



方圆标志认证集团
CHINA QUALITY MARK CERTIFICATION GROUP



IQNet (国际认证联盟) 正式成员



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IECEX 体系认证机构 (ExCB)

Energy Efficiency Investment Projects in China

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EE regulation/policy profile

1980s

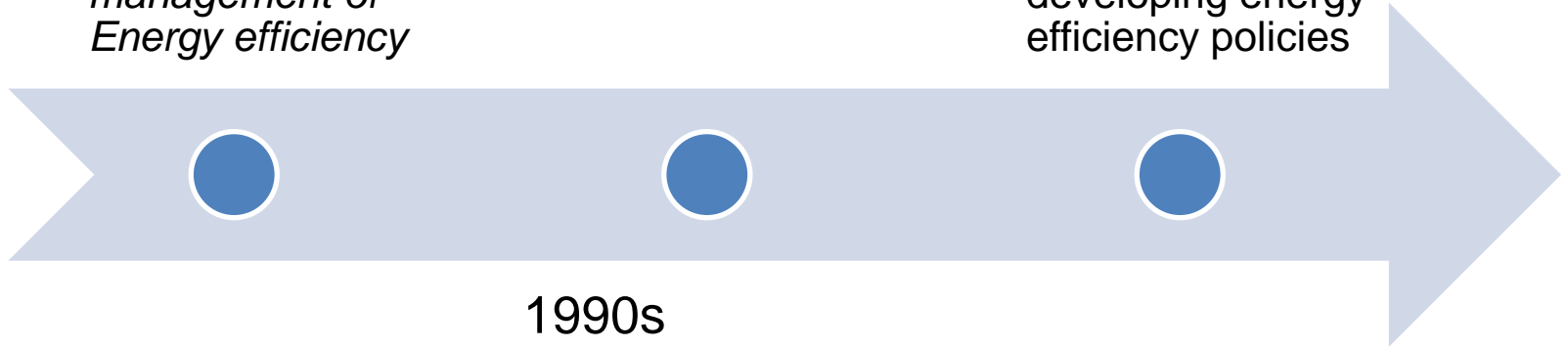
- Energy shortage
- The year 1986, *Provisional Regulation on the management of Energy efficiency*

2000s

- Continuous increase of energy consumption
- A dense period of developing energy efficiency policies

1990s

- The year 1997, *Law of the People's Republic of China on Energy Conservation*





Key regulations/policies

Responsibility Assignment for Achieving EE Goals.

Financial Funds Incentive for Designated EE Projects/Products.

Governmental Compulsory Purchase of EE Products.

Preferable Tax Policy for EE projects.

Top 1000/10000 Enterprises Energy Conservation Action Plan.

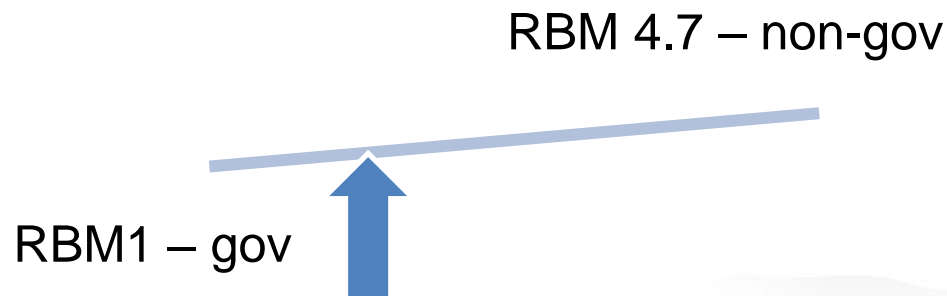
Regulation/policy is the KEY for enhancing and leveraging EE investment



EE investments during the 11th Five Year

Due to the implementation of EE regulations and policies, China directly invested **RMB 846.625 billion**(about **US\$140 billion**)(both government and non-government) for energy conservation and efficiency.

- RMB 149.697 billion by government
- RMB 696.928 billion by non-government.
- 17.68%+**82.32%** =100%





EE investments during the 11th Five Year

Among RMB 149.697 billion by government

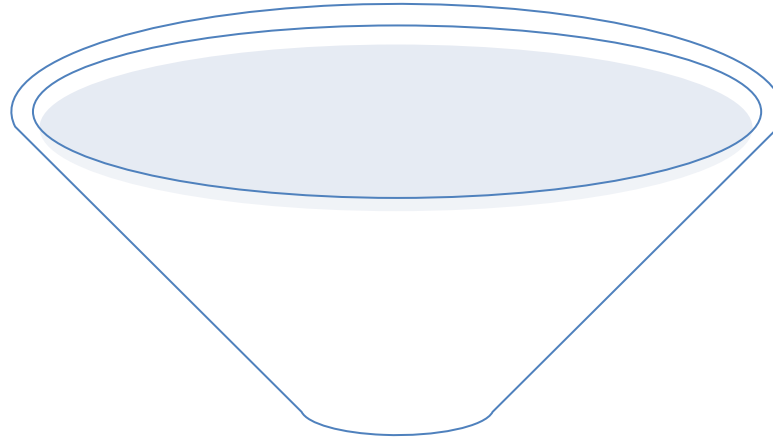
- Central government: RMB101.653 billion
- Local government: RMB 48.044 billion
- About 2:1

Among RMB 696.928 billion by non-government

- Bank: RMB 488.425 billion
- Energy-using enterprises : RMB169 billion
- Energy conservation service industry: RBM 20.52 billion
- International agency: RMB 17.983 billion
- Others: RMB 1 billion



EE investments during the 11th Five Year

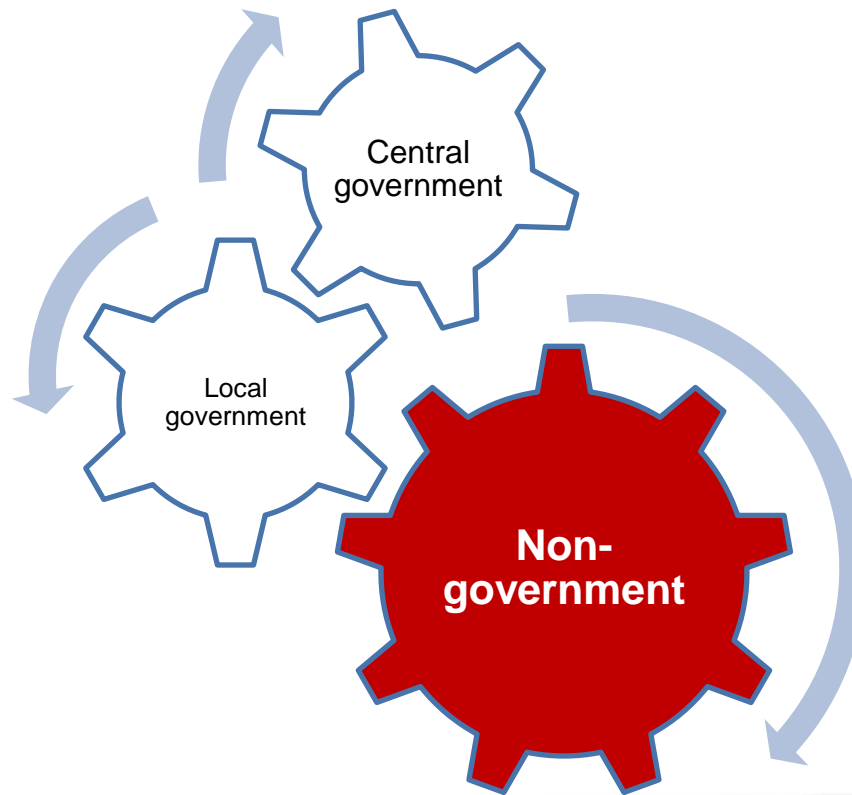


How much of the total RMB 846.625 billion goes to INDUSTRY?

- **RMB 648.722 billion**
- Accounting for **80.7%**

EE investments during the 11th Five Year

- Among RMB 648.772 billion for INDUSTRY



$$8.1\% + 4.4\% + 87.5\% = 100\%$$



Financial incentives for EE projects in China

- Financial incentive for EE renovation projects implemented by **ENRRGY-USERS**;
- Financial Incentive for EE projects implemented by **ESCOs**;
- EE projects loaned by **BANKs**.



Case 1: Financial incentive for EE projects implemented by energy users

- ❑ Targets and subsidy criteria;
- ❑ Application procedure for financial incentive;
- ❑ subsidy quota;
- ❑ Energy savings M&V procedure and requirements.



Case 1: Financial incentive for EE projects implemented by energy users

□ Targets and subsidy criteria

Targets	EE projects for existed facilities, equipments and processes.
Subsidy criteria	
Energy savings	More than 5000tce per year
Comprehensive energy consumption	Consumed more than 20000tce per year before EE project implemented.
Operational period	The renovated equipments, facilities and processes have been operated more than 3 years.
EE projects types	Boilers (Furnaces) renovation projects, Utilization of wasted heat and pressure, Energy conservation of motor system, Substitute oil projects, Energy system optimization projects.



Case 1: Financial incentive for EE projects implemented by energy users

- Application procedure for financial incentive

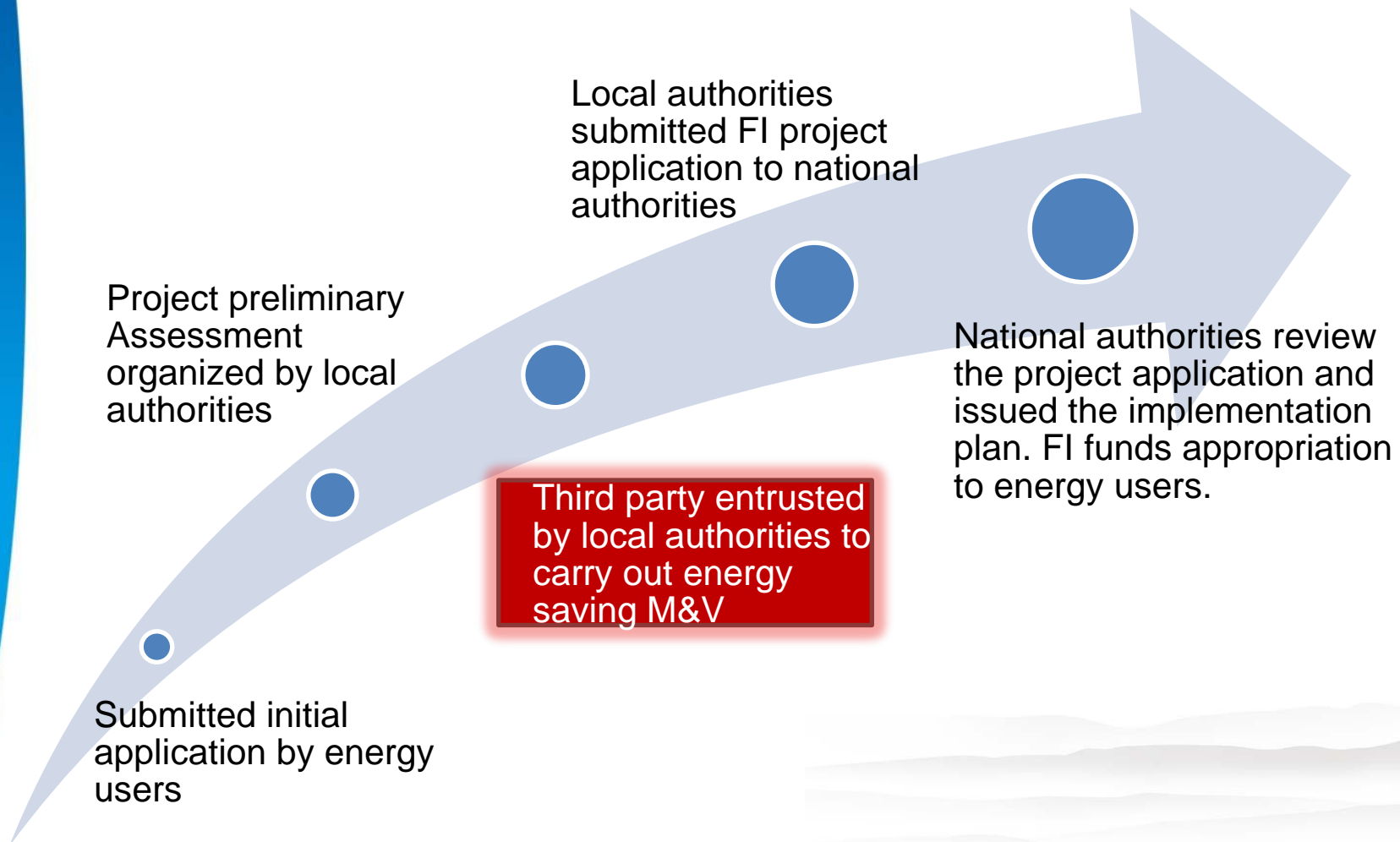
Phase 1: Initial Application

Phase 2: Final/Claim Application



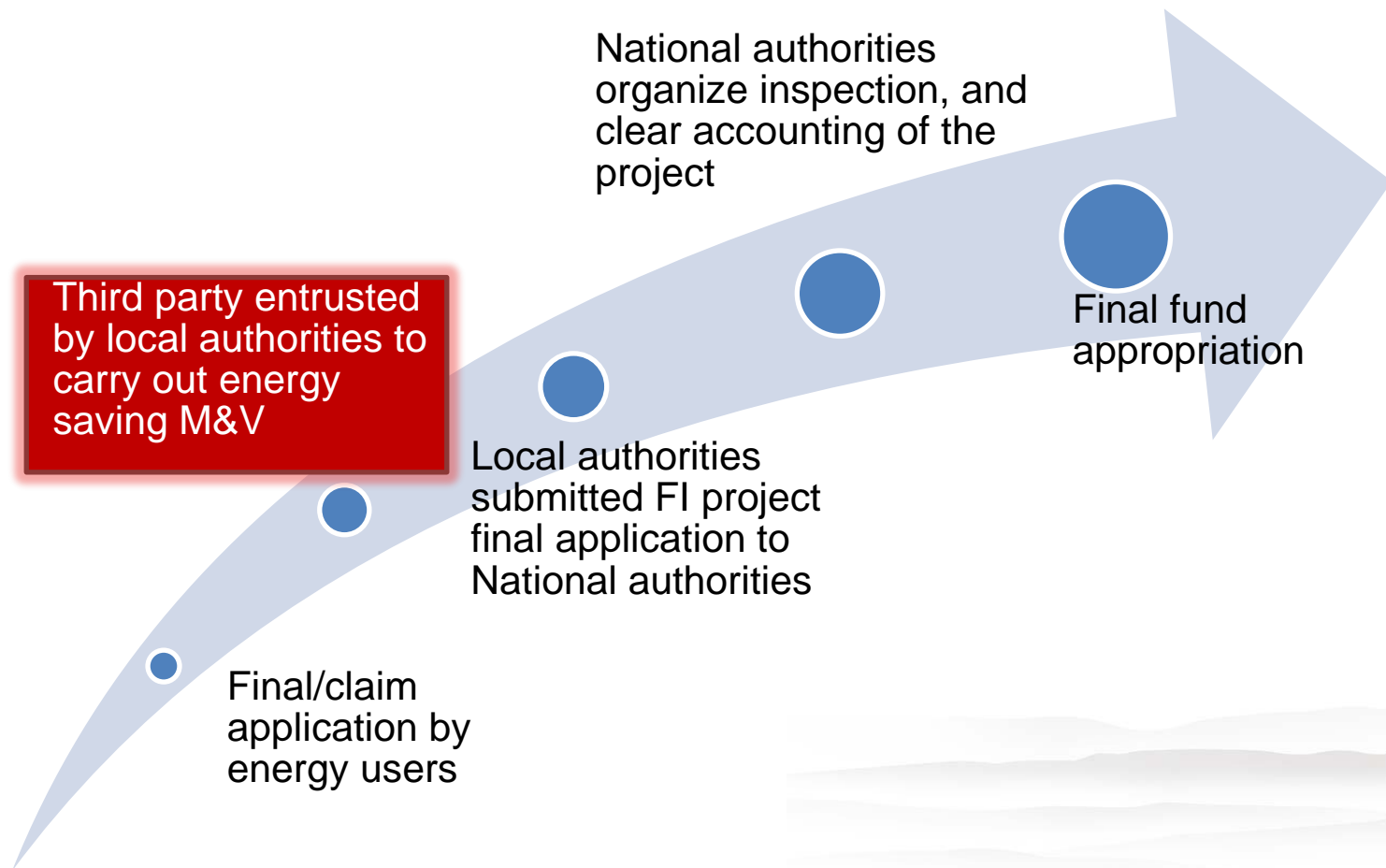
Case 1: Financial incentive for EE projects implemented by energy users

- Application procedure for financial Incentive -- Phase 1



Case 1: Financial incentive for EE projects implemented by energy users

- Application procedure for financial incentive -- Phase 2





Case 1: Financial incentives for EE projects implemented by energy users

□ subsidy quota

- According to the economic development, set different subsidy quota for eastern, middle and western regions;
- Financed according to the energy savings per year after the project implementation;
- **RMB 240/tce (about US\$40)** for EE projects in eastern regions, and **RMB 300 (US\$50)/tce** for EE projects in Middle and Western regions.



Case 1: Financial incentive for EE projects implemented by energy users

- Energy savings M&V procedure and requirements
-- Two steps audit

Phase 1: Project Initial Application

Evaluation of Compliance:

Evaluate if the EE project is in compliance with the award criteria.

Expected Energy Savings Evaluation:

According to the production information before the EE project implementation and the adopted energy renovation measures, evaluate the expected energy savings of EE project.

Phase 2: Project Final/Claim Application

Actual Energy Savings Evaluation:

Evaluate the actual energy savings according to the energy consumption of before and after project implementation.

The third Party entrusted by local authorities to carry out energy savings M&V --- CQM is one of the third parties.



Case 2: Financial incentive for EE projects implemented by ESCOs

- ❑ Targets and subsidy criteria;
- ❑ Application procedure for financial incentive;
- ❑ Subsidy quota;
- ❑ Energy savings M&V procedure and requirements.



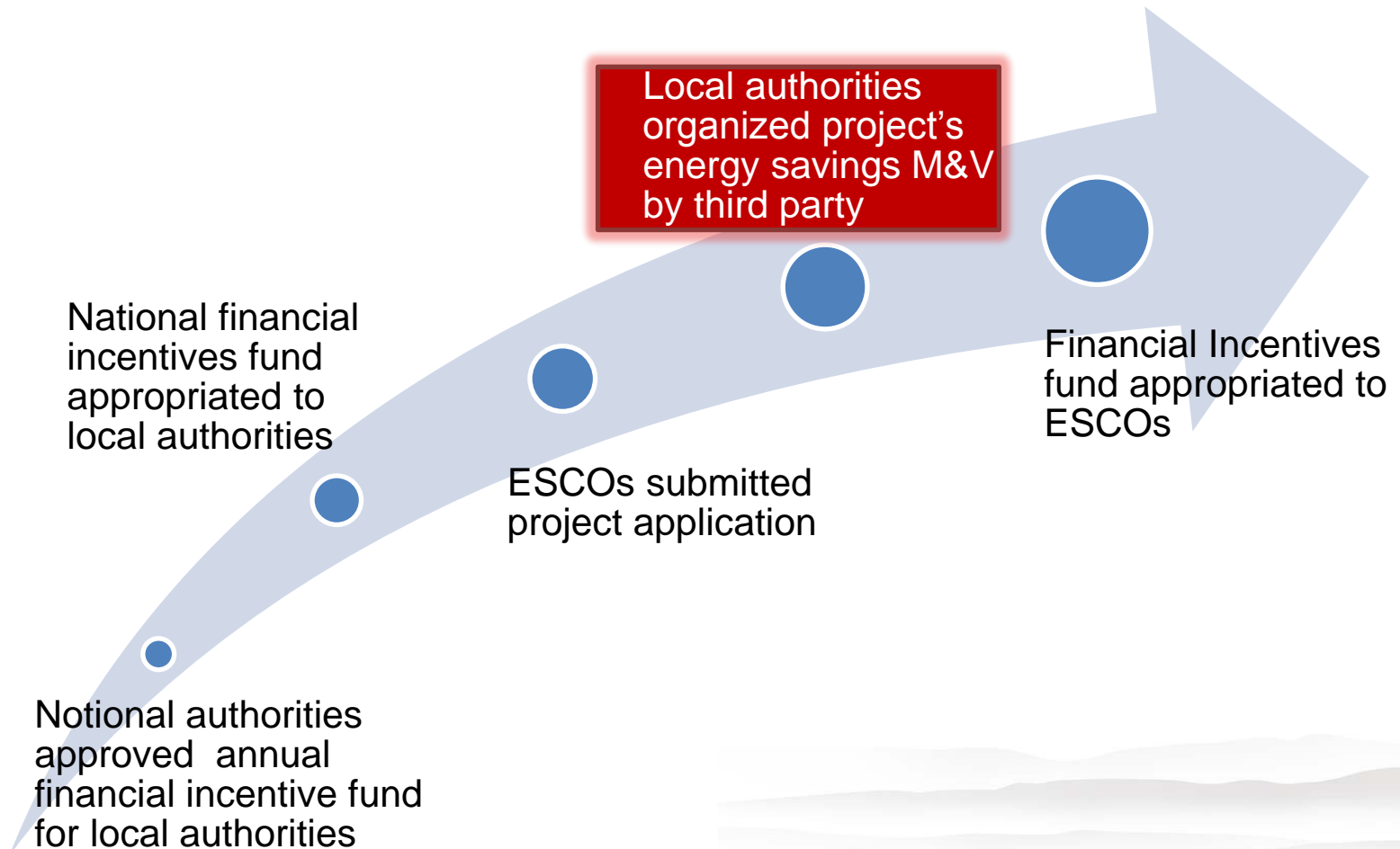
Case 2: Financial incentive for EE projects implemented by ESCOs

□ Targets and subsidy criteria

Targets	The ESCOs who implemented the EE projects in energy saving benefit sharing mode.
Subsidy Criteria	
Energy saving benefit sharing mode	ESCOs Invested more than 70% of the whole investment, and energy savings benefit sharing mode has been defined in the agreement.
Energy Savings	Annual energy savings (Expected energy savings) is lower than 10000tce and larger than 100tce (including) , larger than 500tce (including) for industrial project.
Operational period	The renovated equipments, facilities and processes have been operated more than 2 years .
EE project types	EE project implementation in the Contract Service Mode in the industrial, buildings and traffic sectors, and the public sector.

Case 2: Financial incentive for EE projects implemented by ESCOs

□ Application procedure for Financial incentives





Case 2: Financial incentive for EE projects implemented by ESCOs

- Subsidy quota
- Financial incentives fund are supported by national and local authorities together. Among the funds, **RMB 240/tce** from national incentive fund, and no less than **RBM 60/tce** from provincial incentive fund.



Case 2: Financial incentive for EE projects implemented by ESCOs

- ❑ Energy savings M&V procedure and requirements

Compliance Evaluation:

Evaluate whether the EE project is in compliance with the award criteria or not.

Energy Savings Evaluation:

Evaluate the expected energy savings of the project implementation according to the production information before the EE project implementation and the adopted energy renovation measures, evaluate the expected energy savings of EE project.

The third Party entrusted by local authorities to carry out energy savings M&V --- CQM is one of the third parties.



Comparison of the two types of financial incentives

	EE projects implemented by energy users	EE projects implemented by energy users by ESCOs
Subsidy criteria		
1) Energy Savings	Above 5000 tce	More than 100tce(including) and less than 10000tce (more than 500tce for industrial projects)
2) Comprehensive energy consumption	More than 20000tce	No requirements
3) Operational periods	The renovated equipments, facilities and processes have been operated over 3 years	The renovated equipments, facilities and processes have been operated over 2 years
4) Project types	Mostly are industrial projects	Industrial, buildings, transportation and public sector
Subsidy quota	Eastern region RMB240 /tce, Middle and Western regions RMB300/tce	National FI fund RMB240/tce, Local FI fund no less than RMB60/tce
Energy savings M&V	Third party energy saving M&V	Third party energy saving M&V



Case 3: EE Projects loaned by banks

Supported and sponsored by the
NRDC/WB/GEF: China Energy
Efficiency Financing Project.

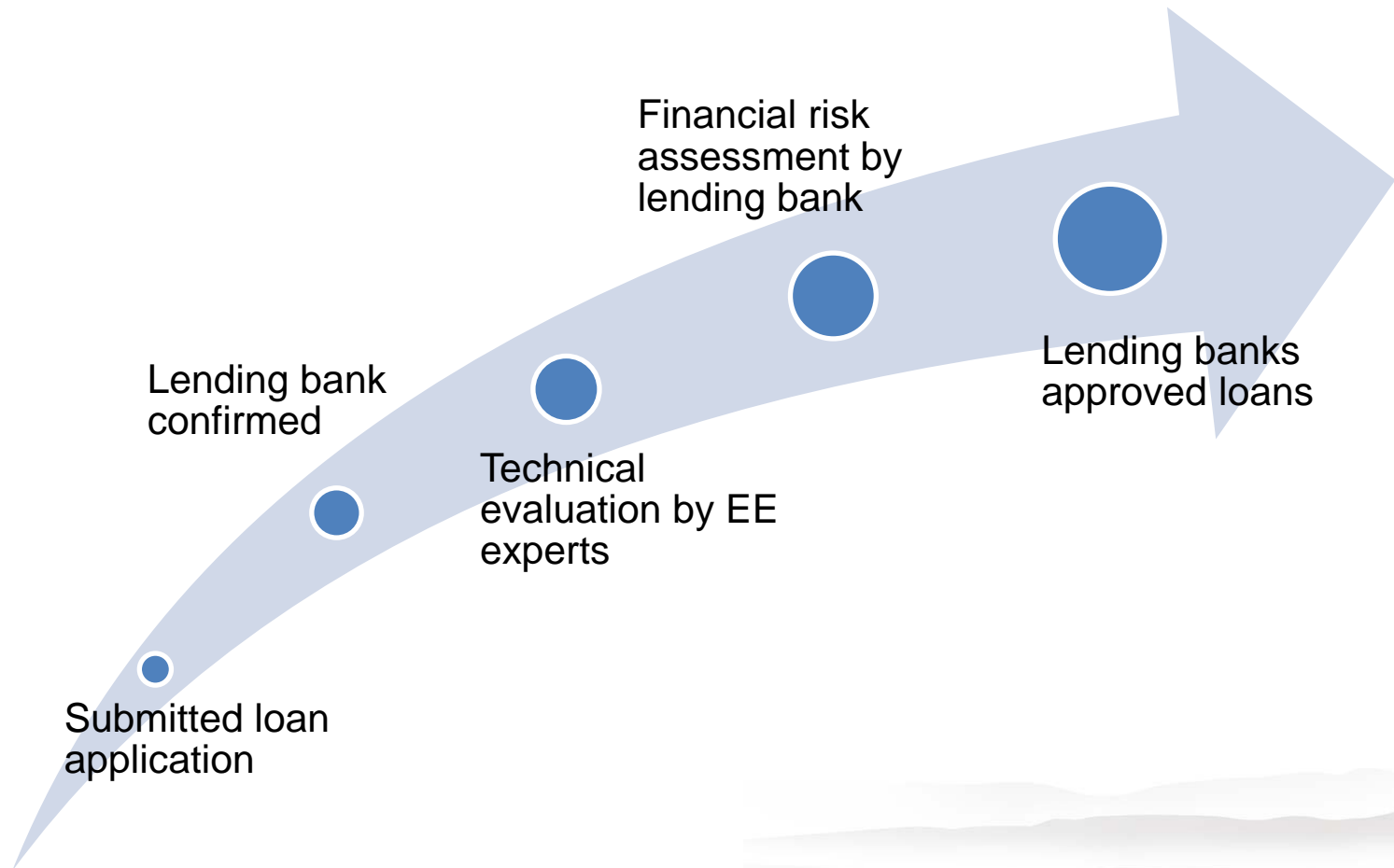


Case 3: EE Projects loaned by banks

- Lending banks:
 - Export-Import Bank of China;
 - Huaxia Bank;
 - China Minsheng Bank.
- Borrowers:
 - Energy intensive enterprises implemented EE projects;
 - ESCOs implemented EE projects in contract service mode.

Case 3: EE Projects loaned by banks

□ Application procedure

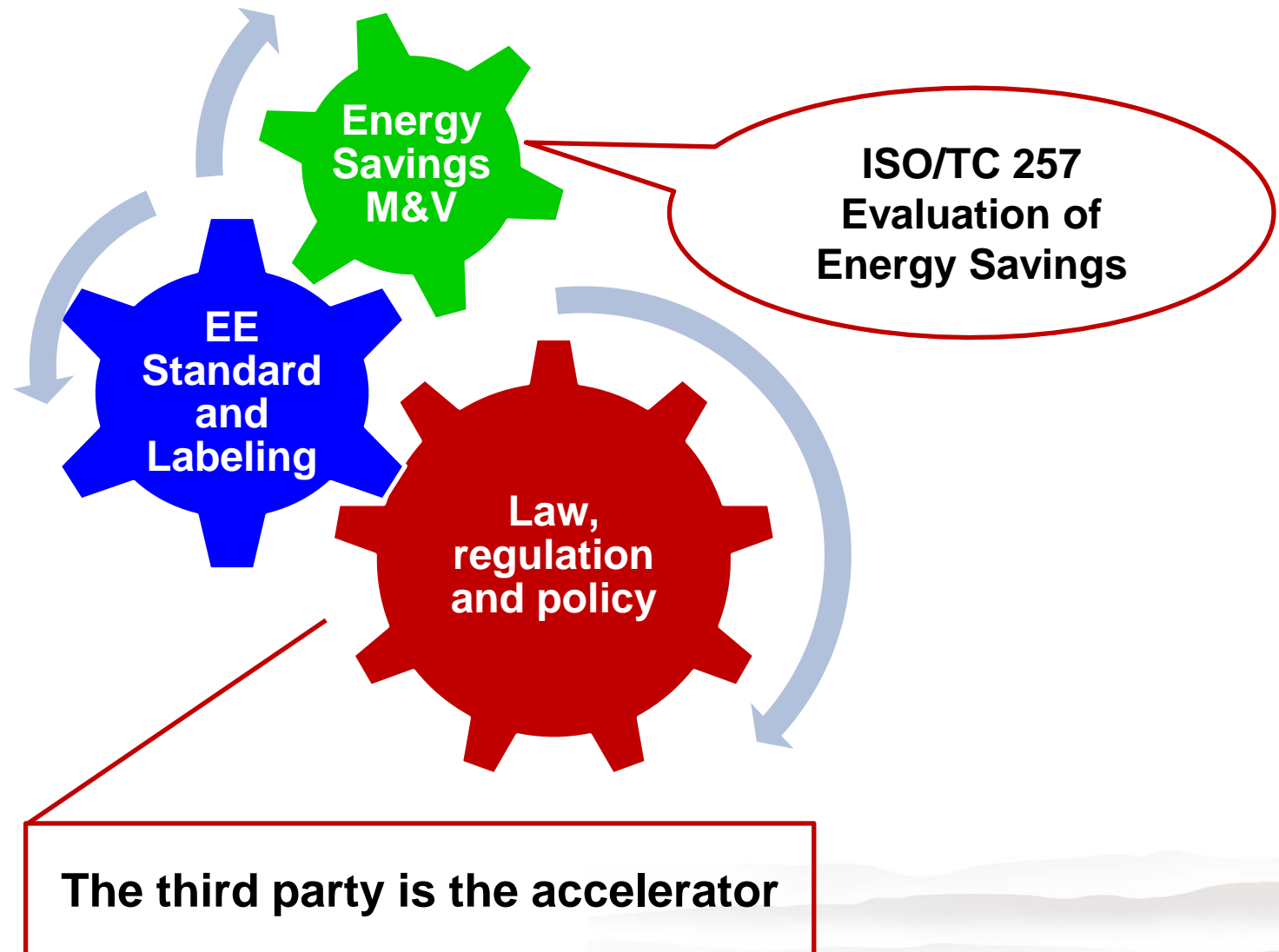




Case 3: EE Projects loaned by banks

- Technical evaluation:
 - Project owners profile;
 - EE project description;
 - ESCO introduction;
 - Energy savings MC&V.
- Evaluation propose
 - Technical feasibility of EE project;
 - Rationality of energy savings MC&V.

CONCLUSION: KEY DRIVERS FOR EE INVESTMENT





ONE MORE UPDATE INFORMATION

UNDP/GEF: BRESL PROJECT



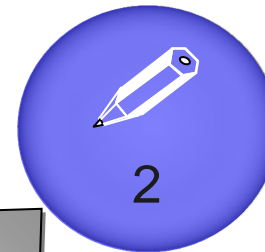
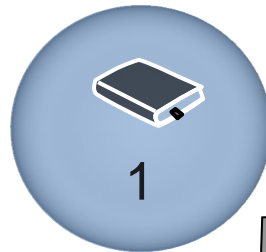
- ❑ BRSEL is funded by GEF with the total amount of US\$ 7.8 Million.
- ❑ Project started in February 2009 and the project duration is 5 years.
- ❑ The participating countries include Bangladesh, China, Indonesia, Pakistan, Thailand and Vietnam.
- ❑ Promote regional EE cooperation, harmonization and mutual-recognition by capacity building and technical support.
- ❑ China takes a lead to develop the next 5 years regional EE project with about US\$ 10 million GEF grant.

ONE MORE UPDATE INFORMATION

The Regional Energy Efficiency Standard and Labelling Network (REESLN) is in the process to be established for facilitating and enhancing regional cooperation and harmonization of EES&L.

Information Sharing:

- Information;
- Policy , project and program;
- products, tool-package.

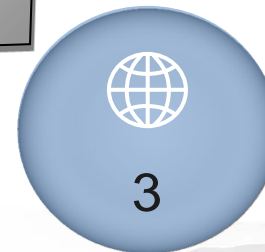


Technical Assistance:

- Provision of technical support materials;
- Sharing of experts;
- Assistance to countries in developing the EES&L programs.

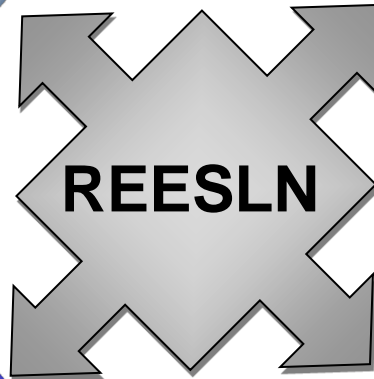
Trainings:

- Design, coordination and conduct of specialized training courses on request;
- Host regular training, training-trainer program;
- Accreditation training for professional.



Harmonization Initiatives:

- Sharing of experiences and enhancing cooperation;
- Facilitate regional harmonization.





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Thanks

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