy research in the public interest. There are no IP ownership requirements.

Section 41(a), 41(b) and 41(f)(6) of the US Tax Code

Amortization of Atmospheric Pollution Control Facilities

Summary: US taxpayers may recover the cost of any certified pollution control facility over a period of 60 months.

Eligibility: Certification that the facility complies with appropriate standards is required by appropriate state and federal authorities. Foreign corporations must have a taxable subsidiary in the United States. There are no IP ownership requirements.

Section 169 of the US Tax Code

Seven-Year Amortization of Geological and Geophysical Expenditures for Certain Major Integrated Oil Companies

Summary: The costs of geological and geophysical expenditures, incurred to obtain and accumulate data used as the basis for acquisition and retention of minerals, may be amortized over a span of seven years.

Eligibility: Exploration is limited to the United States. Foreign corporations must have a taxable subsidiary in the United States. There are no IP ownership requirements.

Section 167(h) of the US Tax Code

Tax Credit for Production of Cellulosic Biofuel

Summary: Nonrefundable income tax credit of \$1.01 for each gallon of qualified cellulosic fuel, such as those from corn stover and switchgrass, produced in a taxable year.

Eligibility: Biofuel must be sold for use in the production of a qualified alcohol fuel mixture (other than casual off-farm production), for use as a fuel in a trade or business, or to a retail gas station; or used by the producer for any of the above purposes. Foreign corporations must have a taxable subsidiary in the United States. There are no IP ownership requirements.

Section 40 of the US Tax Code

Advanced Coal Project Tax Credit

Summary: Investment tax credit of 20 percent for power generation projects that use integrated gasification combined cycle (IGCC) or other advanced coal-based electricity generation technologies.

Eligibility: Project must be located in the United States and use an advanced coal-based generation technology to power a new electric generation unit or to retrofit or repower an existing unit. The fuel input for a qualifying project, when completed, must use at least 75 percent coal. Qualifying projects must have a generating capacity of at least 400 megawatts and a majority of the output must be reasonably expected to be acquired or utilized. Credits are available only for projects certified by the Secretary of the Treasury, in consultation with the Secretary of Energy. Foreign corporations must have a taxable subsidiary in the United States. There are no IP ownership requirements.

Section 48(A) of the US Tax Code

Coal Gasification Investment Tax Credit

Summary: Investment tax credit of 20 percent for power generation projects that convert coal, petroleum residue, biomass, or other materials into a synthesis gas composed primarily of carbon monoxide and hydrogen.

Eligibility: Qualified projects must be certified to be a domestic project that employs domestic gasification applications related to chemicals, fertilizers, glass, steel, petroleum residues, forest products, or agriculture, including feedlots and dairy operations. Credits are available only for projects certified by the Secretary of the Treasury, in consultation with the Secretary of Energy.

Foreign corporations must have a taxable subsidiary in the United States. There are no IP ownership requirements.

Section 48(B) of the US Tax Code

Tax Credit for Carbon Dioxide Sequestration

Summary: Petroleum extraction companies may deduct expenses incurred while applying a tertiary recovery method, including carbon dioxide augmented waterflooding and immiscible carbon dioxide displacement. In addition, companies may claim a credit of 15 percent of their qualified enhanced oil recovery costs, which include tertiary injectant expenses associated with an enhanced oil recovery (EOR) project.

Eligibility: The credit applies only to carbon dioxide capture, sequestration, or injection projects in the United States or one of its possessions. Foreign corporations must have a taxable subsidiary in the United States. There are no IP ownership requirements.

Section 45(Q) of the US Tax Code

Inclusion of Cellulosic Biofuel in Bonus Depreciation for Biomass Ethanol Plant Property

Summary: First-year depreciation tax deduction equal to 50 percent of the adjusted basis of qualified cellulosic biomass ethanol plant property. Qualified cellulosic biomass ethanol plant properties are those used solely to produce cellulosic biomass ethanol.

Eligibility: Property must be used in the United States. Foreign corporations must have a taxable subsidiary in the United States. There are no IP ownership requirements.

Section 168(l) of the US Tax Code

Clarification of Tax Credits for Fuel

Summary: Per-gallon incentives relating to alcohol (including ethanol), biodiesel (including agribiodiesel), renewable diesel, and certain alternative fuels, available only for fuels produced within the United States.

Eligibility: The clarification applies for all alcohol-based fuels. The producer of the fuels may be a foreign corporation with a US taxable subsidiary. There are no IP ownership requirements.

Sections 40, 40A, 6426 and 6427 of the US Tax Code

Alternative Motor Vehicle Tax Credit and Plug-In Electric Vehicle Tax Credit

Summary: Tax credit for each new qualified fuel cell vehicle, hybrid vehicle, advanced lean burn technology vehicle, and alternative fuel vehicle purchased by a taxpayer.

Eligibility: The vehicle must be used predominantly in the United States to qualify for the credit. Foreign corporations must have a taxable subsidiary in the United States. There are no IP ownership requirements.

Section 30(B) and 30(D) of the US Tax Code

Extension and Modification of Alternative Fuel Vehicle Refueling Property Tax Credit

Summary: 30 percent tax credit for the cost of installing qualified clean-fuel vehicle refueling property.

Eligibility: The credit may not exceed \$30,000 per taxable year per location, in the case of qualified refueling property used in a trade or business, and \$1,000 per taxable year per location, in the case of qualified refueling property installed on a principal residence. No credit is

available for property used outside the United States. Foreign corporations must have a taxable subsidiary in the United States. There are no IP ownership requirements.

Section 30(C) of the US Tax Code

Accelerated Recovery Period for Depreciation of Smart Meters and Smart Grid Systems

Summary: 10-year recovery period and 150 percent declining balance method for any qualified smart electric meter and any qualified smart electric grid system.

Eligibility: Systems must be based in the United States. Foreign corporations must have a taxable subsidiary in the United States. There are no IP ownership requirements.

Section 168 of the US Tax Code

Clean Renewable Energy Bonds

Summary: Clean Renewable Energy Bonds (CREBs) are a form of bond issued by state or local governments that require 95% of proceeds of the bonds to be used to finance qualified clean renewable energy projects, such as electrical generation facilities. Taxpayers holding CREBs are entitled to a federal tax credit in lieu of interest.

Eligibility: Qualified projects must be in the United States. Foreign corporations may hold CREBs, but must have a taxable subsidiary in the United States. There are no IP ownership requirements.

Section 54 of the US Tax Code

**QUALIFICATION CRITERIA FOR CHINA'S
 HIGH- AND NEW-TECHNOLOGY ENTERPRISE (HNTE) STATUS**

China offers a reduced corporate income tax rate of 15 percent to enterprises that qualify as High- and New-Technology Enterprises. According to the *Guidebook Managing Certification of High- and New-Technology Enterprises (HNTEs)* (released by the PRC Ministry of Science and Technology [MOST], Ministry of Finance [MOF], and State Administration of Taxation [SAT] on July 8, 2009), each provincial science and technology committee is to establish an office to manage HNTE certification, and the office is to create a pool of local technical and scientific experts to evaluate HNTE status applications. These experts would evaluate enterprises on four criteria, each worth a certain number of points, with a perfect score of 100 (see Table).

When an enterprise scores more than 70 points, a public notice would be posted, and if no objections are raised, the enterprise would be awarded HNTE status. Approvals from provincial science and technology commissions would then be filed with MOST in Beijing.

Evaluation Criteria for Enterprises Seeking HNTE Status

	HNTE status criteria	Maximum points
1	Core intellectual property	30
2	Technology commercialization ability	30
3	Research and development organizational management level	20
4	Enterprise growth rate	20
Total		100

“Core intellectual property” (IP) as mentioned in the list above is defined in Article 5, Section 1 of the guidebook:

“Core IP as determined in SAT’s regulations on HNTE status shall include: inventions, utility models, designs for non-simple alterations to product patterns and shapes (mainly indicating designs developed through research and development processes using applied science and engineering technology methods), software copyrights, exclusive rights to integrated circuit designs, and new plant varieties....”

An exclusive license referred to in this HNTE handbook refers to a global technology licensee enjoying exclusive usage rights for at least five years for the agreed and determined IP (patent, software copyright, exclusive right to an integrated circuit design, new plant variety, etc.); within this period, the

technology provider and any third party are prohibited from using that technology.

Core IP designated by high- and new-technology enterprises must be registered in China, or must enjoy at least five years of global exclusive licensing rights (with the effectiveness of high- and new-technology enterprises falling within the five or more years of the exclusive licensing agreement), and should be within the effective protection period under Chinese law.”

“《认定办法》规定的核心自主知识产权包括：发明、实用新型、以及非简单改变产品图案和形状的外观设计（主要是指：运用科学和工程技术的方法，经过研究与开发过程得到的外观设计）、软件著作权、集成电路布图设计专有权、植物新品种。。。

本《工作指引》所称的独占许可是指在全球范围内技术接受方对协议约定的知识产权（专利、软件著作权、集成电路布图设计专有权、植物新品种等）享有五年以上排他的使用权，在此期间内技术供应方和任何第三方都不得使用该项技术。

高新技术企业认定所指的核心自主知识产权须在中国境内注册，或享有五年以上的全球范围内独占许可权利（高新技术企业的有效期应在五年以上的独占许可期内），并在中国法律的有效保护期内。”



**QUALIFICATION CRITERIA FOR CHINA'S CIRCULAR 618
ON LAUNCHING THE 2009 NATIONAL INDIGENOUS INNOVATION
PRODUCT ACCREDITATION WORK**

China's Circular 618, issued in November 2009, laid out the criteria that products must meet to qualify for accreditation as an indigenous innovation product. The following is taken from Article 4 (Accreditation Conditions) of the appended Instructions for National Indigenous Innovation Product Application Procedures and based on an original translation completed by the US Information Technology Office.

Organizations filing applications for accreditation of national indigenous innovation products must be product manufacturing organizations having considerable research and development (R&D) capabilities. National indigenous innovation products shall satisfy the following conditions:

- (1) Products comply with national laws and regulations, and with national industry technology policies and other related industry policies.*
- (2) Products have obtained proprietary intellectual property (IP) rights in China, whose ownership is clearly defined. A product's IP refers to the ownership of IP acquired by an applicant according to the law through the applicant's innovative activities, or the ownership or the right to use IP rights that was acquired by the applicant through assignment by Chinese enterprises, institutions, or citizens who own such IP rights. At the same time, the use, handling, and secondary development of such IP by the applicant are totally independent of overseas organizations or individuals.*
- (3) Products should have their own brand, and applicants possess ownership of the registered trademark of such products. The trademark under which the product is sold must initially be registered within the territory of China, and such trademarks are independent of overseas relevant brands.*
- (4) Products have a high degree of innovation. Applicants shall have mastered core technologies and key techniques for manufacturing such products; or new technologies or design concepts shall be applied to improve existing products fundamentally in structure, material, and process, noticeably enhancing the performance of a product; or related technology standards shall be initiated at home and abroad.*
- (5) Products are technologically advanced and internationally more competitive than similar products. For example, the product's overall technology level is internationally leading, or contains an internationally advanced core technology, or the product's technology reaches the same level with similar products produced elsewhere and the*

products have already been exported, or the cost-effectiveness of the product is fairly competitive in the international market.

(6) Product quality is reliable and has gone through testing in labs and inspection agencies that are accredited by the Certification and Accreditation Administration of China or the quality and technical supervision departments in all provinces, autonomous regions, and centrally administered municipalities. In case a product is subject to special regulatory requirements of certain industries, a production permit issued by the relevant authorities under the State Council must be obtained; in case of products being subject to mandatory product certification rules, a mandatory certification certificate must be obtained.

(7) Products have been introduced to the market and have potential economic benefits and enjoy high prospects or can be substituted for imports.

四、认定条件

申请国家自主创新产品认定的单位必须是具有一定研究开发能力的产品生产单位，国家自主创新产品应符合以下条件：

(1) 产品符合国家法律法规，符合国家产业技术政策和其他相关产业政策。

(2) 产品具有自主知识产权，且权益状况明确。产品具有自主知识产权是指：申请单位经过其主导的技术创新活动，在我国依法拥有知识产权的所有权，或依法通过受让取得的中国企业、事业单位或公民在我国依法拥有知识产权的所有权或使用权。同时，申报单位对知识产权使用、处置、二次开发不受境外他人的限制。

(3) 产品具有自主品牌，即申请单位拥有该产品注册商标的所有权。产品销售使用的商
标初始注册地应为中国境内，且不受境外相关产品品牌的制约。

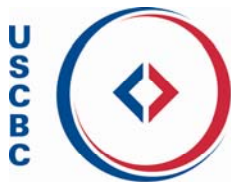
(4) 产品创新程度高。掌握产品生产的核心技术和关键工艺；或应用新技术原理、新设
计构思，在结构、材质、工艺等方面对原有产品有根本性改进，显著提高了产品性能；或在国内外率先提出技术标准。

(5) 产品技术先进，在同类产品中处于国际领先水平。包括产品整体技术水平国际领
先、或产品某项核心技术国际领先、或产品技术达到国际同类产品水平且产品已经出口等情况，或性能价格比具有一定的国际竞争力等情况。

(6) 产品质量可靠，通过国家认证认可监督管理委员会或各省、自治区、直辖市质量技

术监督部门资质认定的实验室和检查机构的检测。属于国家有特殊行业管理要求的产品，须具有国务院相关行业主管部门批准颁发的产品生产许可；属于国家实施强制性产品认证的产品，须通过强制性产品认证。

(7) 产品已经进入市场销售环节，具有潜在的经济效益和较大的市场前景或能替代进口。



THE US-CHINA BUSINESS COUNCIL

美中贸易全国委员会

1818 N Street, NW Suite 200 Washington, DC 20036-2470 USA
Tel: 202-429-0340 Fax: 202-775-2476 www.uschina.org

**USCBC COMMENTS ON CHINA'S DRAFT
GOVERNMENT PROCUREMENT LAW IMPLEMENTING REGULATIONS**

Submitted to PRC State Council Legislative Affairs Office on February 5, 2010

The US-China Business Council (USCBC) represents more than 220 US companies that conduct business across all manufacturing and services sectors in China. Over the years, our member companies operating in China have taken a deep interest in the development and implementation of China's legal framework for government procurement. USCBC would like to thank the State Council Legislative Affairs Office for this opportunity to provide comments on the draft Implementing Regulations for the PRC Government Procurement Law and hopes that these regulations will be finalized and promulgated as soon as possible.

Our comments are focused on the following important areas.

Products Eligible for Government Procurement

We are very pleased to see that Article 10 of the draft law defines "domestic good" and "domestic project and service" in ways that will include all enterprises in China, regardless of ownership. In this era of international trade and investment, it is important that governments adopt definitions of goods, projects, and services that reflect international best practices. We commend the drafters for providing a definition that focuses on the good or service rather than on the company's ownership.

We note, however, that the draft does not quantitatively define local content thresholds, an important aspect for companies to understand when looking to comply with the new regulations. To ensure consistency and transparency, we respectfully request that the draft implementing rules include the specific local content threshold; that this threshold be no greater than 50 percent value added in China (as in the 1999 Ministry of Finance *Interim Measures for the Administration of Government Procurement*); and clearly state that the threshold apply equally to all enterprises in China (or legal persons), including Chinese-owned and foreign-invested enterprises.

USCBC appreciates the drafters' efforts to ensure fairness in the definition of a domestic good, project, and service. Occasionally, foreign-invested enterprises encounter differences with how local governments interpret the term "domestic" or "Chinese." To minimize implementation inconsistencies, we respectfully suggest that language in the second paragraph of Article 10 be amended to read "Chinese citizen, legal person, or other organization that is established according to Chinese law."

Finally, the draft designates to relevant authorities the responsibility for drafting specific standards related to determining domestic goods, projects, and services. We respectfully request

that all subsequent administrative regulations, notices, and guidance be open for a public comment period of at least 30 days.

Scope of Government Procurement and Use of Fiscal Funds

We recommend that the implementing regulations clearly state that the scope of government procurement be limited to purchases made by government departments and not be expanded to purchases made by state-owned enterprises, as well as by hospitals or other such non-governmental agencies. More specifically clarifying the types of entities covered by the regulations beyond the general description in Article 2 of the Government Procurement Law would help eliminate inconsistencies in implementation.

In addition, Article 2, paragraph 2 of the draft extends the type of funds that can be used for government purchases to include loans obtained by public institutions and organizations that are guaranteed by state assets. In principle, these loans could be repaid using funds that may not be backed by state assets, including the borrower's future available capital. Such a purchase would be a commercial purchase—not a government purchase—since it would not be backed by treasury funds. This causes confusion regarding the scope and nature of government procurement, since all public government agencies should be fully funded by the treasury budget. We respectfully suggest that paragraph two be shortened to “loans that have fiscal funds as the source of repayment shall be treated the same as fiscal funds.”

Article 2 further states that procurement officers can make government purchases using “partial” fiscal funds. Cases in which government procurers lack sufficient funds so that they must source funding through commercial loans to make purchases would normally subject the project to the existing Bidding and Tendering Law. This ensures the legitimate interests of the project's financial backers. To prevent confusion and maintain the distinction between government and commercial projects, we respectfully suggest that the word “partial” be deleted from the final draft.

Threshold for Price Preference

Many countries allow or require government entities to preferentially procure domestically produced items unless they are “unreasonably” expensive relative to a competing import. The draft regulations define “unreasonable commercial terms” to mean that the price of domestic goods, projects, or services is at least 20 percent higher than those of non-domestic competition. If a price of a domestic offering is “unreasonably” higher than its foreign counterpart, it should not receive preference in procurement. The 20 percent price advantage reserved for domestic companies should be balanced against the efficient use of fiscal funds, with the margin not being so large as to distort market mechanisms that incorporate quality and research and development (R&D) investment. For this reason, we respectfully suggest that the threshold be lowered to a specific percentage in the 5 - 10 percent range, which would be consistent with preferences in many other countries.

Definition of Territory

Article 11 of the draft implementing regulations reiterates the definition of an imported product, which was originally codified in the Administrative Measures for Government Procurement of Imported Products released by the Ministry of Finance in December 2007. Subsequently, the August 2008 Notice on Related Issues on Administrative Measures of Government Procurement of Imported Products explained that products made in China's special customs zones from imported materials are not considered imported goods and are not subject to government procurement restrictions for imported products. To ensure regulatory consistency on the treatment of goods produced in China's special customs zones, we respectfully suggest that Article 11 of the draft implementing regulations incorporates the August 2008 notice into its definition and uses "Chinese territory" (defined as including special customs zones) consistently throughout the draft implementing regulations and subsequent related measures.

Indigenous Innovation Products

USCBC supports the PRC government's effort to build its national innovative capacity and understands the role that companies play in elevating a country's industrial base along the value chain. Foreign companies have contributed to China's development as an innovative economy in many ways, such as by training technicians and management in the latest methods, refining marketing and communication systems, developing new products, and establishing R&D centers. USCBC members have typically invested in China to serve China's market. They employ Chinese citizens, pay taxes in China, and contribute to the overall economic and technological development of China. In many cases, US parent companies have licensed certain technology to their China subsidiaries or have adapted or developed new products for China, thereby bringing innovative products, technologies, and best practices to China's market and customers, even if the original patent or trademark is owned in another jurisdiction.

Article 9 of the draft implementing regulations gives preference in government procurement to national indigenous innovative products (NIIP). USCBC respectfully requests that the drafters remove NIIP from the list of preferred products in Article 9 in the draft implementing regulations. More effective and internationally proven ways to promote innovation include the development of various tax incentives, R&D grants and support programs, competitive commercial prizes, and other incentives that are open to all enterprises in China, regardless of ownership.

We also suggest that "compulsory" purchasing be deleted from this article.

Government Procurement Standards

It is apparent from Article 6 that drafters aim to avoid situations where one potential supplier may develop a monopoly in or have their products designated as the standards for government procurement. USCBC appreciates this effort to guarantee due process in government procurement. As currently worded, however, the draft regulations could limit the disclosure of necessary technical information to prospective bidders. We believe this was not the intent of the drafters but rather that the drafters meant to ban any reference to the technical aspects of a particular supplier's or mark's product. Therefore, we respectfully suggest the clause be revised

with the following addition: “shall not designate specific suppliers or specific brands of goods, nor shall they enact technical specifications that point to specific supplier’s or mark’s products, nor shall they include unreasonable restrictive conditions.”

Various provisions within the draft implementing regulations contain within them the principles of civil liability—public liability and professional liability—to ensure quality goods, projects, and services. Another way that drafters can increase accountability of manufacturers and service providers is to require companies that want to provide products and services to the PRC government to submit proof of product liability insurance as part of procurement bid applications.

Central and Local Authority

Articles 8 and 115 allow provincial and county-level governments to issue their own procurement catalogues and implementation measures in accordance with local standards. This, however, appears to be in conflict with Article 87 of the Government Procurement Law, which authorizes only the State Council to enact implementation measures. With more than 2,000 counties nationwide, conflicts in the interpretation of relevant national-level procurement laws and regulations, as well as possible local protection by various provinces, are a real possibility. USCBC therefore respectfully recommends that central-level authorities further limit the scope of Article 8 within which local governments may draft their own catalogues and delete Article 115 entirely.

Conclusion

The US-China Business Council would like to thank the State Council again for providing this opportunity to comment on the draft implementing regulations. We hope these comments will prove constructive and useful to the State Council as it develops China’s government procurement system. USCBC welcomes any feedback the State Council may have and hopes to have the opportunity to discuss the contents and provisions of the draft more fully.



THE US-CHINA BUSINESS COUNCIL

美中贸易全国委员会

1818 N Street, NW Suite 200 Washington, DC 20036-2470 USA
 Tel: 202-429-0340 Fax: 202-775-2476 www.uschina.org

IMPORT SUBSTITUTION REFERENCES IN CHINA'S NOVEMBER 2009 CIRCULAR 618 AND DECEMBER 2009 CATALOGUE OF INDUSTRIAL EQUIPMENT PRODUCTS TARGETED FOR DEVELOPMENT

I. Accreditation Rules for National Indigenous Innovation Products

Released by PRC Ministry of Science & Technology, PRC Ministry of Finance, and PRC National Development and Reform Commission, November 2009, http://www.most.gov.cn/tztg/200911/t20091115_74197.htm

Import substitution appears twice in the accreditation rules:

- As one of the qualification criteria for inclusion of a particular product as a national indigenous innovation product (see below and p. 21 for the complete criteria list); and
- As a question on the “economic and social benefits and market prospects of the product” form listed among the attachments.

Page No.	Section	Text
3	四. 认定条件 Section IV. Accreditation Conditions	(7) 产品已经进入市场销售环节, 具有潜在的经济效益和较大的市场前景或能替代进口。 <i>(7) Products that have already entered the market sales phase, that have great potential for economic benefits and strong market prospects or can substitute for imports.</i>
16	附件: 六、产品经济、社会效益和市场前景 Attachment VI Economic and social benefits and market prospects of the product	能否替代进口 <i>Can this product substitute for imported products?</i>

II. Guiding Catalogue of Major Indigenous Innovative Industrial Equipment Products

Released by PRC Ministry of Science & Technology, PRC Ministry of Industry and Information Technology, and PRC State Asset Supervision and Administration Commission, December 2009,
<http://www.miit.gov.cn/n11293472/n11293832/n11293907/n11368223/12937690.html>

The conditions for major industrial equipment listed in the catalogue include products with large import volumes. Though the catalogue does not directly reference “import substitution,” the implication is clear: China should encourage the indigenous development of innovative products that are currently imported at high volumes in order to compete with, or substitute for, them.

<i>Page No.</i>	<i>Section</i>	<i>Text</i>
3	(四) 重大技术装备产品入选标准 Section 1(4) Standards for Inclusion and Selection of Key Technology and Equipment Products	2、进口量大 2. High import volumes

The term “import substitution” then appears directly in several catalogue entries. (For a detailed chart of products in the catalogue that directly reference “import substitution,” see the table below.) Several other catalogue entries also include references to imports in the detailed descriptions of their market estimate and outlook, using terms such as “mostly from import for now,” “heavy reliance on imports,” and “import for a long term.” These terms cover another 25 products.

<i>Product Entry No.</i>	<i>Product Name</i>	<i>Type</i>	<i>Major Technology Development Goals</i>	<i>Key Technologies</i>	<i>Market Estimation</i>
10.3.1	机电一体化高速喷气织机 Mechatronic high-speed air-jet loom	I	最高转速 900r/min; 最大箱幅 3.9m, 平均无故障时间 3000h	数字化控制技术, 电子送经、电子卷取技术, 可靠性技术	替代进口
12.2.2	CELL 摩擦机 CELL friction machine	I	适合 6 代及以上生产线, 基板尺寸 1500×1850mm	设备工作的高可靠性和运转稳定性	应用于国内液晶面板企业, 替代进口
16.1	报业用高速卷筒纸胶印机 High-speed web offset printer for the newspaper industry	I	最高印刷速度: 单纸路单幅机 ≥75000 张/h、双纸路双幅机 ≥150000 张/h, 套印精度 0.1mm	研发印刷速度达到 80000 对开张/时的高速折页机; 无轴传动多任务系统; 数字化预置技术及数字化网络工作流程	该机具有高性价比优势, 完成自主研发, 将填补高速折页机的技术空白, 替代进口。满足近千家中型印报企业降低成本、提高工效的需求
16.3	对开多色胶印机 Folio multi-color offset printer	II	四色以上 最大印刷速度: 单面印刷 ≥16000 张/小时, 双面印刷 ≥13000 张/小时 最大纸张尺寸 ≥720×1020 套准精度 0.025mm	数字化预置检测技术及数字化网络工作接口; 稳定性与可靠性技术; 纸张翻转装置及非接触导纸装置	该产品是目前进口量最大的机型, 和高速对开多色双面胶印机一样, 两项合计年进口量为 6-8 亿美元。研制成功可达到进口机的技术质量水平, 并替代进口
17.1.10	大型船用曲轴锻件 Large crankshaft	II	90 机以上超大型船用曲轴	锻造工艺技术	替代进口, 年需求量约 30 根曲轴

	forgings for ship use				
17.3.1	行走机械用高压柱塞泵 High-pressure plunger pump for walking machinery	I	开式高压：公称压力≥35MPa,峰值压力 42MPa; 闭式高压：公称压力≥40MPa, 峰值压力 45MPa, 排量≥63mL/r; 电比例控制	1、负荷传感、电子控制; 2、泵体铸造; 3、关键偶件表面处理; 4、高性能高可靠性密封; 5、测试技术及装备	国内空白、替代进口, 市场需求量大, 各种工程机械、大型农机、大型车辆
17.3.2	行走机械用高压柱塞马达 High-pressure piston motor for walking machinery	I	公称压力 25MPa—40MPa; 排量 63-355 mL/r; 转速 1000-4000r/min; 电比例控制	1、电子控制; 2、双速; 3、关键偶件表面处理; 4、测试技术及装备	国内空白、替代进口, 市场需求量大, 各种工程机械
17.4.3	煤矿采掘设备关键密封件 Key seals for coal mining equipment	I	满足国内市场需求	产品评价体系的建立和完善	煤炭是我国主要能源来源, 为提高煤炭开采的机械化水平和开采效率, 国家将进行一系列的煤炭改革, 形成十三个大型煤炭基地。液压支架密封为煤炭开采机械化进行配套服务, 代替进口产品

(Note: Type I products are those to be developed; Type II products are those needing major improvement and development.)