The China Sustainable Energy Program
中 国 可 持 续 能 源 项 目

高级政策顾问委员会第七次会议
7TH SENIOR POLICY ADVISORY COUNCIL MEETING

发言材料
Presentation Handouts

2004 年 11 月 12 日
November 12th, 2004

昆明 翠湖宾馆
Green Lake Hotel，Kunming

大卫与露茜尔·派克德基金会
威廉与佛洛拉·休利特基金会 合盟
能 源 基 金 会
The David and Lucile Packard Foundation, The William and Flora Hewlett Foundation, in partnership with the Energy Foundation

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中国可持续能源项目

高级政策顾问委员会第七次会议

—— 加强能源政策的实施力度

2004 年 11 月 12 日

昆明 翠湖宾馆

会议日程

8:30	**欢迎致辞** 柯尔布恩 S. 威尔伯(Colburn S. Wilbur)，高级政策顾问委员会主席
8:35	**高级顾问委员会新成员发言** 傅志寰，全国人大财政经济委员会主任委员 毛如柏，全国人大环境与资源保护委员会主任委员
	第一部分：中国能源面临的新挑战
8:45	• 中国能源战略和可再生能源的发展 茅于轼，北京天则经济研究所
9:15	**讨论：**1. 中国城市化、重化工业的路子是什么 2. 可持续全面协调发展与发展是硬道理的关系 3. 如何实现节能型社会
	第二部分：推动立法，建立政策制定和实施的法律基础（小组讨论）
9:45	• 修改节能法的急迫性和若干关注的问题 刘显法，国家发展和改革委员会环资司
10:00	• 电力法修改中的公共利益协调及监管的作用 杨昆，国家电力监管委员会
10:15	• 对可再生能源促进法（修改稿）的几点意见 简汉琳（Jan Hamrin），资源解答中心
10:30	**讨论：**1. 尽快将节能法修改列入人大议事日程 2. 公共利益和监管权限的重要性 3. 进一步完善可再生能源促进法
10:45	**休息**

	第三部分：加强政府监督和标准制定，提高政策贯彻实施的政府财政支持 (小组讨论)
11:00	• “环境影响评价法”的政府监督和实施力度 吴报中，北京东方环境研究院
11:15	• 机动车燃料效率标准的实施意见 吴卫，中国汽车技术研究中心
11:30	• 燃料质量与公众健康：加强大型国有企业的责任意识 傅立新，清华大学
11:45	• 提高政府公共财政投入和加强政策贯彻实施的国际经验 费雯俐(Barbara Finamore)，自然资源保护委员会
12:00	**讨论**：1．改进监管体制，贯彻执行技术标准 2．增加政府预算，支持监管能力建设
12:30	**午餐**
	第四部分：利用市场激励措施，鼓励清洁能源技术发展（小组讨论）
13:45	• 制订财政政策，促进可持续能源发展 傅志华，财政部财科所
14:00	• 推动能源价格改革，促进节能和可再生能源发展 刘树杰，国家发改委宏观院经济研究所
14:15	• 利用电力附加费的国际经验 马德威 (David Moskovitz)，电力监管援助计划
14:30	• 工业节能目标协议 王学军，北京大学
14:45	**讨论**：1．改善市场激励政策，推动高能效和可再生能源技术进入市场 2．强调企业在节能型社会中的角色
15:15	**休息**
	第五部分：增强地方政策执行力度
15:30	• 国际市长论坛总结：可持续城市交通和建筑节能 武涌，建设部科学技术司
15:45	• 国际市长论坛昆明宣言 昆明市市长

	第六部分：高级政策顾问委员会成员讨论
16:00	**讨论：**1．如何推动法律和法规的有效执行，促进清洁能源技术发展 2．对中国可持续能源项目的建议
17:50	**会议总结** 柯尔布恩 S. 威尔伯(Colburn S. Wilbur)，高级政策顾问委员会主席，大卫与露茜尔•派克德基金会董事会理事
18:00	**休会**
18:30	**晚宴**

CHINA SUSTAINABLE ENERGY PROGRAM
7TH SENIOR POLICY ADVISORY COUNCIL MEETING

"STRENGTHENING ENERGY POLICY IMPLEMENTATION"
KUNMING GREEN LAKE HOTEL, KUNMING, YUNNAN PROVINCE, P.R. CHINA

AGENDA

FRIDAY, NOVEMBER 12, 2004

8:30 am **WELCOME REMARKS**
Colburn S. Wilbur, Chair, Senior Policy Advisory Council, and Trustee, The David & Lucile Packard Foundation

8:35 am **INTRODUCTIONS: NEW SENIOR POLICY ADVISORY COUNCIL MEMBERS**
Fu Zhihuan, Chairman, National People's Congress (NPC) Financial and Economic Committee
Mao Rubai, Chairman, NPC Environmental Protection and Resources Conservation Committee

PART ONE: CHINA'S ENERGY CHALLENGE

8:45 am **China's Energy Strategy and Renewable Energy Future**
Mao Yushi, Unirule Institute of Economics

9:15 am **Discussion**

- China's Industrialization and Urbanization Path
- The Relationship Between "Development as the Top Priority" and "Sustainable Development"
- Launching a Dramatically More Energy Efficient Society

PART TWO: NEW AND AMENDED LEGISLATION—ENHANCING IMPLEMENTATION (PANEL PRESENTATIONS)

9:45 am **Amending the Energy Conservation Law**
Liu Xianfa, Department of Environment and Resources Conservation, National Development and Reform Commission (NDRC)

10:00 am **Public Interest and Regulatory Functions in the New Electricity Law**
Yang Kun, State Electricity Regulatory Commission

10:15 am **International Perspectives on the Renewable Energy Promotion Law**
Jan Hamrin, Center for Resource Solutions

10:30 am **Discussion**

- Adding Energy Conservation Law Amendments to the National People's Congress Agenda
- The Urgency of Amending the Electricity Law to Define Regulatory Authority
- Further Comments on the Draft of the Renewable Energy Promotion Law

10:45 am **BREAK**

PART THREE: THE NEED FOR STRONG REGULATION AND ENHANCED GOVERNMENT BUDGETS FOR IMPLEMENTATION & ENFORCEMENT (PANEL PRESENTATIONS)

11:00 am **SEPA's Regulatory Functions and Implementation of the Environmental Impacts Evaluation Law**
Wu Baozhong, Beijing Oriental Environmental Research Institute

11:15 am **Implementing Vehicle Fuel Efficiency Standards**
Wu Wei, China Automotive Technology and Research Center

11:30 am **Fuel Quality and Public Health: Correcting the Self-Regulation of Large State-Owned Enterprises**
Fu Lixin, Tsinghua University

11:45 am **Enhancing Government Investment in Implementation and Enforcement—An International Perspective**
Barbara Finamore, Natural Resources Defense Council

12:00 pm **Discussion**

- Improving Regulations to Require Technology Performance Standards
- Improving Government Budgets to Bolster Regulatory Capacity for Inspections, Monitoring, and Enforcement

12:30 pm **LUNCH**

PART FOUR: TAPPING MARKET INCENTIVES TO SPUR CLEAN ENERGY TECHNOLOGIES (PANEL PRESENTATIONS)

1:45 pm **Establishing Fiscal Policies and Price Reforms to Catalyze Sustainable Energy Development**
Fu Zhihua, Research Institute for Fiscal Science, Ministry of Finance

2:00 pm **Energy Price Reform to Spur Energy Efficiency and Renewable Energy Development**
Liu Shujie, Institute of Economic Research, NDRC

2:15 pm **Tapping Utility Revenues—An International Perspective**
David Moskovitz, Regulatory Assistance Project

2:30 pm **Promoting Industrial Energy Efficiency Agreements**
Wang Xuejun, Peking University

2:45 pm **Discussion: Part Four Topics**
- Improving Market Incentives to "Pull" Advanced Energy Efficiency and Renewable Energy Technologies Into the Market
- Emphasizing the Role of Enterprises in a Clean Energy Economy

3:15 pm **BREAK**

PART FIVE: ENHANCING LOCAL IMPLEMENTATION

3:30 pm **Summary: International Mayors' Forum on Sustainable Urban Transportation and Building Energy Efficiency**
Wu Yong, Science and Technology Department, Ministry of Construction

3:45 pm **International Mayors' Forum: Kunming Pronouncements**
Mayor, Kunming Municipal Government

PART SIX: SENIOR POLICY ADVISORY COUNCIL —MEMBER COMMENTS AND DISCUSSION

4:00 pm
- How to Further the Effective Implementation and Enforcement of Legislation, Regulations, and Incentives to Promote Clean Energy Technologies
- Advice for the CSEP Program

5:50 pm **Closing Remarks**
Colburn S. Wilbur, Chair, Senior Policy Advisory Council, and Trustee, The David & Lucile Packard Foundation

6:00 pm **ADJOURN**

6:30 pm **BANQUET**

China's Energy Strategy and Renewable Energy Future
中国的能源战略和再生能源的发展

茅 于 轼
MAO Yushi

北京天则经济研究所
Unirule Institute of Economics

1. 市场的发展和培育改变了能源的进程
Market system development changed energy use pattern

- **对过去几千年人类的发展史和能源关系的回顾.**
  Over the last several thousand years, human development has depended on energy use.

- **几千年的发展史中，从十九世纪开始，发展轨迹发生了根本性的不同，人口迅速增加，平均寿命延长，人均GDP高速增长.**
  Since the 19th century, we have seen a shift in development: rapid population growth, higher life expectancy, and increased GDP per capita.

1.市场的发展和培育改变了能源的进程

Market system development changed energy use pattern

- 是市场制度改变了这一切，由于市场制度，分工得以发展，科技进入专业化，生产力大大提高.
  Development of a market system deepened a division of labor, promoted science & technology, and enhanced productivity.
- 人类使用的能源从薪柴，煤炭，石油，天然气，水力，到原子能，效率提高方便增加．相应的发动机也在改变着，从蒸汽机，到汽轮机，到内燃机，燃气轮机，到反应堆．每一种进步都要花上几十年到上百年.
  Energy use has evolved from wood to coal, oil, natural gas, hydro, and nuclear, and increased efficiency as a result. Engine drive has changed from steam to internal combustion, gas turbine, and nuclear. Each improvement has taken several decades to a hundred years.

2.市场通过价格调整能源的开发、替代和利用。

Energy Price Determines Which Resources are Developed and Utilized

- 2050年以后，迅速增长的轨迹有可能要慢下来，因为市场制度的好处逐渐被充分开发，也因为自然资源的限制．因此再生能源将获得发展的机会．但人类社会还有一个巨大的潜力没有调动出来，即战争消费的放弃.
  After 2050, this rapid growth pattern will slow because of diminishing returns and limited natural resources. It leaves room for the development of renewable energy. But great savings may be achieved due to the abolishment of military expenditures.

2.市场通过价格调整能源的开发、替代和利用。

Energy Price Determines Which Resources are Developed and Utilized

- 价格信号能够引导各种资源之间的互相替代和新技术的发明．稀缺的资源价格上升，就会被不太稀缺的资源所取代．再生能源代替普通能源也将通过这一过程．

Market price will force substitution of resources and technological innovation. Renewable energy will replace fossil fuels.

- 由于价格的引导，经济结构能够永远和资源约束保持一致，并为社会提供最大的满足．我们不必为资源的不足而担心．能源也是这样．

Market price will reflect resource constraints, and influence the economic structure. Markets will resolve the scarcity of resources.

3.可再生能源的替代需要市场的支持

Renewable Energy Needs Market Support

- 如果没有特殊的资源被发现和利用，如甲烷的水合物，再生能源将最终代替常规能源

Renewable energy will gradually replace fossil fuel, provided no major discovery of the latter, such as the methane hydrate.

- 再生能源能够以多快的速度取代常规能源，取决于相对价格的变化.

The speed of the replacement depends upon the relative prices of alternatives.

- 我认为最有希望的再生能源可能是风力发电．在风力恒定且强劲的地方，风力发电的成本已经可以和常规发电相比较．

The most promising renewable resource is wind power, whose cost is comparable to fossil fuels.

3.可再生能源的替代需要市场的支持
Renewable Energy Needs Market Support

- 风力的缺乏稳定性，使它的经济性受到限制
  Wind's lack of predictability restricts its economic competitiveness.
- 发展再生能源的障碍应该快些取消，如再生能源发电应该让它能够入网出售
  Barriers should be removed and allow renewable energy to connect to the grid.
- 其他再生能源，如生物质能将来可能变得重要起来.
  Biomass may play an important role in energy supply.
- 担心能源危机是不必要的．因为经济结构有弹性，各种能源有替代性．
  There will be no energy crisis because of substitution and the flexibility of economic structure.

4.节能是一种低成本的能源供应
Energy Efficiency is a Low Cost Energy Resource

- 节能实际上是一种替代过程，即用其他资源代替能源.
  Energy efficiency can substitute for energy and other non-energy resources.

- 节能的深入程度取决于能源和其他资源的相对价格．因为我们不仅仅要节约能源，还要节约其他资源.
  The economics of energy efficiency depends on the relative price of energy since we not only want to save energy, but other resources.

5. 能源的外部成本需要法律干涉和社会成本核算

In order to internalize external costs, legal intervention and calculation of social costs are needed.

- 但是使用能源有环境的损害，这部分社会成本没有计入能源价格之中．所以要对能源加价，或者征收一种费，相当于环境破坏的代价.

External costs, especially environmental pollution, are not included in energy prices. A tax or fee should be added to the price of energy, proportional to the degree of environmental damage.

- 由于环境破坏的成本很难估算，所以常常用法律来要求节能．这是不得已而为之．

Because the external costs are difficult to determine, government regulations are often used to require energy conservation. This is a second best solution.

6.中国和世界两种能源市场的新格局

China and the World, Two Energy Market Patterns

- 经济全球化改变了全球范围内资源配置的规则．资源不必通过战争来得到，而是通过市场购买．市场代替了炮舰，金钱代替了武器．争夺资源之战一去不复返了．

Globalization changed the allocation of natural resources: the market replaced warships; money replaced arms.

- 中国能够不费一兵一卒，买到自己所需要的一切资源，石油，铁矿，粮食，木材等等，且不会和其他国家发生冲突．这在五十年之前还是不可能的．全球经济一体化改变了历史的轨迹

China can get sufficient resources from the world market without any confrontation with other countries.

6. 中国和世界两种能源市场的新格局
China and the World, Two Energy Market Patterns

- 当中国成为世界市场上资源品的大买家时，市场上的价格结构将发生重大变化，即资源品的涨价，制成品的落价．
  When China becomes a major buyer, the price structure on the world market will change dramatically.

- 这种变化不但不会给全世界带来伤害，反而带来实惠．因为这改变了资源利用的效率．价格能够提高配置效率．
  This will benefit various countries because the market improves resource use and allocation efficiency.

7. 清醒认识气候变化和全球变暖
Climate Change and the Greenhouse Effect

- 真正在能源方面的危险是全球变暖．这使再生能源更为重要，因为它不会产生温室气体。
  The unknown impact of global warming is a real threat to the energy sector. This makes renewable energy's role more significant.

7. 清醒认识气候变化和全球变暖

Climate Change and the Greenhouse Effect

- 还要注意其他各种温室气体，如氟氢化合物，他虽然们在大气中的含量很低，但是温室效应极强．
  Greater attention to other greenhouse gases, such as methane and HFC compound, which are more damaging than carbon dioxide though their concentration is less.

- 大气变暖的效应还没有搞得十分清楚，但是越来越多的证据说明和人类使用化石能源有关．
  The impact of global warming is not entirely clear, but more evidence is being compiled.

8. 石油供应安全问题

Oil Supply Security Issues

- 当前的高油价是长久不了的．供应和需求都会逐渐作出反应．油价大跌的前景是可以预期的
  Current high oil prices are temporary, since both demand and supply will respond. An oil price drop is foreseeable.

- 石油的战略储备是必要的．但是储藏多少，什么条件下可以动用，能不能用来作价格调节之用．这些问题都要仔细考虑
  Oil strategic reserves are necessary, but how much? How and when to use it? Should it be used for price speculation?

中国节能法制现状和完善建议

The Current Status of Energy Conservation Legislation in China and Recommendations for Improvement

刘显法
国家发展改革委环资司

2004.11

Liu Xianfa
Department of Environmental Protection and Comprehensive Resource Utilization of the National Development and Reform Commission

November 2004

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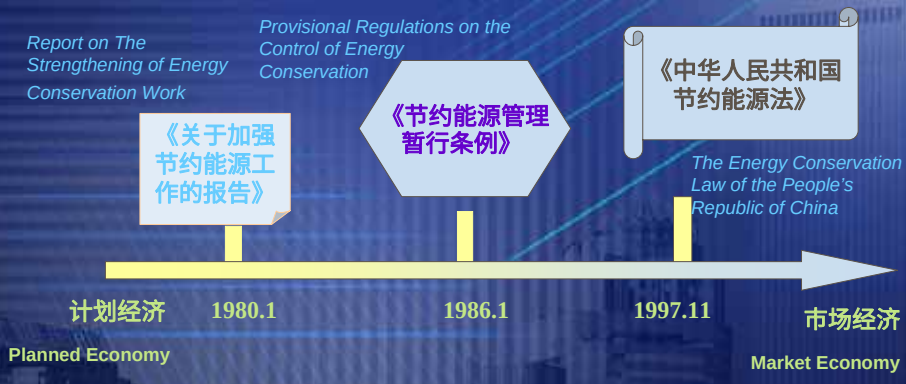
I. Review of energy conservation legislation in China

中国节能法制建设的3个里程碑

Three milestones in China's energy conservation legislation



一、中国节能法制建设回顾

I. Review of energy conservation legislation in China

1.关于加强节约能源工作的报告

- 1980年1月，国务院批转国家经委、国家计委报告
- 标志着中国大规模节能时代的到来，是中国节能法制建设的开端之作

1. Report on The Strengthening of Energy Conservation Work

- In January 1980, the State Council approved and issued the Report submitted b the State Economic Commission and the State Planning Commission.
- The report marked the advent of a large-scale energy conservation era in China. It was a pioneering piece of work in energy conservation legislation in China.

一、中国节能法制建设回顾

I. Review of energy conservation legislation in China

- 有步骤地、自上而下地建立和健全全国的能源管理机构
- 所有大型企业，都要设能源工程师和能源机构，其他企业也要设专人负责节能管理
- 国务院陆续发布5个节能指令：压缩各种锅炉和工业窑炉烧油，节约用电，节约成品油， 节约工业锅炉用煤，发展煤炭洗选加工合理利用能源

- Establish and improve nationwide energy administrative institutions step-by-step and in a top-down manner
- All large-sized enterprises were required to set up energy engineers and energy department. Other enterprises were also required to assign special personnel to take care of energy conservation management.
- Subsequently, the State Council has successively issued five energy conservation directives: "Reducing the amount of oil burnt in the various boilers and industrial kilns", "Electricity conservation", "Product oil conservation", "Conservation of the amount of coal used in industrial boilers", "Rational use of energy through the development of coal washing and sorting processes".

一、中国节能法制建设回顾

I. Review of energy conservation legislation in China

2.节约能源管理暂行条例

- **1986年1月12日国务院发布**
- **为节能法奠定了基础，标志我国节能法制建设进入规范化阶段**

2. Provisional Regulations on the Control of Energy Conservation

- Promulgated by the State Council on January 12, 1986.
- Laid a foundation for *The Energy Conservation Law* and represented a standardization of China's energy conservation legislation for the first time.

一、中国节能法制建设回顾

I. Review of energy conservation legislation in China

内容

- 总则
- 节约能源管理
- 节能管理基础工作
- 能源供应管理
- 工业用能管理
- 城乡生活用能管理
- 推进技术进步
- 奖惩
- 宣传教育
- 附则

Contents

- General provisions
- Energy conservation management
- Fundamentals of energy conservation control
- Energy supply management
- Industrial energy consumption management
- Management of the energy utilization in urban-rural life
- Promote technological progress
- Rewards and punishment
- Publicity and education
- Supplemental provisions

一、中国节能法制建设回顾

I. Review of energy conservation legislation in China

2.节约能源管理暂行条例

2. Provisional Regulations on the Control of Energy Conservation

规范的领域

- 节能管理体系
- 机构及其职责
- 重点用能单位管理
- 节能检测监督
- 节能计量、统计、标准
- 节能设计规范
- 节能技术改造资金来源
- 节能贷款等

Scope

- Energy conservation management system
- Administrative body and its responsibilities
- Management for key energy consumers
- Energy conservation testing and supervision
- Energy conservation measurement, statistics and standards
- Energy conservation design specifications
- Sources of funding for energy conservation technologies
- Energy conservation loans, etc.

一、中国节能法制建设回顾

I. Review of energy conservation legislation in China

3.中华人民共和国节约能源法

- 1997年11月1日八届人大常委会会议通过,1998年1月1日实施
- 立法过程历时15年，标志着我国进入了依法节能阶段

3. The Energy Conservation Law of the PRC

- Approved by the Standing Committee Meeting of the 8th National People's Congress on 1st November 1997 and came into effect on 1st January 1998.
- The legislation process lasted 15 years, creating an era of legally mandated energy conservation.

一、中国节能法制建设回顾

I. Review of energy conservation legislation in China

内容

- ❖总则
- ❖节能管理
- ❖合理使用能源
- ❖节能技术进步
- ❖法律责任
- ❖附则

Contents

- ❖ General provisions
- ❖ Energy conservation management
- ❖ Rational utilization of energy
- ❖ Advancement of energy conservation technology
- ❖ Legal liabilities
- ❖ Supplemental provisions

一、中国节能法制建设回顾

I. Review of energy conservation legislation in China

3.中华人民共和国节约能源法

规定内容

- 编制节能计划
- 节能管理监督
- 合理用能标准
- 禁止新建耗能过高的项目
- 节能标准
- 产品能耗限额

3. The Energy Conservation Law of the PRC

Stipulations

- Formulate energy conservation plans
- Management and supervision of the energy conservation work
- Standards of rational energy utilization
- Prohibit new highly energy intensive projects
- Energy conservation standards
- Limit energy consumption per unit product output

一、中国节能法制建设回顾

I. Review of energy conservation legislation in China

- 耗能过高产品淘汰
- 节能产品认证
- 节能统计
- 重点用能单位管理
- 设备能耗标识
- 节能培训

- Phase out excessive energy-intensive products
- Energy conservation certification
- Energy conservation statistics
- Management of key energy consumers
- Equipment energy consumption labeling
- Energy conservation training

二、《节能法》实施情况评估

II. Evaluation on Implementation of The Energy Conservation Law

（一）大大加快全国节能法制建设进程

原国家计委、国家经贸委、建设部、交通部、铁道部等制定并发布了一系列配套法规

(I) Greatly sped up energy conservation legislation in China

The former State Planning Commission, the State Economic and Trade Commission, the Ministry of Construction, the Ministry of Communications and the Ministry of Railway formulated and promulgated a series of supplemental regulations.

二、《节能法》实施情况评估

II. Evaluation of Implementation of The Energy Conservation Law

- → 《重点用能单位节能管理办法》
- → 《节能产品认证管理办法》
- → 《节约用电管理办法》
- → 《关于发展热电联产的规定》
- → 《热电联产项目可行性研究技术规定》
- → 《民用建筑节能规定》
- → 《关于固定资产投资工程项目可行性研究报告节能篇（章）编制及评估的规定》等

- → *Energy Conservation Management Measures of Key Energy Consumers*
- → *Management Measures of Energy Saving Product Certification*
- → *Management Measures on Saving Electricity*
- → *Regulation on Development of Cogeneration*
- → *Technical Provisions for Feasibility Studies on Cogeneration Projects*
- → *Regulation on Energy Conservation for Residential Buildings*
- → *Regulation of Preparation and Evaluation of "Energy Saving Chapter" of Feasibility studies for Fixed Assets Investment Projects*, etc.

二、《节能法》实施情况评估

II. Evaluation on Implementation of The Energy Conservation Law

（一）大大加快全国节能法制建设进程

2. 各地结合本地实际，制定实施地方节能法规，取得显著成效

→ 20个省区市已颁布实施节能条例或办法

→ 8个省市区已进入立法程序

→ 各地共制定实施各类节能法规70多项。

(I) Greatly sped up energy conservation legislation in China

2. Various localities have formulated local energy conservation regulations in line with their local conditions and scored notable achievements.

→ 20 provinces, autonomous regions and municipalities have issued and implemented energy conservation regulations or measures.

→ 8 provinces, autonomous regions and municipalities have entered legislation procedures.

→ Various localities have formulated and implemented over 70 energy conversation regulations.

二、《节能法》实施情况评估

II. Evaluation on Implementation of The Energy Conservation Law

3. 耗能产品强制性国家能效标准和节能产品认证工作成效显著

→ 颁布实施14项强制性能效标准
工业设备
家用电器
照明器具

→ 对21种节能节水产品进行了认证

3. Notable results have been achieved in implementing compulsory national energy efficiency standards for energy consumption products and certifying energy-saving products

→ Issued and implemented 14 compulsory energy efficiency standards
Industrial equipments
Home appliances
Lighting devices

→ Have certified 21 energy and water saving products

二、《节能法》实施情况评估

II. Evaluation on Implementation of The Energy Conservation Law

（二）节能管理监督不断加强

(II) Energy conservation management and supervision has been strengthening

1. 上海、云南等4省市建立了节能监察中心
   - → 由政府依法授权
   - → 财政给予专项资金支持，
   - → 开展节能执法监察；

   浙江、江苏等12省市财政也给予专项资金，由省级节能中心对企业进行节能监测，依法进行节能监督管理。

1. 4 provinces (municipalities) including Shanghai and Yunnan have established energy conservation supervision centers
   - → Authorized by the government according to law
   - → With special funding from the State treasury
   - → Supervise energy conservation

   Financial departments in 12 provinces (municipalities) including Zhejiang and Jiangsu have also allocated special funds to support their provincial energy conservation centers to monitor energy conservation in enterprises and carry out energy conservation supervision and management according to law.

二、《节能法》实施情况评估

II. Evaluation on Implementation of The Energy Conservation Law

2. 重点用能单位管理不断加强
   - → 湖南、浙江、山东等地制定实施了有效的监督管理体系，取得了明显成效

2. Management of key energy consumers has been strengthened
   - → Hunan, Zhejiang, Shandong and other provinces have formulated and implemented effective supervision and management systems with notable achievements.

二、《节能法》实施情况评估

II. Evaluation on Implementation of The Energy Conservation Law

（三）节能法实施过程中出现的问题

1. 内容宽泛，要求过于原则

2. 在规范对象上，偏重工业，对建筑、交通重视不够；

在制度设计上，偏重挖掘现有潜力；

在管理模式上，偏重企业过程管理。

(III) Problems emerged in the process of implementing The Energy Conservation Law

1. Its contents and requirements are too general.

2. It focuses on the industrial sector, paying not enough attention to the construction or transportation sectors;

In terms of system design, there is overemphasis on tapping existing potentials;

As for management model, there is overemphasis on enterprise process management.

二、《节能法》实施情况评估

II. Evaluation on Implementation of The Energy Conservation Law

3. 未能明确节能管理部门以及管理监督责任、体制、机制，特别是未能把监督管理机构在法律上予以明确

3. No energy conservation administration department or administrative supervision responsibilities, systems or mechanisms are specified. In particular, supervision and administrative institutions have not been clearly formulated.

三、对完善节能法，加快节能法制建设的建议

III. Recommendations for improving The Energy Conservation Law and speeding up energy conservation legislation

（一）继续抓紧《节能法》配套法规建设

有关地方要抓住当前有利时机，尽快制定实施条例、办法及管理制度。

(I) Continue to work on formulating regulations to supplement the Energy Conservation Law

Relevant localities should seize upon the current favorable opportunity and formulate implementing regulations, measures and management systems as soon as possible.

三、对完善节能法，加快节能法制建设的建议

III. Recommendations for improving The Energy Conservation Law and speeding up energy conservation legislation

（二）抓紧研究完善节能法的有关问题

1. 研究节能立法的新思路
   - → 全面总结20多年节能经验
   - → 按照市场经济条件下的客观需要，充分考虑国情
   - → 对政府节能管理监督“管什么，怎么管”的问题进行充分研讨，形成共识

(II) Step up research work on relevant issues to perfect the Energy Conservation Law

1. Conduct research on new ways of thinking for energy conservation legislation
   - → Fully summarize over 20 years of energy conservation experiences
   - → Give full consideration to China's national conditions according to the actual needs under the market economic conditions
   - → Engage in full discussions on issues like “what and how” the government should manage and supervise energy conservation and try to reach consensus.

三、对完善节能法，加快节能法制建设的建议

III. Recommendations for improving The Energy Conservation Law and speeding up energy conservation legislation

2. 立足全面节能，加强建筑、交通、政府机构节能管理监督，特别是要加强对新建企业、新建筑、新交通工具、新耗能设备能源效率的管理监督

2. Take a firm footing on comprehensive energy conservation and strengthen management and supervision of energy conservation in construction, transportation and government sectors. In particular, strengthen the management and supervision of energy efficiency in new enterprises, new buildings, new transportation vehicles and new energy-consuming equipment.

三、对完善节能法，加快节能法制建设的建议

III. Recommendations for improving The Energy Conservation Law and speeding up energy conservation legislation

（二）抓紧研究完善节能法的有关问题

(II) Step up research on relevant issues to perfect the Energy Conservation Law

3. 从制度设计上切实加大监督力度

明确管理监督体制、机制，包括牵头部门、负责部门、监管机构和队伍等

3. Intensify system design of supervision

Specify management, supervision systems and mechanisms, including leading departments, responsible departments, supervisory institutions and teams.

三、对完善节能法，加快节能法制建设的建议

III. Recommendations for improving The Energy Conservation Law and speeding up energy conservation legislation

4. 充分考虑法律制度的可操作性

   实事求是地减少管理制度，着力在完善、明确、具体化必要的有效制度上下功夫，切实解决宽泛但不管用的问题

5. 减少甚至取消对企业、过程的管理制度，突出设计好“抓源头，卡门槛，管大户”的有关制度

4. Give full consideration to the operability of the legal system

   Truly reduce administrative systems, focus on improving and specifying necessary and effective systems and effectively address the problem of generality and inefficiency.

5. Reduce and even abolish enterprise or process administration systems and focus on designing good systems featuring "controlling the source, setting strict thresholds and managing big energy consumers"

电力法修改中如何体现科学发展观和电力监管

Amendment of Electricity Law: "Scientific Development" and Electricity Regulation

杨昆 Yang Kun

国家电力监管委员会

State Electricity Regulatory Commission

一、电力法修改情况
The Amendment Process

- **现行电力法自1996年4月1日起施行**
- **保障和促进电力事业的发展和电力安全运行，维护电力投资者、经营者和使用者的合法权益**
- **不能适应电力工业的快速发展和新一轮电力体制改革新形势**

- Enacted on April 1 ,1996
- Played an important role in safeguarding power industry development, protect various stakeholders' interests
- No longer appropriate under the context of new reform

一、电力法修改情况
The Amendment Process

- 2004年，全国人大常委会和国务院均确定将电力法修订列入立法计划
- 国家发展改革委会同国家电监会组织修改
- 起草小组已经拿出征求意见稿，准备向各省区市人民政府和有关电力企业征求意见

- The amendment of the Electricity Law was listed in the NPC and State Council's plan for 2004.
- NRDC and SERC jointly responsible for drafting.
- Amendment draft completed and circulated for comments.

一、电力法修改情况
The Amendment Process

---现行电力法有关电力市场、电力监管的内容尚属空白，对普遍服务等配套制度的安排不到位。

---如何充分体现全面协调可持续的科学发展观，是电力法修改中需要解决的关键性问题

---No appropriate provisions for electricity market, new regulatory system, or consideration for universal service and other supporting arrangements.

---Key issue is how to coordinate power sector development with sustainable development

二、对电力科学发展观的一些初步理解
Primary Understanding of Scientific Development of the Power Industry

- 鉴于电力工业是国民经济的基础产业，是现代社会的主导动力和人民生活不可缺少的日常用品；
- 鉴于电力工业既是能源提供者，也是社会资源的主要消耗者和污染制造者；
- 鉴于电力工业是具有网络性，带有自然垄断性，具有社会公益性的事业，比其他竞争性行业理当承担起更多的社会责任，更好地贯彻科学发展观

- **The Power sector is a basic industry, integral to social development and everyday life.**
- **Produces electricity while consuming resources and generating pollution**
- **Should bear social responsibilities**

二、对电力科学发展观的一些初步理解
“Scientific Development” of the Power Industry Means

1、坚持与国民经济协调发展。

- 电力规划纳入国民经济发展规划，与资源和环境保护相协调

1. Support the development of the national economy

- **Incorporate electricity planning into the overall planning of the national economy and make it consistent with resources and environmental protection.**

二、对电力科学发展观的一些初步理解 “Scientific Development” of the Power Industry Means

2、坚持电力事业可持续发展

- 电力活动应合理开发利用自然资源、保护环境，减少污染排放
- 可再生能源配额制、优先上网、全额收购
- 电力需求侧管理和节电
- 建立公共效益资金支持节能和可再生能源

2. Sustainable Electricity Development

- Electricity production and consumption should pay attention to resource use, environmental protection, and pollution reduction.
- Implement renewable energy mandatory market share policy, give priority to renewables for grid connection, require 100% procurement by the grid company
- Encourage demand-side management and electricity saving
- Establish public benefits fund to support energy efficiency and renewable energy

二、对电力科学发展观的一些初步理解 “Scientific Development” of the Power Industry Means

- **3、坚持确保电力安全**

Guarantee secure electricity supply

- **4、坚持保护电力用户和公众利益**

Protect consumers’ and public interests

- **5、坚持开展电力普遍服务，热心支持公益**

Provide universal service, support public welfare improvement

三、电力监管在电力工业科学发展中的作用
The Role of Electricity Regulatory System in Realizing Scientific Development

- 为了适应电力工业新的体制格局，维护电力市场秩序，确保公平竞争，必须建立独立的电力监管机构和电力监管体系
- 国家电力监管委员会已经于2003年初成立，并在建立区域电力市场、制定监管规章、依法监管电力市场和电价、完善监管组织体系开展了大量有成效的工作，但依然任重道远。

- An independent regulatory agency is needed to be compatible with the restructured electricity industry, safeguard electricity market order and fair competition.
- SERC, established in early 2003, has established regional markets, formulated regulatory provisions, and market and price regulation and institutional development, but still has a long way to go.

三、电力监管在电力工业科学发展中的作用
The Role of Electricity Regulatory System in Realizing “Scientific Development”

- 利用监管这种具有事后干预特征的制度安排，解决自然垄断带来的市场失灵应当是一个好办法
- 电力法修改中，应当突出对垄断环节监管的内容，对包括电力市场准入、价格监管、信息披露、互连互通、产品质量、反垄断政策以及普遍服务机制等方面的监管内容，对监管机构依法对电力市场、电力企业的违法、违规行为进行调查、处理电力市场纠纷的权限和程序等都应有明确的规定

- Government Regulation is needed to address the market failures of natural monopolies.
- Regulation should focus on monopolies, e.g. market access, pricing, information disclosure, grid connection, product quality, anti-monopoly and universal service.

三、电力监管在电力工业科学发展中的作用
The Role of Electricity Regulatory System in Realizing “Scientific Development”

●依法进行监管。进一步抓紧《电力法》的修改，尽快出台《电力监管条例》，建立健全适应监管需要的完备的反垄断法律法规；

Regulation by law. Speed up the amendment of Electricity Law, promulgate Electricity Regulatory Provisions, and formulate anti-monopoly laws

●实行“政监分开、集中监管”的原则，明晰政府与监管机构的职权划分，赋予监管机构相对集中的监管权限；

Separate government functions from the regulator’s functions and grant all necessary authority to the regulator.

三、电力监管在电力工业科学发展中的作用
The Role of Electricity Regulatory System in Realizing “Scientific Development”

- 加强对垄断性环节的监管，适当放松对竞争性环节的管制；

  Strengthen regulation on monopoly side, properly relax regulation on competitive side.

- 政府部门、监管机构、电力企业、行业协会之间应建立权责明确、互相协调又互相制衡的运行机制。

  Establish a coordinated and balanced operation mechanism between government agencies, regulatory body, power enterprises and industrial associations.

RENEWABLE ENERGY DEVELOPMENT AND UTILIZATION LAW of CHINA
中国可再生能源开发利用法

CSEP PAC Meeting
Kunming, China
November 12, 2004

中国，昆明
2004 年 11 月 12 日

Jan Hamrin, PhD， Executive Director
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Center for Resource Solutions
资源解答中心
www.resource-solutions.org

Center for RESOURCE SOLUTIONS

Background
背景

- **2 Versions** of law were drafted
  - NDRC
  - Tsinghua University
- **8 months of comments**
- **Both submitted** final drafts **to NPC** end of June

- 共起草了**两个版本**的法律
  - 发改委
  - 清华大学
- **征求意见长达 8 个月**
- **两个单位都在**六月底向**全国人大提交了**最终草案

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Background (cont.)
背景（续）

- **NPC consolidated the two versions**
- **Consolidated draft issued for comment in August**

- **全国人大整合了两个版本**
- **8 月颁布了整合后的草案以征求意见**

Summary of August Draft RE Law
可再生能源法草案总结

Chapters:

1. General Principles
2. Resource Management & Development Plan
3. Industry Guidance & Technology Advancement
4. Promotion & Application

章节：

1. 基本准则
2. 资源管理和开发规划
3. 行业指导和技术发展
4. 推广和应用

Summary of August Draft RE Law (cont.)
8 月可再生能源法草案总结（续）

Chapters:

5. Price Management & Fee Sharing
6. Economic incentives
7. Legal Responsibilities
8. Explanatory

章节：

5. 价格管理和费用分摊
6. 经济激励
7. 法律责任
8. 说明性备注

Comment
意见

- **More detailed** than past energy laws
- **Not as detailed** as earlier drafts or most western legislation

- 比过去的能源法**更详尽**
- **不如**早期草案或多数西方国家立法**那样详尽**

Summary of August Draft RE Law (cont.)
8 月可再生能源法草案总结（续）

- **Comprehensive** in scope
  - **Bulk RE generation**
  - **Off-grid RE generation**
  - **Biomass Fuels**
  - **Solar Water heating**
  - **Rural RE**
- **Encourages broad public participation in process**

- **涵盖**各个领域
  - **大宗可再生能源生产**
  - **离网可再生能源生产**
  - **生物质燃料**
  - **太阳能热水系统**
  - **农村可再生能源**
- **鼓励大众积极参与**

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Summary of August Draft RE Law (cont.)
8 月可再生能源法草案总结（续）

- Will develop an approved **national plan with targets** no lower than:
  - **5% RE by 2010**
  - **10% RE by 2020**
- **Provincial level targets** consistent with available resources & economic development

- 将制订一个发展**规划，其目标为：**
  - **至 2010 年实现 5% 可再生能源**
  - **至 2020 年实现 10% 可再生能源**
- **省级目标**与可用资源及经济发展保持一致

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Summary of August Draft RE Law (cont.)
8 月可再生能源法草案总结（续）

Bulk Power

- Multi-policy approach
  - **Feed-in Tariff**
  - **Gov. Tendering Policy**
  - **Mandate for large generators**
  - **Voluntary Markets permissible**

并网电力

- 多策略方法
  - **购电法**
  - **政府招标政策**
  - **大型发电企业承担义务**
  - **允许资源购买**

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Summary of August Draft RE Law (cont.)
8 月可再生能源法草案总结（续）

- **Development Plan** will include:
  - **Industry Directory** with "Development Guidance"
  - **RE RD&D** as a priority with a separate plan
  - **Training and education**

- **开发计划**将包括：
  - 附有"开发指导"的**行业目录**
  - **可再生能源研发**优先（附带独立计划）
  - **培训和教育**

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Summary of August Draft RE Law (cont.)
8 月可再生能源法草案总结（续）

- **Grid interconnection** and **purchase of all** output guaranteed
- Grid construction costs **appropriately assigned to parties**
- Article 24, Electricity Price Sharing, is **extremely important**
  - Costs are spread over all electricity consumers

- 确保**电网互联**并全额收购
- 将电网建设成本**适当地分摊到各方**
- 第 24 条，电费分摊**尤为重要**
  - 将成本分摊到所有电力用户

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Summary of August Draft RE Law (cont.)
8 月可再生能源法草案总结（续）

- Provides for **soft loans**
- Offers **tax benefits** including VAT
- Specifies **legal responsibility** and specific fines for non-compliance

- 提供**软贷款**
- 提供包括增值税在内的**税收优惠**
- 规定**法律责任**和违规惩罚细则

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Legal Responsibilities/Issues
法律责任/问题

- Very important section
- **Fines are greater than cost of compliance**
- Didn't Specify: Are fines **one-time, annual, on each occurrence,** etc.?

- 至关重要的部分
- **罚款额度高于违反法规的成本**
- 未规定：罚款是一次性收取，还是按年度收取，或即犯即罚，等等？

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Issues: Bulk Power
问题：并网发电

- **Policies** not well integrated
  - Unclear how they apply to targets
- **Mandate** placed on large generators may **not** be appropriate in mid- to long-term

- **政策**没有很好整合
  - 不清楚如何将它们应用到目标
- 中长期可能**不**适合对大型发电厂实施**配额**

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Issues: Bulk Power (cont.)
问题：并网发电（续）

- Targets appear to be **'energy' rather than electricity** specific
- Need **timelines** for **setting targets, rates and development plans**
- Should regularly **report to State Council** on progress

- **目标似乎是'能源'，而非专指电力**
- **需要设定目标、价格和开发计划的时间表**
- **应定期向国务院提交进展报告**

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Issues: Bulk Power (cont.)
问题：大量电力（续）

- **Some activities required by law are not funded in the law**
  - **Fines** could go into RE fund
  - **PBF** or another fund should be specified

- **法律要求的一些行为在法律中并未指出资金来源**
  - **罚款**可以作为可再生能源资金
  - 应指定 **PBF** 或其它资金

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Issues: Bulk Power (cont.)
问题：大量电力（续）

- Need more **specific transmission planning and interconnection rules**
- More specifics on **national versus provincial** responsibilities
- Require a **standard PPA** for RE

- 需要更**详尽的电力传输规划和互联准则**
- 细化**中央**职责和**省级政府**职责
- 需要为可再生能源提供一个**标准 购电协议**

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Price Management
价格管理

- The differential price system is good but no **detail on when to do bidding and when to use the feed-in price**
- Article 24, Electricity Price Sharing, is **extremely important**
  - Costs are spread over all electricity consumers

- 差别计价系统虽然好，但缺少**何时竞价以及何时使用购电法的细节**
- 第 24 条，电费分摊**尤为重要**
  - 将成本分摊到所有电力用户

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Price Management (cont.)
价格管理（续）

Need Price Principles:

1. Sufficient to **attract investment**
2. **Known in advance**
3. Access to price for **minimum of 15 years**
4. Only **prospective** changes for new contracts
5. **Standard PPA** should be drafted

需要制订价格原则：

1. 足以**吸引投资**
2. **事先有所了解**
3. 可以控制**至少 15 年内**的价格
4. 仅对新合同进行**预期的**更改
5. 必须起草**标准 购电协议**

Other Sections
其它部分

- **Rural & Remote Power**
  - **Gov.** will provide financial **subsidies**
  - **Grid** companies responsible for **operating facilities**
- **Solar Water Heating**
  - Real estate developers and property managers **must allow solar water heating and PV**

- **农村及偏远地区电力**
  - **政府**将提供财政**补贴**
  - **电网**公司负责**运行系统**
- **太阳能热水系统**
  - 房地产开发商和物业管理人员**必须准许用太阳能热水系统和 PV**

Other Sections (cont.)
其它部分（续）

Bio-fuels:

- **Fuel Gas & Heat**
  - Encourages utilization and **access to distribution system**
- **Liquid Fuel**
  - Encourages purchase of biological liquid fuels **by petroleum selling companies**

生物燃料：

- **燃气和采暖**
  - 鼓励利用和**使用分配系统**
- **液态燃料**
  - 鼓励购买**石油销售公司**的液态生物燃料

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Industry & Technology
行业和技术

- Setting **technology and product standards as well as occupational training are all good**
- National testing centers are also good but **how to pay for them?**

- **设定技术和产品标准以及职业培训不无裨益**
- **国家测试中心也不错，但如何承担它们的费用？**

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Conclusions
结论

- **Excellent process**
- **Good draft but could still be improved**
- **RE Law will be key to RE development in China**

- **完善的立法过程**
- **出色的草案，但仍有改进的余地**
- **可再生能源法将成为中国可再生能源开发的关键所在**

Center for RESOURCE SOLUTIONS

环境影响评价法的政府监督和实施
Government Supervision and Implementation of the Environmental Impact Assessment (EIA) Law

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一．中国环境影响评价制度的建立与发展
Establishment and Development of EIA System in China

1、国外经验的借鉴
Use International Experience as Reference

2、国内法制建设的推动
Promote Legislation Building in China

3、建设项目环境影响评价制度的特点
Features of the EIA System for Construction Projects

一．中国环境影响评价制度的建立与发展（续）
Establishment and Development of EIA System in China

3、建设项目环境影响评价制度的特点
Features of the EIA System

（1）环境影响评价制度具有法律强制性
EIA System has strict legal enforcement

（2）环境影响评价是建设 项目审批的法定程序
EIA is a legal procedure for inspection and approval of construction projects

（3）对建设项目环境影响评价实行分类管理
Classification of EIA management on construction projects

一．中国环境影响评价制度的建立与发展（续）
Establishment and Development of EIA System in China

3、建设项目环境影响评价制度的特点（续）
Features of the EIA System for Construction Projects

(4) 实行环境影响评价资格审查制度
Implements an EIA qualification examination system

(5) 多部门协作,严格把关
Multi-departmental collaboration and inspection

一．中国环境影响评价制度的建立与发展（续）
Establishment and Development of EIA System in China

4、建设项目环境影响评价制度对经济社会健康发展发挥了重要作用
The EIA System plays an important role in social and economic development

（1) 促进了产业合理布局
Promotes rational distribution of industry

（2) 控制了新污染,也促进了老污染治理
Prevents and controls new pollution, promotes treatment of existing pollution

（3) 促进了产业技术改造和清洁生产
Promotes improvement of enterprises' technology and cleaner production

一．中国环境影响评价制度的建立与发展（续）
Establishment and Development of EIA System in China

4、建设项目环境影响评价制度对经济社会健康发展发挥了重要作用 （续）
The EIA System plays an important role in social and economic development

（4)促进了全民特别是产业界环境意识的提高
Promotes environmental awareness, particularly by enterprises

（5)保护了生活和生态环境
Protects life and environment

二、环境影响评价立法的必要性
Necessity of EIA Legislation

1、《建设项目环境保护管理条例》是我国建设项目环境管理的第一个行政法规，但还不是法律。

"Administrative Regulations on the Environmental Protection of Construction Projects" are the first administrative environmental protection regulations, but they are not *laws.*

2、单纯对建设项目进行环境影响评价已经适应不了全面保护环境和持续利用资源的需要

EIA conducted in construction projects are not adequate for comprehensive environmental protection and sustainable resource use.

二、环境影响评价立法的必要性（续）
Necessity of EIA Legislation

3.考虑到 Consider:

(1)环境影响评价法具有行政程序法的特征，是环境保护法和各单项环境保护法律所容纳不了的。

EIA Law has the administrative authority which existing environmental protection laws and other laws lack

(2)政策和规划环境影响评价对于从"源头"解决环境污染问题具有十分重要的意义。

EIA policy and planning are critical to addressing environmental pollution problems at the "source".

二、环境影响评价立法的必要性（续）
Necessity of EIA Legislation

3.考虑到 Consider:

(3)政策和规划环境影响评价不同于一般的环境保护法律所具有的行政主管部门以及行政监督管理者和监督管理相对人的法律关系。

Legal authority does not exist with respect to EIA policy and planning.

因此，必须制定一部完整的环境影响评价法。

Therefore, one comprehensive law on EIA must be formulated.

三. 环境影响评价法的政府监督和实施
Government Supervision and Implementation of EIA Law

（一）宣传贯彻

Publicity and Implementation

实现三个转变： Realize three transformations:

***从项目管理转向综合管理**

From specific project management towards comprehensive management

***从微观管理转向宏观管理**

From micro management towards macro management

***从被动管理转向主动管理**

From passive management toward active management

三. 环境影响评价法的政府监督和实施（续）
Government Supervision and Implementation of EIA Law

（二）制定必要的配套法规
Formulate necessary regulations

1、发布环境影响评价专家库管理办法
Issue management methods on EIA expert database

2、发布专项规划环境影响评价报告书审查办法
Issue examination methods on EIA reports

3、建设环境影响评价基础数据库
Build EIA database

三. 环境影响评价法的政府监督和实施（续）
Government Supervision and Implementation of EIA Law

（二）制定必要的配套法规 （续）
Formulate necessary regulations

4、经国务院批准发布《编制环境影响报告书的规划的具体范围（试行）》和《编制环境影响篇章或说明的规划的具体范围(试行)》
"Compilation of Detail Planning Range for Environmental Impact Statement (trial implementation)" and "Compilation of Detail Planning Range for Environmental Impact Chapters or Explanations (Trial Implementation)"

5、发布《规划环境影响评价技术导则(试行)》
Promulgate "Technical EIA Guidelines (Trial Implementation)"

三. 环境影响评价法的政府监督和实施（续）
Government Supervision and Implementation of EIA Law

（三）为强化重点行业和区域规划环境影响评价的分类指导，开展了相关研究

Carry out research to strengthen guidance of EIAs in key industries and regional planning

通过案例，研究能源规划环境影响评价的内容和方法，并提出相关政策建议

Through case study, examine contents and measures of EIA in energy planning and the relevant policy recommendations that were put forward.

三. 环境影响评价法的政府监督和实施（续）
Government Supervision and Implementation of EIA Law

能源规划环境影响评价的主要内容

Main contents of EIA in energy planning

(1)能源规划内容分析

Analysis on planning contents

*能源消费总量和结构

Total amount and composition of energy consumption

*终端能源消费总量和结构

Total amount and composition of energy end use

*污染物排放情况

Discharge of pollutants

*大气环境质量

Quality of atmospheric environment

三. 环境影响评价法的政府监督和实施（续）
Government Supervision and Implementation of EIA Law

(2)能源规划的环境影响评价

EIA of Energy Planning

*规划环境影响识别

Identification of planning environmental impact

*规划环境影响评价指标

EIA Planning Index

*能源消费预测

Prediction of energy consumption

*大气污染物排放量影响分析

Effect analysis of discharge amount of atmospheric pollutants

*大气环境质量影响分析

Effect analysis of quality of atmospheric environment

三. 环境影响评价法的政府监督和实施（续）
Government Supervision and Implementation of EIA Law

(3)关于能源规划环境影响评价的政策建议

Policy recommendations on EIA in energy planning

*《规划编制条例》与规划环境影响评价法律规定的衔接

Link “Planning of Compilation Regulations” with legal provisions for planning EIA

* 能源规划中规划目标、能源项目及其布局与环境目标的衔接

Energy planning and projects, and their distribution should consider environmental objectives

* 能源规划环境影响评价方法的筛选优化

Screen and optimize EIA methods in energy planning

四. 关于实施《环境影响评价法》的若干政策建议
Policy Recommendations

1、应该把进一步加强电力行业的环境保护工作作为电力体制改革的重要目标之一。

Strengthen environmental protection work in the power industry as an important goal for power sector reform.

2、必须坚决依法实施规划环境影响评价和建设项目环境影响评价的“一票否决”。

Require unanimous approval on EIA of planning and construction projects.

3、各有关部门应当共同树立环境影响评价法律制度的权威性，各自承担相应的法律责任。

Concerned government agencies should work hard to set up EIA Law and lay out obligations and responsibilities, incentives, and penalties.

推进汽车燃料消耗量标准的实施
提高汽车节能水平

Promote Fuel Efficiency Standards Implementation to Improve Vehicle Energy Efficiency

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CATARC

7th Senior Policy Advisory Council Meeting

November 12, 2004

提要— Main Points

- 国家标准GB/T 19233 -2003《轻型汽车燃料消耗量试验方法》、GB 19578-2004《乘用车燃料消耗量限值》先后正式发布，中国汽车燃料经济性标准体系基本建立。
- The Testing Methods and Fuel Efficiency Standard for Light-duty Vehicles have been officially issued.
- The Chinese vehicle fuel efficiency standard system has been established.

- 汽车燃料经济性标准体系和配套政策还需完善，标准实施也需要多方面的努力。
- **Efforts are still needed to perfect the Chinese vehicle fuel economy standard system and its supporting policies.**
- **Coordinated efforts from all stakeholders are needed for strong implementation.**

I.《乘用车燃料消耗量限值标准》的内容和特点 Standard Content and Features

1.《乘用车燃料消耗量限值》的适用范围 Scope

■适用于以点燃式发动机或压燃式发动机为动力，最大设计车速大于或等于50km/h、最大设计总质量不超过3500kg的M1类车辆。本标准不适用于仅燃用气体燃料或醇类燃料的车辆。

■**Applies to M1 category vehicles (positive-ignition engine or compression-ignition engine with a maximum design speed of 50km/h or more, total mass not exceeding 3.5 tons)**

■**Does not apply to non-liquid and methanol/ethanol fueled vehicles**

整车整备质量 Total Vehicle Mass (CM), kg	第一阶段 Phase I		第二阶段 Phase II	
	普通乘用车 Ordinary Passenger Vehicles	特殊结构 Special Structure Vehicles	普通乘用车 Ordinary Passenger Vehicles	特殊结构 Special Structure Vehicles
CM≤750	7.2	7.6	6.2	6.6
750＜CM≤865	7.2	7.6	6.5	6.9
865＜CM≤980	7.7	8.2	7.0	7.4
980＜CM≤1090	8.3	8.8	7.5	8.0
1090＜CM≤1205	8.9	9.4	8.1	8.6
1205＜CM≤1320	9.5	10.1	8.6	9.1
1320＜CM≤1430	10.1	10.7	9.2	9.8
1430＜CM≤1540	10.7	11.3	9.7	10.3
1540＜CM≤1660	11.3	12.0	10.2	10.8
1660＜CM≤1770	11.9	12.6	10.7	11.3
1770＜CM≤1880	12.4	13.1	11.1	11.8
1880＜CM≤2000	12.8	13.6	11.5	12.2
2000＜CM≤2110	13.2	14.0	11.9	12.6
2110＜CM≤2280	13.7	14.5	12.3	13.0
2280＜CM≤2510	14.6	15.5	13.1	13.9
2510＜CM	15.5	16.4	13.9	14.7

2.对具有特定结构车辆限值的处理
Determining Limits for Special Vehicles

- 标准对于含有自动变速器、三排或三排以上座椅和属M_1G 类的车辆的燃料消耗量限值适当放宽，按照表中特殊结构车辆的限值执行。

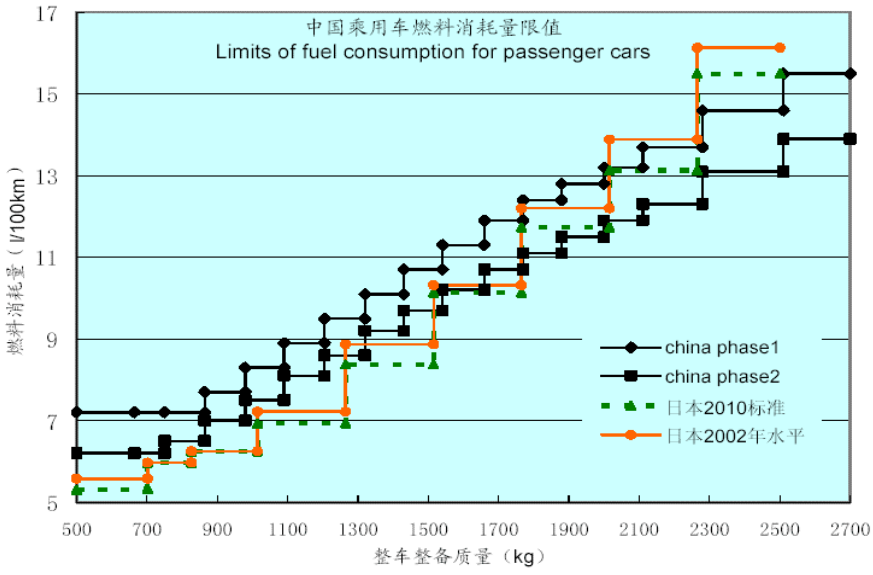
The fuel consumption limits will be relaxed for:

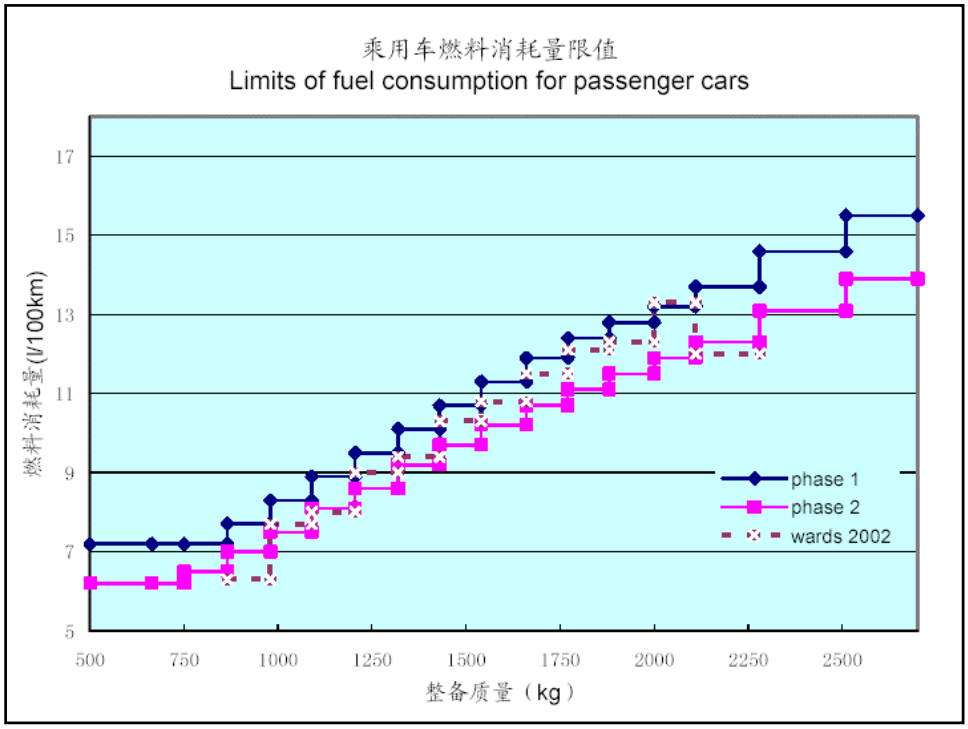
- **Automatic transmission vehicles**
- **Vehicles with three or more rows of seats**
- **Category M_1G vehicles**

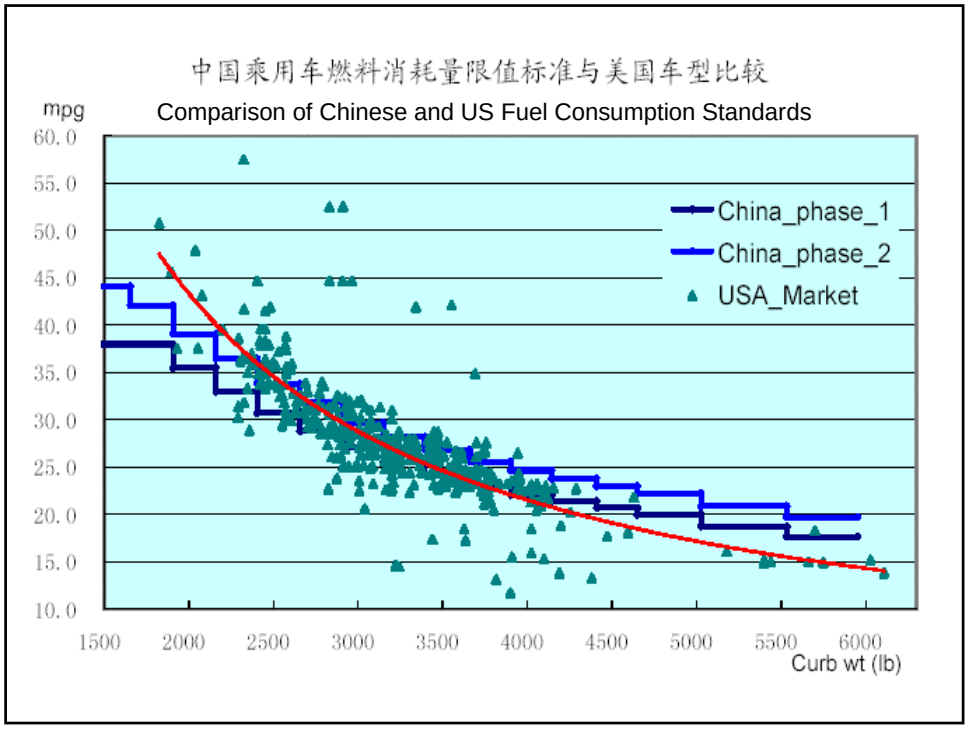
3.《乘用车燃料消耗量限值》的执行日期
Enforcement Date

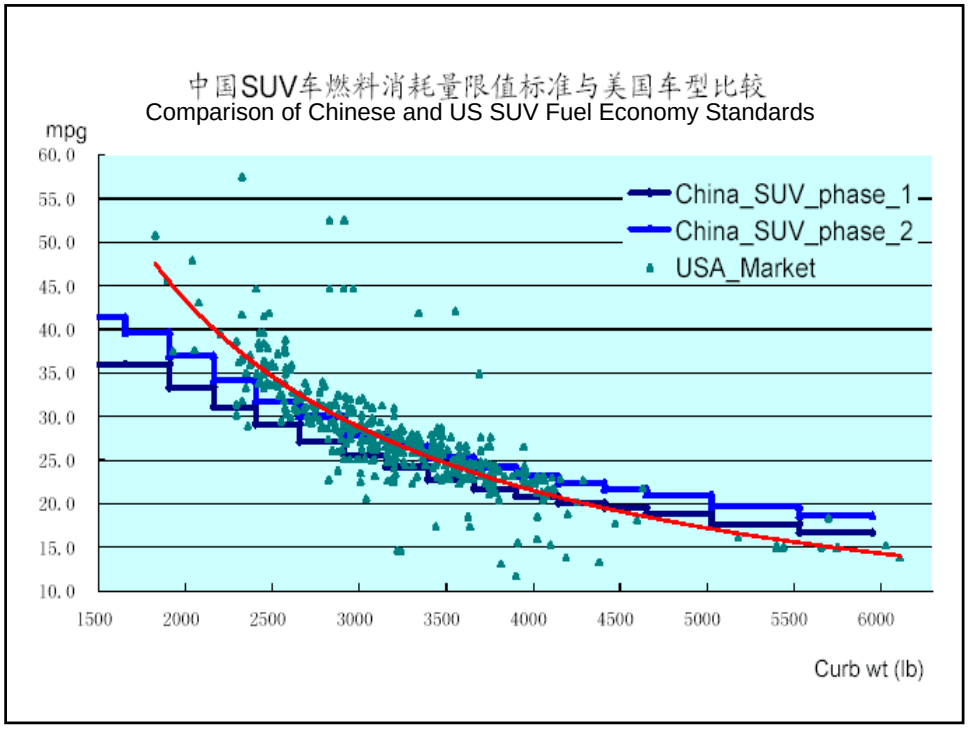
- 对于新认证车，第一阶段的执行日期为2005年7月1日，第二阶段的执行日期为2008年1月1日。
  Newly approved vehicles:
  July 1, 2005 for Phase I; January 1, 2008 for Phase II.
- 对于在生产车，第一阶段的执行日期为2006年7月1日，第二阶段的执行日期为2009年1月1日。
  Vehicles in production:
  July 1, 2006 for Phase I; January 1, 2009 for Phase II.

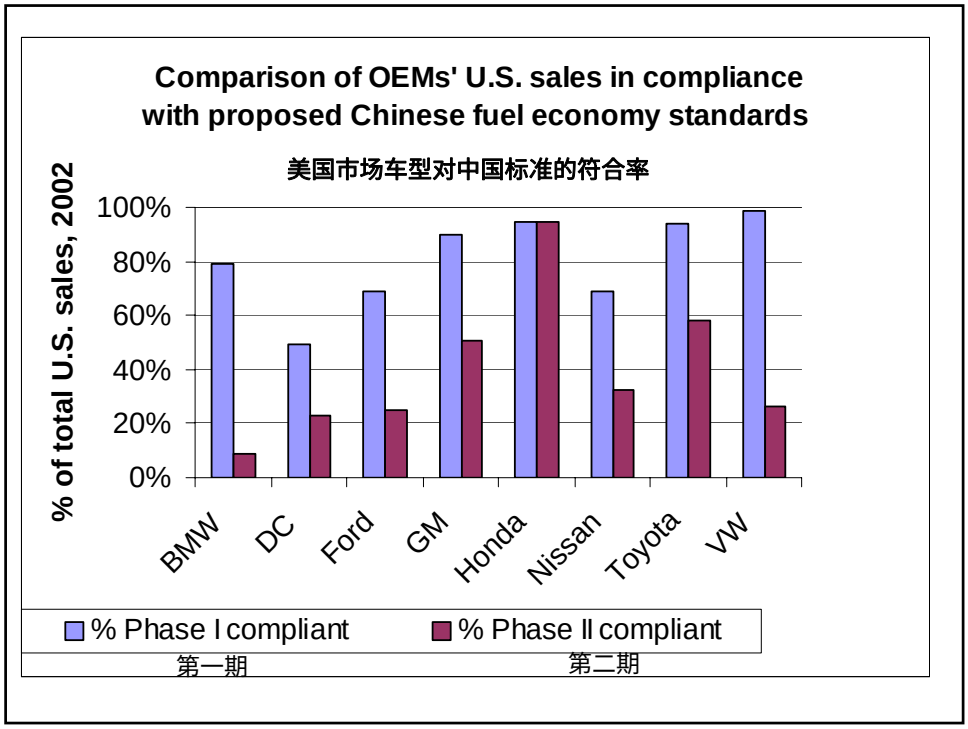
4.《乘用车燃料消耗量限值》标准的水平比较
Chinese and International FE Standards




乘用车燃料消耗量限值
Limits of fuel consumption for passenger cars
燃料消耗量(l/100km)
17
15
13
11
9
7
5
500
750
1000
1250
1500
1750
2000
2250
2500
整备质量（kg）
phase 1
phase 2
wards 2002


中国乘用车燃料消耗量限值标准与美国车型比较
Comparison of Chinese and US Fuel Consumption Standards
mpg
60.0
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
Curb wt (lb)
China_phase_1
China_phase_2
USA_Market


中国SUV车燃料消耗量限值标准与美国车型比较
Comparison of Chinese and US SUV Fuel Economy Standards
mpg
60.0
55.0
50.0
45.0
40.0
35.0
30.0
25.0
20.0
15.0
10.0
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
Curb wt (lb)
China_SUV_phase_1
China_SUV_phase_2
USA_Market


Comparison of OEMs' U.S. sales in compliance with proposed Chinese fuel economy standards
美国市场车型对中国标准的符合率
% of total U.S. sales, 2002
100%
80%
60%
40%
20%
0%
BMW
DC
Ford
GM
Honda
Nissan
Toyota
VW
% Phase I compliant
% Phase II compliant
第一期
第二期

II.《乘用车燃料消耗量限值标准》实施的重要意义和作用
Significance of Implementation

1. 《乘用车燃料消耗量限值标准》的制定，使得我国汽车强制性标准体系得以完善，结束了我国没有汽车节能标准的状况

   The standard makes the Chinese mandatory vehicle standard system a complete system, and marks the end of China's void in vehicle energy efficiency standards.

2. 燃料消耗量限值标准的出台，很大程度上将促进我国汽车的技术水平提高，对企业、消费者和社会有重要意义

   The publication of the standard will strongly promote improvements in the Chinese vehicle technology level. It will have a significant impact on enterprises, consumers, and society.

3. 汽车燃料消耗量限值标准的出台，面临我国汽车产业发展的重要时期。

   The standard was published at an important period in auto industry development.

4. 限值标准是相关政策和法规的重要基础和依据。

   The standard is the foundation for its related policies and regulations.

III. 我国目前所面临的问题 Current Problems

1. 中国汽车保有量近几年来发展较快，增大了节能的压力，部分车型大型化趋势明显。

   Rapid increase in vehicle population and the tendency toward heavy-duty vehicles is leading to increased pressure on energy efficiency .

2. 中国石油的消耗总量和进口依存度带来的能源安全问题凸显

   Oil consumption and oil dependency have triggered energy security problems.

3. 我国汽车节能标准法规体系还不完善，作用有限，还需要其它政策的配套

   Chinese vehicle standard & regulation system is incomplete; its role is limited and supporting policies are needed.

4. 政府部门的组织、落实及配套措施和政策力度不够

   Lack of government measures and policies on organization, implementation, and support.

5. 车辆产品的管理体制不够统一和协调。

   Lack of consistency and agreement in vehicle products administration.

IV. 政府应加大标准的实施力度，并完善配套制度
Recommendations to strengthen standard implementation and its support system

1. 将汽车燃料消耗量限值标准在汽车产品管理中实施。
   The fuel efficiency standard should be implemented by the Vehicle Products Administration.

2. 国家发展和改革委员会和国家质量监督检验检疫总局加强对产品的准入和生产一致性的监管，并确保国产和进口车的国民待遇。
   NDRC and the General Administration of Quality Supervision, Inspection and Quarantine must strengthen their supervision and administration of vehicle products market entry and conformity, and guarantee both domestic and import vehicles receive equal treatment.

3. 积极研究经济性措施，对不符合标准的产品实施惩罚。
   Conduct research on economic measures to penalize products that fail to meet the standard.

4. 增加公共预算，支持节能项目的实施。建立申报、公布、标识制度，增强对社会的信息和宣传。
   Increase the Public Budget to support the implementation of energy efficiency projects. Establish a declaration, publication, and labeling system and strengthen public education and information dissemination.

5. 加强政府部门之间的配合和协作。
   Strengthen the cooperation and coordination between government authorities.

V. 其他需进一步开展的工作 Next Steps

1. 尽快实施“燃油税”。
   Implement the Fuel Tax as soon as possible.

2. 完善燃料消耗量标准法规，对轻型商用车辆及其他类型车辆提出限值要求。
   Complete other fuel efficiency standards and regulations, propose limit requirements for light-duty commercial vehicles and other vehicle types.

3. 修改完善“节能法”，建立协调、规范的管理体制。
   Amend the Energy Conservation Law to establish a comprehensive and standardized administration system.

4. 改革车辆产品的管理体制，建立长效的汽车节能制度。
   Reform the vehicle products administration system to establish an effective vehicle efficiency system.

5. 政府机构应当掌握《乘用车燃料消耗量限值标准》的实施状况
   Keep the government authorities informed of the implementation status of the standard.

6. 政府部门应当适时组织对已经发布的汽车燃料消耗量限值标准进行修订（标准的劣化、试验方法的改变以及节能目标的变化等）
   Government departments should organize the revision of published vehicle fuel efficiency standards at the appropriate time.

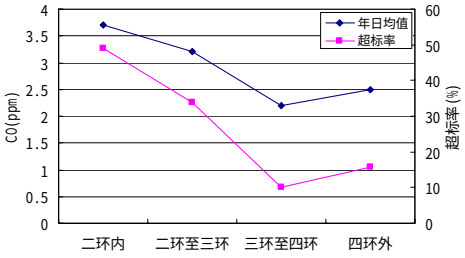
油品改善与人体健康
Fuel Quality Improvement and Public Health

傅立新 Fu Lixin
清华大学 Tsinghua University

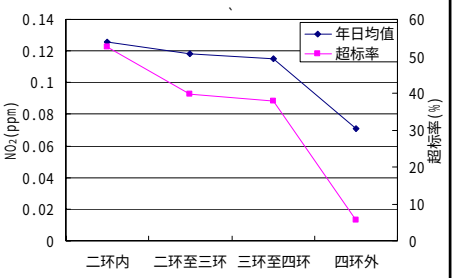
机动车污染威胁人体健康
Vehicle Pollution Threatens Health

- 机动车污染对城市空气质量的恶化有很大影响
  Vehicle emissions contribute greatly to the deterioration of urban air quality.
- 人口活动水平较高的城市中心区域由于车流量大、交通拥堵，人体暴露的影响尤为严重
  The downtown area is a high human exposure zone where heavy traffic and concentrated human activity coexist.

高暴露微环境
High Exposure Microenvironment



CO

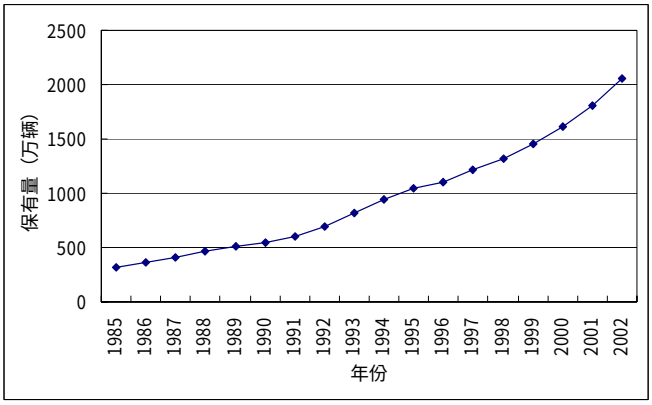


NO_2

道路边空气质量状况(北京,2003) Roadside Air Quality (Beijing)

Intake fraction 30 times higher than power plants!

中国民用汽车拥有量
Personal Vehicle Population of China



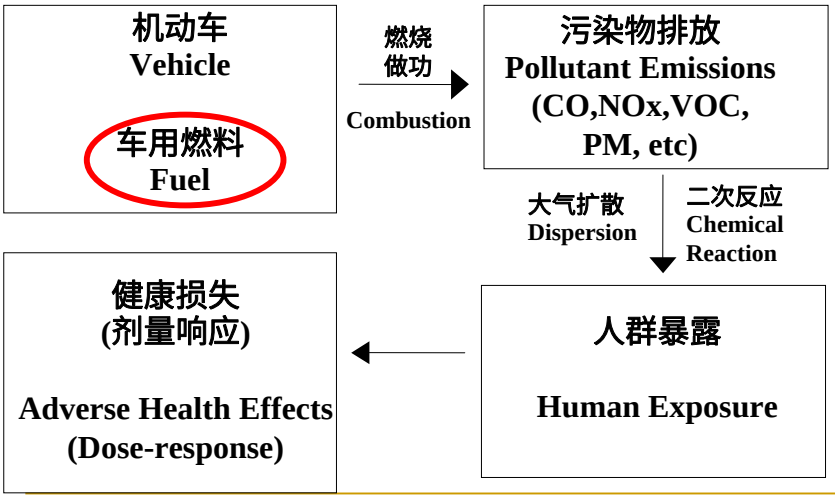
车辆拥有量和车用燃油消耗仍将保持持续快速的增长

Vehicle population and fuel consumption continue to increase

污染物对人体健康的影响
Adverse Health Effects of Different Pollutants

污染物	主要危害
Pb	阻碍儿童智力和身体的发育，引起阅读和理解上的障碍 影响成年人心血管系统，与高血压及心肌梗塞病症相关性较高
CO	阻止血红蛋白向人体组织输送氧气，使体内缺氧 长期处于低浓度污染状态，可患动脉硬化、脑溢血和末梢神经炎等疾病，对胎儿和幼儿的生长发育有很大的影响
NO_x	刺激呼吸道，导致肺功能下降
PM	主要影响心脏和呼吸系统疾病
HC	当中的有毒物质有很强的致癌作用
Ozone	臭氧对呼吸系统有很大的影响，如胸痛、咳嗽、呼吸不畅等 会损害肺部机能

对人体健康的影响链
Adverse Health Impacts Chain



油品改善对健康影响
Fuel Quality Impacts Health

- 汽油无铅化使得大气中的铅含量明显下降,儿童体内的血铅水平明显下降

  Unleaded gasoline has decreased the lead concentration in the ambient atmosphere. The blood lead levels of children has declined.

- 油品改善配合三元催化转化器的广泛使用，在一定程度上控制了机动车污染恶化的势头.

  Fuel quality improvement and “three-way catalytic converter” application helped to control the deterioration of vehicle pollution.

对油品质量改善的需求
Need for Fuel Quality Improvement

- 污染形势依然严峻,高暴露微环境尤其值得关注

  Vehicle pollution is still serious and more attention should be paid to high exposure microenvironment.

- 中国开始对轻型车和重型采取欧洲二号标准，目前正在制定欧洲三号和四号标准

  China has adopted Euro II for Light Duty Vehicles and Heavy Duty Vehicles. Euro III and Euro IV are under consideration.

对油品质量改善的需求
Need for Fuel Quality Improvement

- 油品改善是加严机动车排放标准和采用更先进的机动车排放控制技术的先决条件

  Better fuel quality is the prerequisite for advanced vehicle technology and thus lower emissions.
- 改善车用燃油品质同时也是控制在用车排放的有效手段，其优势在于能迅速对整个车队产生效果

  Fuel quality improvement is an effective tool for controlling vehicle emissions.

汽油
Gasoline

- 通过降低汽油的饱和蒸气压，可以迅速降低整个车队的蒸发排放

  By reducing vapor pressure, the emissions of in-use vehicles can be reduced.
- 通过汽油组分的改良，可以降低尾气排放的光化学活性，减低臭氧带来的健康损失

  By modifying its composition, the reactivity of exhaust can be reduced and adverse health effects decreased.

汽油
Gasoline

- 汽油调和组分的控制有助于削减机动车有毒物质的排放

  Changing its composition can reduce toxic emissions.
- 在选用汽油添加剂的时候需要谨慎以防止对人体健康产生意想不到的负面影响

  We must be cautious in using gasoline additives to avoid unexpected adverse health effects.

汽油
Gasoline

GB 17930－1999车用无铅汽油标准 *vs.欧洲油品*

GB 17930－1999 Unleaded Gasoline Standard *vs. European Standards*

指标	单位	Euro-III, IV		Euro-I, II		GB 17930	
		Min.	Max.	Min.	Max.	Min.	Max.
RVP	kPa	56.0	60.0	56	64		88 74
馏程							
T10	℃			42	58		70
T50	℃			90	110		120
T90	℃			155	180		190
烯烃	% v/v		10		20		35
芳香烃	% v/v	28.0	40.0		40		40
苯	% v/v		1.0		5.0		2.5
硫	mg/kg		100		400		800

柴油
Diesel

- 降低硫含量可以直接降低在用车颗粒物排放
  Particle matter (PM) emissions can be decreased by reducing the diesel sulfur content.
- 柴油品质的改善使得一些较为成熟的针对在用柴油车/发动机的排放改造技术的应用成为可能
  Fuel quality improvement will enable the application of some good diesel vehicle/engine retrofit technologies for in-use vehicles.
- 如氧化型催化转化器和催化型颗粒物捕集器等
  Examples: oxidation catalyst and catalytic PM filters

柴油
Diesel

GB 19147-2003车用柴油标准*vs.欧洲油品*
GB 19147-2003 Diesel Fuel Standards *vs.European Standards*

指标	单位	EU-III, IV		EU-I, II		GB 19147	
		Min.	Max.	Min.	Max.	Min.	Max.
十六烷值		52.0	54.0	49	53	45~49	
馏程:							
- T50	℃	245		245			300
- T90	℃			320	340		355
- T95	℃	345	350				365
闪点	℃	55		55		45~55	
硫	mg / kg		300		500		500
氧化安定性	mg / ml		0.025		0.025		0.025

替代燃料
Alternative Fuels

- 对在城市核心区域行驶频率较高的运营车辆考虑进行替代燃料转换

  Alternative fuel conversion should be considered for commercial fleets in urban center areas.
- 关注颗粒物排放的粒径分布与组成，尤其是对人体健康更为有害的细颗粒物

  Concerns: size, distribution, and composition of PM emissions, especially for fine particles which have more significant adverse health effects.

替代燃料
Alternative Fuels

- 关注污染物排放的臭氧生成潜势／光化学活性

  Concerns: photochemical reactivity, ozone generation potential
- 根据城市的实际特点选取合适的替代燃料类型，最大限度的降低对人群健康的影响

  Select the appropriate alternative fuel types based on each city's needs and reduce the adverse health effect to the maximum extent.

总结
Conclusion

- 为了降低机动车排放对人体健康的影响，必须继续改善油品质量

To reduce the adverse health effects of vehicle emissions, vehicle fuel quality must continue to be improved.

- 对机动车排放的污染物进行更细致的分析和控制，包括颗粒物粒径分布和成分、有毒物质排放、尾气光化学活性等，这也给油品提出了更高的要求

More detailed analysis and control is required of PM size distribution and composition, toxic emissions and exhaust reactivity. This has put higher requirements on fuel quality.

总结
Conclusion

- 必须将对人体健康影响的考虑全面融入制定油品标准的整个过程和与车用燃油相关的项目中

The impact on public health must be incorporated into the entire process of developing fuel quality standards and alternative fuel programs.

Energy Crisis in China:
What is to be Done?
中国的能源危机：需要采取什么行动？

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Executive Summary 摘要

- China faces a serious new energy crisis
  - Although the shortage is a serious problem, the real crisis lies in the inadequacy of investment in energy efficiency
- The key issue is: how can investment be attracted to energy efficiency
- Unless this problem is solved, China will have great difficulty in achieving its overall economic development goals for 2020!!

- 中国正面临严重的能源危机
  －能源短缺是一个问题，但真正的危机在于能效投资不足
- 关键是如何吸引能效投资
- 只有解决这个问题，中国才可能实现2020年的发展目标

China's Energy and Development Goals for 2020
中国2020 年的能源和发展目标

Goals (compared with 2000)

- GDP -- Quadrupling
- Urbanization -- 65% vs 35% now
- Energy Use -- Doubling

But energy demand is now growing so rapidly that the development goals are in jeopardy!

发展目标（与2020年相比）

- *国民经济——翻二番*
- *城市化——从目前的35%提高到65%*
- *能源消费——翻一番*

目前能源需求增长迅速，对2020年发展目标造成威胁

Environmental Energy Technologies

Current Energy Crisis
当前的能源危机

- In 2004, widespread power shortage (24 of 31 provinces)
- Electric power generators facing squeeze in profit margins
- Soaring coal prices
- Transportation bottlenecks for coal
- Significant economic losses
- Potential for loss of investor confidence in China

- 2004年大面积电力短缺（24个省）
- 电力生产商利润空间缩小
- 煤炭价格不断上涨
- 煤炭运输瓶颈
- 巨大的经济损失
- 有可能影响投资商的信心

Environmental Energy Technologies

China's Response: Fast and Furious
中国的反应：快速且强劲

Boom in power plant construction

- 40+ GW added each year
- Mostly coal-fired
- Installed capacity at 400 GW in mid-2004
- Another ~200 GW under construction

This has not been accompanied by an increased investment in energy efficiency

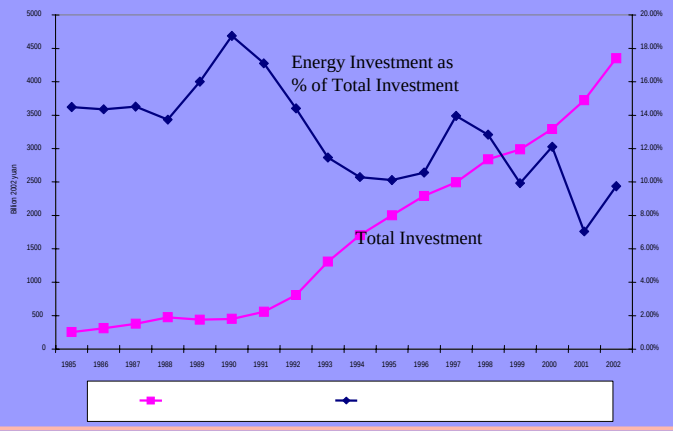
新建大量电厂

- 每年新增4万兆瓦以上
- 大多是燃煤发电
- 2004年夏季装机容量达40万兆瓦
- 另有在建电厂20万兆瓦

但是能效投资并没有增加

Environmental Energy Technologies

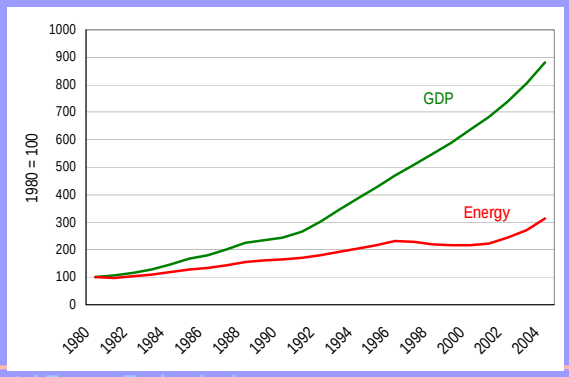
Investment in energy sector lags total investment – hence energy shortage
能源领域投资低于总投资是能源短缺的主要原因



Environmental Energy Technologies

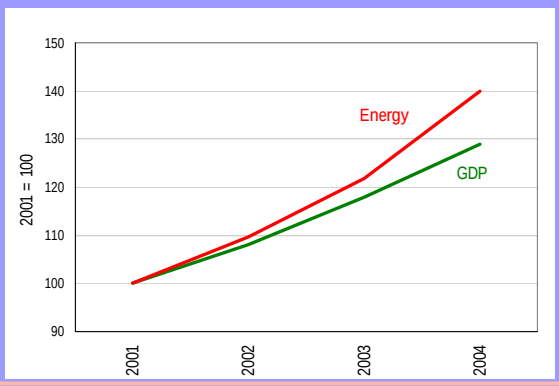
China has demonstrated that a rapidly developing nation can decouple energy and GDP growth with bold policies initiated in 1980

中国80年代的经验表明，以较低能耗水平实现经济快速增长是可能的



But Since 2001 these policies are far from achieving energy growth of 50% of GDP growth!!

然而2001年以后的政策实践，与经济翻二番、能源翻一番的目标相距甚远



China's National Energy Strategy
中国国家能源战略

Energy Development and Efficiency have equal Role (Emphasis on Efficiency)

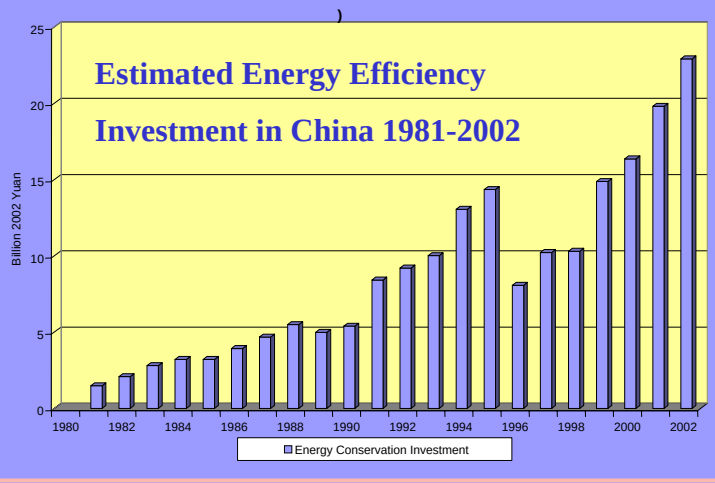
- But supply investment at *RMB 424 billion* while energy conservation investment at *RMB 23 billion* in 2003 !!

能源开发与节约并重（节能优先）

- 然而2003年发电投资4240亿元，节能投资只有230亿元

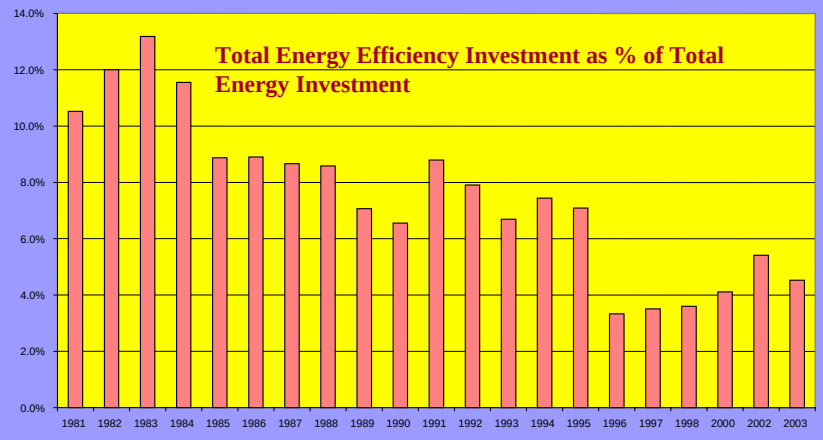
Environmental Energy Technologies

Energy Efficiency Investment Continues to Grow
能效投资呈增长趋势



Environmental Energy Technologies

Energy Efficiency Investment has Declined as a Proportion of Total Energy Investment
相对于能源部门总投资额，能效投资所占的比重却在不断下降



What is to be Done: Increase Energy Efficiency Investment Substantially!!
需要采取什么行动：大力增加能效投资

- Restoring energy efficiency investment to early 1980's level (that is 10-15% of supply investment) would require
  - RMB 40-60 billion/year, 2 to 3 times current level
- How? Many possibilities:
  - Electricity systems benefits charges are one way
  - Efficiency in rate base is similar
  - Special need for energy efficiency investments in industry for best international practices

使能效投资恢复到80年代的水平(占发电投资的10-15%)

－年投资400-600亿元，相当于目前水平的2-3倍

实现的途径包括：

－系统效益收费

－以电价为基础收取一定比例的能效基金

－大力推动工业部门能效投资

Enhancing Government Investment in Implementation and Enforcement: An International Perspective

加大政府在执行和实施方面的投入：国际展望

Barbara Finamore, Senior Attorney
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Presentation at
China Sustainable Energy Program
7th Senior Policy Advisory Council Meeting
November 12, 2004 Kunming, China

中国可持续能源项目
高级政策顾问委员会第七次会议
2004 年 11 月 12 日，中国昆明

Essential Roles of Central Government
中央政府的主要角色

- Provide Strong Leadership
- Establish Integrated, Comprehensive Policy Frameworks
- Develop Codes and Standards
- Resolve Policy Conflicts
- Provide Funding for Local Implementation/Enforcement

- 提供强有力的领导
- 建立系统全面的政策框架
- 建立规范和标准
- 解决政策冲突
- 为地方政府的执行和实施提供资助

Local Government Implementation
地方政府的执行

- Building Codes
- Appliance Standards
- Demand-Side Management Programs
- Regular (3-5 Year) Updates
- Enforcement Actions

- 建筑节能标准
- 家用电器标准
- 需求侧管理项目
- 定期更新（3-5 年）
- 强制措施

Funding Needed For:
资金需求方面：

- Staff Salaries and Training
- Inspections
- Monitoring
- Verification
- Third Party Reviews
- Response to Violations

- 人员工资与培训
- 检查
- 监督
- 认证
- 第三方审查
- 违规措施

US Govt. Funding Supports Local Implementation
美国政府对地方政府实施的资助

- State Energy Program Grants
- Technical Assistance Reports
- Training Materials
- Best Practices Guides
- Implementation Strategies
- Case Studies and Comparisons

- 国家能源计划补贴
- 技术援助报告
- 培训材料
- 最佳实践指南
- 实施战略
- 案例研究和比较

US Govt. Funding: Results
美国政府资助：结果

Independent study found annual energy cost savings of 1.17 million source Btu's and $7.23 in annual energy cost savings for each $1 of US funding used for grants, technical advice, and oversight to support local governments

独立调查表明，每年平均节约能源成本117 万 Btu；在对地方政府的支持上，在津贴、技术咨询和监督上每 1 美元的投入每年可获得 7.23 美元的能源成本节约

Example: Building Codes
示例：建筑节能标准

- US Govt. develops core resource materials and provides financial and technical assistance to States to upgrade and implement their minimum building energy codes
- Annual funding: US $4-5 million
- Results in energy savings of nearly $700 million per year

- 美国政府开发了基本材料并向各州提供资金和技术支持，以改善和实施其建筑最低能效标准
- 年资助金额：400-500 万美元
- 年节约能源近 7 亿美元

Local Implementation: California Building Codes
地方政府实施：加州建筑节能规范

- Detailed Requirements Involving:
- Architect or Designer
- Builder or Developer
- General Contractor and Subcontractors
- Inspectors and Plan Checkers
- Owner/First Occupant

- 详细要求涉及：
- 建筑师或设计师
- 建筑商或开发商
- 总承包商和分包商
- 监督员和计划检查员
- 所有者/首位使用者

Local Implementation: California Building Codes
地方政府实施：加州建筑节能规范

Requirements Include:

- Certificate of Compliance
- Mandatory Measures Checklist
- Installation and Insulation Certificates
- Manual With Instructions for Operating and Maintaining Building

要求包括：

- 达标认证
- 强制措施核查表
- 安装和绝缘措施认证
- 建筑物使用和维护说明手册

European Union
欧盟

- Recommends minimum level of investment for EE/DSM programs of 2 percent of the total net revenue of each member state from electricity and natural gas sales
- Investments must be additional to current energy efficiency activities financed from the state budget
- Would greatly boost implementation

- 建议：每个成员国 在能效和需求侧管理方面计划投资的最低水平为该成员国全部电力和天然气销售净收入的 2%
- 投资必须是国家财政预算节能资金的额外部分
- 将大力推进实施

Australia Appliance Energy Standards and Labeling
澳大利亚家用电器节能标准和标识

Role of National Government:

- Define test procedures for measuring energy consumption
- Set minimum performance criteria
- Define noncompliance penalties
- Check testing program
- Certain enforcement powers

中央政府的角色：

- 为衡量能源消耗确定测试程序
- 设立最低性能标准
- 确定不达标（违规）惩罚措施
- 检查测试计划
- 授权强制措施

Australia Appliance Energy Standards and Labeling
澳大利亚家用电器节能标准和标识

Local Governments Responsible for Enforcement, But:

- Local Enforcement Regulations Vary
- Penalties Not Always Strong Enough
- Enforcement Proceedings Rare
- Oversight Not Very Transparent

地方政府负责实施，但是：

- 地方实施法规各异
- 惩罚措施有时力度不够
- 强制执行的案例很少见
- 监督不是很透明

Australia Appliance Energy Standards and Labeling
澳大利亚家用电器节能标准和标识

Independent Panel Recommendations:

- Public Reporting of Violators
- Overall Uniform National Framework
- Wider Range of Sanctions
- New National Organization to Promote Greater Enforcement Consistency

独立委员会的建议：

- 违规公示
- 统一的国家级框架
- 广泛的制裁措施
- 新的国家机构，促进一致性

健全财税政策，促进节能事业发展
PERFECTING FISCAL AND TAXATION POLICIES TO SUPPORT ENERGY SAVING DEVELOPMENT

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2004年11月/Nov.2004

演讲主要内容/Main Contents

- 财税政策在政府节能政策中的地位和作用
- 运用财税政策支持节能的现状和问题
- 促进节能事业发展的财税政策体系设想
- 相关配套措施建议

- The role of fiscal and taxation ("F&T") policies in supporting energy saving development
- Energy saving related F&T policy issues
- Thoughts and suggestions on F&T policies to support energy saving development
- Important counter measures

1、财税政策在政府节能政策中的地位和作用
The Role of F&T Policy to Support Energy Efficiency Development

- 财税政策是政府解决外部性问题的最有力手段

  为了规范市场主体在能源使用和节能行为中的外部效应，促进节能事业发展，需要政府采取相应的经济、法律以及必要的行政手段对此进行干预和调控，而财税政策是其中最灵活、有效和重要的政策措施之一。

- **One of the most effective tools to control externalities:**

  F&T policy is a flexible, effective, and important policy tool for government to internalize externalities from energy usage and energy saving.

1、财税政策在政府节能政策中的地位和作用
The Role of F&T Policy to Support Energy Saving Development

- 运用财税政策可以充分体现政府的政策意图和战略导向。
- 节能技术的研究开发，既是一项基础性研究，也是应用性的科技推广活动。
- 发挥财税政策作用和效率，还需要协调与其他政策措施和手段之间的关系。

- **F&T policies embody government policy intentions and strategic moves.**
- **The R&D on energy efficiency technology also includes technological application.**
- **It is necessary to coordinate with and complement other government policies and tools.**

2、运用财税政策支持节能的现状和问题
Energy Saving Related F&T Policy
Current Situation and Problems

- 所采用的财税政策与经济改革进程及国家行政管理方式紧密相关。
- 原有的节能财税政策没有成为独立的激励政策。
- 原有财税政策未形成完整的体系，其作用目标模糊。
- 1994年财税体制改革后对国内企业节能的财税优惠政策几近空白。
- 政策手段单一，缺乏弹性。

- F&T policies were subject to the economic reform process and the government administrative approach.
- F&T policies did not become a set of independent incentive policies during the economic transition.
- F&T policies under the traditional system never became a complete set of policies. Furthermore, its policy objectives were vague.
- After the reform of F&T system in 1994, preferential F&T policies for energy saving were lacking.
- Policy tools were too simple and lacked elasticity.

2、运用财税政策支持节能的现状和问题
Energy Saving Related F&T Policy
Current Situation and Problems

- 节能工作尚未摆到各级政府财政应有的位置。
- 对节能产业的投入严重不足。
- 节能方面的财税政策手段单一。
- 节能方面的财税政策的效果不甚理想。

- Energy efficiency not given proper priority in government agendas
- Lacks sufficient investment in energy saving
- The F&T policies implemented to support energy saving are too simple and lack elasticity
- Policy implementation is lacking.

3、促进节能事业发展的财税政策体系设想
Thoughts and Suggestions on F&T Policies to Support Energy Saving Development

财税政策本身是一个复杂、综合的体系。其中包括税收减免、抵押贷款、政府采购、现金回扣补贴、加速折旧、科研资助、开征能源税、收费以及中介机构扶持等。

- **F&T policies are comprehensive, include tax cuts and deductions, mortgage loans, government procurement, cash-based subsidies, accelerated depreciation method, support scientific research and development, energy related taxes and surcharges and support on intermediaries.**

3.1 政府预算投入政策
Investment Policy through Government Budget

- 在经常性预算中，设立节能支出科目。
- 在建设性预算中，加强财政的节能投资力度。
- 完善政府间转移支付制度，设立中央对地方的节能专项拨款。

- **Include Energy Efficiency Spending in the Current Budget;**
- **Increase energy efficiency spending in the Construction Budget;**
- **Support local governments on energy efficiency through earmarked funds.**

3.2 鼓励节能的税收政策
Taxation Policies to Support Energy Saving

- 促进节能投资的税收政策
- 引导节能消费的税收政策
- 调节节能产品进出口的税收政策
- 鼓励节能技术推广的税收政策

- Support energy efficiency investment
- Encourage energy conservation among consumers
- Support energy-efficient imports and exports
- Encourage energy efficiency technology

3.2.1 促进节能投资的税收政策
Taxation Policies to Support Energy Saving Investment

- 所得税
  相关投资和费用的抵免
- 增值税
  对节能设备的技改投资实行消费型增值税政策，对生产最终节能产品的企业实行增值税即征即退政策。
  但要严格限定优惠范围和时限，客观认识增值税优惠政策的效果。

- Income tax:
  1) Allow deductions for energy efficiency related investment and expenses from taxable income.
- VAT:
  1)Adopt consumption VAT for firms' investment in energy efficiency technology upgrades.
  2)Adopt immediate VAT refund for firms that produce energy saving products for end-users.
  3) Set clear limits on the scope and time frame for these preferential taxes and be objective in assessing the impact of adopted VAT policies.

3.2.2 引导节能消费的税收政策
Taxation Policies to Direct Energy Saving Consumption

- 调整现行的消费税政策
- 调整车辆购置税、车船使用税政策
- 尽快开征燃油税

- **Adjust current Excise Tax**
- **Adjust Vehicle Purchase Tax and Vehicle and Ship Usage Tax**
- **Initiate Petroleum Consumption Tax as soon as possible**

3.2.3 调节节能产品进出口的税收政策
Taxation Policies for Energy Saving Related Import and Export

- 对某些节能设备和产品适当减免进口关税和进口环节增值税；
- 根据国家能源政策导向，调整出口商品退税率，适当提高鼓励类出口产品的退税率，降低甚至取消限制类出口产品的退税率。

- **Allow certain deductions or exemptions on Custom Duty and Import VATs for certain energy efficiency equipment imports.**
- **Allow higher tax refunds to encourage energy-efficient exports and low or no tax refunds for restricted exports. (Subject to national energy policies).**

3.2.4 鼓励节能技术推广的税收政策
Taxation Policies to Encourage Technology Promotion for Energy Saving

- 对从事节能技术开发、转让取得的收入免征营业税；
- 单位和个人为节能技术推广提供培训、咨询等服务所得收入，在计征企业所得税和个人所得税时给予减免优惠。

- Exempt Business Tax for income generated from energy saving technology development and transfer.
- Exempt or deduct Corporate Income Tax and/or Individual Income Tax for income generated from energy saving related services including technology transfer, training, consulting, and contracting.

3.3 政府采购政策
Government Procurement Policies

- 节能应当成为政府采购的政策目标之一
- 加大节能产品认证力度
- 财政部与国家发改委共同制定并发布政府节能采购目录
- 各级政府机关采购人优先采购节能产品
- 采购人必需采购纳入节能采购目录的产品
- 相应的制约措施

- Make energy efficiency a policy objective of government procurement.
- Strengthen the certification system for energy efficient products.
- Issue energy efficient product catalogue by the National Development and Reform Committee and the Ministry of Finance.
- Government procurement officers should choose energy efficient products from the Catalogue.
- Set restrictive counter measures.

4、相关配套措施建议
Important Supplemental Measures

4.1 坚持不懈提高公众节能意识

4.2 由国家权威部门制定能效标识

4.3 实行能源高价格政策

4.4 实行鼓励节能的金融配套政策

4.5 实行向节能产业倾斜的投资政策

4.1 Keep improving public awareness on energy efficiency.

4.2 Establish a national energy efficiency labeling system.

4.3 Adopt high pricing policies on energy consumption;

4.4 Adopt supportive financial and banking policies.

4.5 Adopt supportive policies for energy efficiency investments.

4、相关配套措施建议
Important Supplemental Measures

4.6 节能要与产业结构升级联系起来

4.7 将节能与环境保护政策统筹考虑

4.8 明确政府在节能中的管理方式与管理边界

4.9 规范能源管理体制

- Link energy efficiency with upgrades of industrial structure;
- Consider energy efficiency policies and environmental protection policies;
- Clearly define government administrative measures and scopes in energy efficiency development;
- Improve China’s energy administrative system.

促进可持续发展的电价政策
Electricity Pricing Policies That Promote Sustainable Development

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一、全面改进电价结构

I. Improve the Electricity Price Structure

1.扩大峰谷分时电价制度执行范围

2. “因地制宜”调整各时段价差

3. 负荷季节性强的地区实行“季节性电价”

4. 鼓励设立“尖峰电价”

5. 水电比重大的地区实行“丰枯电价”

6. 上网电价体系设计相应调整.

1. Expand the implementation of a time-of-use (TOU) pricing system.

2. Adjust price differences between different time periods according to local conditions.

3. Implement “seasonal electricity pricing” in regions with strong seasonal differences.

4. Encourage “critical peak pricing.”

5. Implement “seasonal pricing” in regions with high hydropower share.

6. Adjust the design of interconnection tariff system.

二、以反映用户对系统的成本耗费为原则调整分类差价

II. Reflect Users’ Costs

1.目前的用户分类及其差价关系与供电成本不符，“交叉补贴”严重

2. 应按电压等级、用户负荷特性设计用户分类

3. 近期调高电价应把居民电价过低作为重点解决问题之一

1. Current differential prices do not match power supply cost. There are excessive “cross subsidies.”

2. User classification to be designed according to voltage class and users’ load features.

3. Low residential tariff is a major issue for raising electricity prices in the near term.

三、外部成本内部化
III. Internalize External Costs

1. 环境、资源等外部成本未进入电力企业的会计成本
2. 必须大幅度提高排污费、资源税标准
3. 电价政策应鼓励发电企业增加环保投入。火电厂脱硫成本核定的原则、方法及个各网区的合理水平，应尽早确立。

1. **External costs like environment and resources not included in power enterprises' cost accounting.**
2. **Need a significant increase in pollution fees and resources tax.**
3. **Tariff policies should encourage investment in environmental protection. The principles and methods for desulfurization cost need to be established soon.**

四、规范、整合随电价征收的政府性基金
IV. Standardize and Integrate Government Funds

1. 促进可再生能源发展、实行需求侧管理均需公共资金支持
2. 通过电费附加筹集此类公共资金符合公平与效率原则
3. 此政策在国外已有成功经验

1. **Promoting RE development and implementing DSM both need public funds.**
2. **Raising these public funds through electricity surcharges is in line with the principles of fairness and efficiency.**
3. **There are already successful experiences for such policies in foreign countries.**

四、规范、整合随电价征收的政府性基金
IV. Standardize and Integrate Government Funds

4、规范、整合随电价征收的政府性基金

- 更名：“电力公益基金”。
- 增项：节能；促进可再生能源发展。
- 价外收取
- 资金统一分配

4. Standardize and integrate government funds collected along with electricity price

- Change name to “Public Benefits Fund”
- Add: energy efficiency and promoting development of renewable energy
- Surcharge
- Unified fund allocation

五、逐步扩大用户的自由选择权
V. Expand Consumers’ Right to Choose

1、在可竞争领域，市场机制是节约资源的最有效手段（“单边”、“双边”交易均可有直接的节约资源效果）

2、厂、网已分，不竞争则徒增交易成本

3、加快推行“大用户同发电企业直接交易”试点

4、为可再生能源发电企业与用户间的“绿色电力交易”做制度化安排

1. In competitive fields, market mechanisms effective in saving resources

2. Generation separated from grid, absence of competition increases transaction cost.

3. Speed up pilot work on “direct purchases for big consumers.”

4. Make institutional arrangements for “green power transactions.”

Tapping Utility Revenues: An International Perspective
激励电力公司投资DSM：国际视点

David Moskovitz
马德威
November 12, 2004
2004 年 11 月 12 日
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Energy Efficiency
能源效率

- Experience shows investment in end-use energy efficiency has large environmental and economic benefits
- Utility sector involvement is especially important
- Energy efficiency meets energy needs at half the cost of power supply

- 经验表明投资终端能效具有极大的环保和经济效益
- 电力公司的参与尤为重要
- 能效满足需求的成本是发电成本的一半

China Needs Energy Efficiency
中国需要提高能效

- Chinese researches show utility DSM could reduce the need for generation capacity by more than 100 GW by 2020
- China's energy intensity of 13 products in 7 industries is 6% to 36% higher than advanced countries

- 研究表明到 2020 年，需求侧管理可减少一亿千瓦装机需求
- 中国 7 大行业中 13 种产品的能源单耗比发达国家要高出 6% 至 36%

Energy Efficiency Power Plants
节能电厂

- Preliminary analysis for ADB shows building EPPs is much faster and cheaper than new conventional power plants
- Example: Jiangsu 600 MW EPP in 2 years average cost less than 8 fen/kwh

- 亚行项目的初步研究显示：建设节能电厂比建设新的传统电厂更快、更便宜
- 例如：江苏省过去两年内建设600兆瓦节能电厂，平均成本不到8分/千瓦时

Jiangsu Province Efficiency Power Plant 江苏省节能电厂

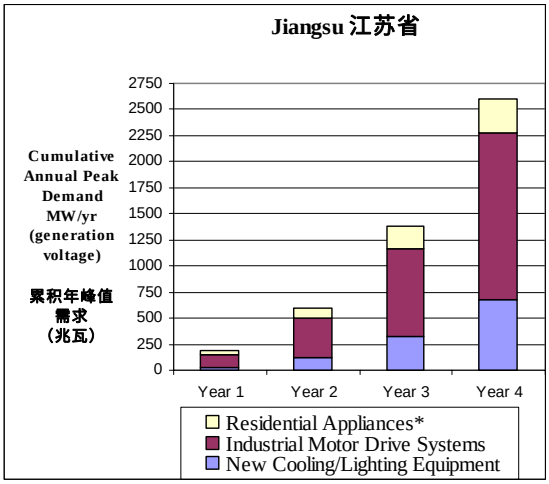
Electricity Savings (at Generation Voltage) 额定电压下的节电量

Peak Demand MW 峰值需求：兆瓦

Cumulative annual 年累积量				
New Cooling/Lighting Equipment 新装制冷/照明设备	33	122	323	680
Industrial Motor Drive Systems 工业电机拖动系统	117	373	840	1,600
Residential Appliances* 家用电器	39	105	215	326
Total 总计	**189**	**600**	**1,377**	**2,606**

•Residential cooling is included in the New Cooling/Lighting Equipment program
•家用制冷包含在新装制冷/照明部分

Jiangsu EPP
江苏省节能电厂



Barriers
障碍

- There are many barriers
- China lacks an adequate and stable DSM funding mechanism
- International experience shows that utility funding for DSM works well

- 存在诸多障碍
- 中国缺乏一个充足、稳定的 DSM 资金供给机制
- 国际经验表明电力公司实施的 DSM 效果很好

Efficiency is Integral to the Electric Sector
效率是电力部门不可或缺的因素

- Countries in Europe, the Americas, Australia, and the Pacific Rim and many states in the US make efficiency (DSM) part of the electric utility business
- The costs of DSM are included in prices that customers pay

- 欧洲、美洲、澳大利亚、环太平洋地区的国家以及美国的许多州都给予电力公共事业开展能效率（DSM）活动的义务
- DSM 的成本计入用户电费

Implications of Restructuring
电力重组的影响

- Restructuring of the electric industry in Europe, the Americas, and Australia did not eliminate the market barriers to DSM
- Most jurisdictions that had DSM programs before restructuring retained them after restructuring

- 欧洲、美洲和澳大利亚的电力行业重组并未消除 DSM 的市场障碍
- 多数在重组之前就实行 DSM 计划的地区在重组后仍保留这些计划

DSM and Industry Restructuring
DSM 和行业重组

- With restructuring, most jurisdictions assigned the DSM obligation to the unbundled distribution utilities
  - MA, CT, RI, NJ, Norway
- Some jurisdictions assigned the obligation to other entities – governmental or third-party under contract with the government
  - NY, OH, ME, OR

- 重组后，实施 DSM 义务多数情况下给予了放松管制的配电公司
  - 马萨诸塞州、康涅狄格州、罗得岛州、新泽西州和挪威
- 某些区域将职责指定给其他实体 — 政府机构或与政府签订合同的第三方机构
  - 纽约州、俄亥俄州、缅因州和俄勒冈州

Funding Methods
资金支持方法

- Included in electric prices, along with all other approved costs of service
  - e.g., NSW, MN, IL, FL, UK, Brazil
- Public benefits funding through a small surcharge on prices, often referred to as a system benefits charge (SBC)
  - DSM in most restructured markets, e.g., VT, WA, MA, CT, OH, NY, NJ

- 与其它所有批准的服务成本一起计入电费中
  - 例如：新南威尔士、明尼苏达州、伊利诺斯州、佛罗里达州、英国和巴西
- 在价格内增加一个小额附加费（通常称为系统效益费用，即 SBC）提供资金支持
  - 多数重组型市场中的 DSM，例如：佛蒙特州、华盛顿州、马萨诸塞州、康涅狄格州、俄亥俄州、纽约州和新泽西州

Recommendations for China
对中国的建议

- Make DSM utility obligations
  - DSM program design and delivery
  - RE through an RPS or feed-in tariff
- Treat the costs of DSM like any other utility cost and recover them through retail rates

- 明确 电力公司开展 DSM 责任
  - DSM 计划的设计和实施
  - 通过 RPS 或购电法开发可再生能源
- 同电力公司其它成本一样， DSM 成本，通过调整零售电价进行回收

在钢铁行业推广 “节能协议”试点的政策建议
Policy Recommendations for the Energy Efficiency Agreements Pilot Program in the Iron and Steel Industry

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背景 Background

- 我国是世界上最主要的能源生产和消费国家之一，虽然目前人均能源消耗量仅为世界平均水平的一半，但是单位产值能耗是世界平均水平的2倍多。
  China’s energy consumption per capita is half the world average, but its energy utilization per unit output is *twice* the world average.

- 工业消耗了总能源的三分之二、电能的四分之三
  Industry consumes 2/3 of total energy, and 3/4 of electricity.

- 我国能源短缺的形势相当严峻，已经对经济发展和人民生活造成了一定影响，今年夏天各地的拉闸限电和煤炭、石油等价格的持续上升就是一个明显的例子。
  China is suffering a serious energy shortage, seen in this summer’s electricity shortages and high coal and oil prices.

政府和工业界的努力
Government and Industry Efforts

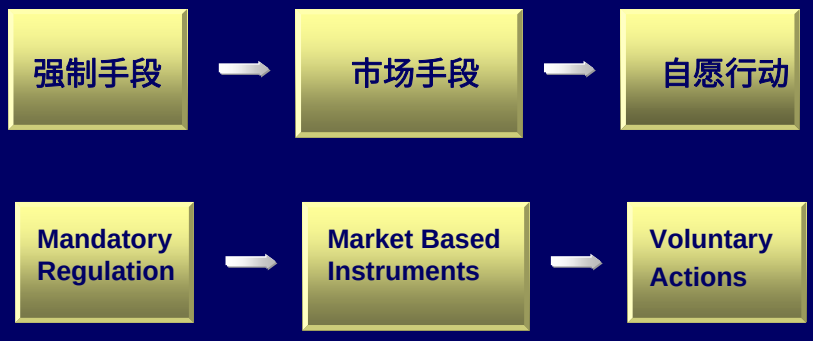
- 我国各级政府、工业界乃至企业都正在制订各种能源战略、规划和目标，试图舒缓能源和环境压力。但是，如何通过合理的政策措施，实现这些目标，是一个新的艰巨任务。而节能协议就是实现这些目标的一个重要政策手段。

All stakeholders are formulating strategies and plans to mitigate energy and environmental pressures.

A new issue has emerged: how to adopt policy measures to achieve the targets of these strategies and plans.

Energy efficiency agreements (EEAs) could be an important policy tool for energy saving and environmental protection.

能源和环境政策的发展
Development of Energy and Environmental Policies



节能协议
Energy Efficiency Agreements (EEAs)

节能协议是一个新的政策手段。它是指企业与政府部门或政府授权的组织签订协议，自愿承诺在一定时期内实现一定的节能目标。与此同时，政府机构应为企业提供相应的激励措施。

EEAs are a new policy mechanism in which enterprises can reach agreements with government authorities and promise voluntarily to reach certain targets for energy saving in a given period of time. In return, the government authorities provide incentive measures.

节能协议
Energy Efficiency Agreements (EEAs)

节能协议的目的是推动企业建立更高的节能目标。而政府则通过提供必要的激励政策支持，促进实现这一目标。节能协议能有效地把国家的战略目标与企业目标结合起来，促进国家和企业节能目标的实现。

EEAs encourage enterprises to set more aggressive energy efficiency targets.

The government needs to provide incentives to achieve its targets.

EEAs can link the strategic objectives of the country and enterprises, and help to achieve the energy saving targets.

节能协议
Energy Efficiency Agreements (EEAs)

●节能协议虽然通常是自愿的，但常与“非自愿”手段共同使用
EEAs are commonly enforced in conjunction with other “non-voluntary” regulations and policies.

与其他强制性手段相比，节能协议可为企业提供动态、灵活的机制
Compared with other mandatory measures, EEAs provide enterprises with a dynamic and flexible mechanism.

● 促进工业环境管理从末端治理向清洁生产转变
EEAs promote the transformation of industrial environmental management from end-of-pipe treatment to cleaner production.

● 鼓励政府和企业之间的对话和建立信任机制
EEAs encourage communications and confidence between government and enterprises, and between enterprises and the public.

国外节能协议的实施情况
International Experience

节能协议在发达国家为政府和工业界广泛采纳, 如加拿大、美国、澳大利亚、法国、德国、日本和英国等
EEAs are widely applied and accepted by industry and governments.

在一些欧洲国家的温室气体减排方面，企业可以选择用节能协议来代替或减少碳税。
In some countries, enterprises can choose EEAs to replace or reduce carbon taxes.

很多企业将参加节能协议作为改善其形象和竞争力的一个重要手段
Enterprises participate in EEAs as an important tool for improving image and competitiveness.

国外节能协议的实施情况
International Experience

政府也把建立节能协议作为改善管理效率的一个有效手段

Government established EEAs as an active measure for improving management efficiency.

在荷兰，有29个工业部门与政府签定了节能协议，从89年到00年，能源效率共提高22.3%。

In the Netherlands, 29 industrial sectors signed EEAs with the government. Energy utilization efficiency increased 2% each year. Totaling 22.3% from 1989 to 2000.

山东的节能协议试点
EEA Pilot Study in Shandong Province

- 在国家发展和改革委员会和能源基金会的支持下，一个节能协议的试点项目已经在山东实施

With the support of NDRC and the Energy Foundation, a pilot study of EEAs has been implemented

- 山东省经贸委与济钢和莱钢签订了节能协议

Energy efficiency agreements were signed between the Provincial Economic and Trade Commission and two iron and steel enterprises

- 这两个企业承诺实现在3年内节能30万吨标准煤的目标，这一目标比其最初目标高了13万7千5百吨

Energy Savings Target: 300,000 tons coal equivalent in 3 years. The two enterprises exceeded their original target by more than 137,500 tons

山东的节能协议试点
EEA Pilot Study in Shandong Province

2004年6月，对山东省节能协议试点情况进行了综合评估，评估专家组认为，试点一年来达到了满意的效果
In June 2004, the Shandong EEA pilot was evaluated.

政策、管理机制上都有创新
Achieved innovations in policy and management

两个企业取得了明显的节能和减污效果，主要指标实现了预期目标
Achieved energy saving and pollution reduction targets

国家发改委官员认为 Officials from NDRC:

应该加大试点工作，在整个钢铁行业推广节能协议。同时，要进一步加强相关政策和指标体系研究
Expand the pilot to the entire iron and steel industry

Carry out more studies on policy and indicator systems

将节能协议与排污费使用相结合的设想
Tentative Ideas for Joint Application of EEAs and Pollution Levy

- 节能协议的核心是推动企业建立更高的节能目标。但是，为实现这一目标，必须有激励政策与之配套。
EEAs push enterprises to create more aggressive energy saving targets. However, incentives need to be provided to help enterprises achieve these targets.

- 实施这项政策与现行的排污费征收、管理和使用政策并不矛盾，不需要国家财政、价格和环保部门对原有的法规和政策进行调整，也不需要出台新的政策。
No changes in existing regulations and policies are required, leading to easy implementation.

- 新的排污费条例实施以后，由于严格实施收支两条线，环保局不能直接使用这笔资金用于自身建设，因此它阻挠排污收费资金用于污染源治理的前提已经不存在。
After issuing the new Pollution Levying Regulation, EPBs will no longer be allowed to use pollution charges for themselves. The obstacle from EPBs will no longer to be an issue.

联合试点可行性的调查，山东济南
Site Investigation on the Possibility of Joint Application of EEAs and Pollution Levy in Jinan, Shandong

2004年8月，对山东省济南市排污收费情况及排污收费使用与节能协议相结合的可行性进行了调查。走访了一些企业和政府部门。

In August 2004, we investigated the possibility of jointly applying EEAs and pollution levy in Jinan. We visited various enterprises and government agencies.

济钢的排污收费额近几年一直在增长。估计2004年大约要达到660万元左右，而2005年估计要增加到1000万元左右。

The pollution charge paid by Ji-Gang has grown in recent years, estimating to reach 6.6 million RMB in 2004, and 10 million in 2005.

企业对排污收费的关注程度在增加，政府部门和企业都表示对联合试点的支持。

Enterprises pay more attention to the pollution charge. All government agencies and enterprises showed significant interest in and support of this program.

联合试点可行性的调查，山东济南
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对于加入节能协议的企业，可以在起草合同时，邀请地方财政和环保部门参与，在合同条款中写入：在企业实现一定节能目标的条件下，针对企业合理的节能减污项目计划，财政和环保部门保证将排污收费资金的一定部分作为专项资金，补助给该企业用于实施该计划，作为政府所提供的节能协议激励政策的一部分。

For those enterprises involved in EEAs, the contracts signed between the government and enterprise should include articles on incentives such as:

If the enterprise reaches a certain energy saving target, the local financial and environmental agencies shall provide funds from the pollution levy to the enterprise as a subsidy, used for energy saving and pollution reduction.

在钢铁行业开展试点的政策建议
Policy Recommendations for Energy Efficiency Agreements Pilot

- 钢铁行业是能耗大户，也是污染大户。近年来，随着经济的快速增长，各行业对钢铁的需求大增，推动了钢铁行业的投资热。新一轮的大规模投资不但会浪费大量的资金，同时也会造成能源过度消耗和污染程度的加重。

Iron and steel industry is a major energy user and polluter.

Rapid growth in demand for iron and steel has stimulated the rapid increase of investment in this sector.

Larger scale investment in this sector may trigger serious energy waste and pollution issues.

在钢铁行业开展试点的政策建议
Policy Recommendations for Energy Efficiency Agreements Pilot

前期国家发改委和能源基金会在山东推动了钢铁行业部分企业节能协议试点，我们建议选择钢铁行业作为联合实施“节能协议”和“排污收费优惠”的试点行业

Considering the success of the first phase of the pilot program in Shandong, we suggest establishing a new pilot program jointly applying EEAs and pollution levies.

可由国家发改委和环保总局联合下发一个指导性文件，同时发布《工作指南》，推动地方经贸主管部门、环保部门联合实施该计划。鼓励钢铁企业签订节能协议

NDRC and SEPA could jointly issue a government document and an Implementation Guideline, encouraging local economic and trade departments and environment departments to implement the program. They should encourage iron and steel companies to sign EEAs.

在钢铁行业开展试点的政策建议
Policy Recommendations for Energy Efficiency Agreements Pilot

经贸部门主要负责与企业签订节能协议，并监督实施。环保部门和财政部门参与确定企业具体得到的返还额度

The local economic and trade departments are responsible for signing EEAs with enterprises, and supervising the implementation.

Environmental protection departments and financial departments shall set the amount of subsides for enterprises.

钢铁协会和节能协会负责在钢铁企业中宣传该项活动的意义，鼓励企业参加节能协议，并承担相关政府部门委托的工作

Iron and Steel Association of China, the Energy Conservation Association of China can encourage enterprises to join the EEAs.

They can also take on other responsibilities designated by government agencies.

在钢铁行业开展试点的政策建议
Policy Recommendations for Energy Efficiency Agreements Pilot

在节能协议中，地方环保部门承诺通过拨款补助或贷款贴息间接实现排污费返还，企业承诺在一定时期内，实现一定的节能目标。具体的返还比例，应当由各地经贸、环保和财政部门根据具体情况，与参与协议的企业协商确定

Local environmental protection departments should promise to include enterprises in key pollution control programs, and provide subsidies and loan interests for enterprises.

The enterprises should promise to achieve certain energy saving targets within a certain period of time.

The amount of subsides should be determined through negotiation between government and enterprises.

实践证明，节能协议已经在欧洲等地发挥了重要的节能和环保作用。通过合理的设计，也将能在中国为政府和企业实现节能目标发挥重要的作用。

Experiences in Europe and other areas have demonstrated that EEAs could play extremely important roles in energy saving and environmental protection. Properly designed, it can also play a key role in reaching energy saving targets for Chinese governments and enterprises.