



Research on NEV Credits and Trade System

Liu Bin

Auto Industry Policy Research Section
China Automotive Technology & Research Center

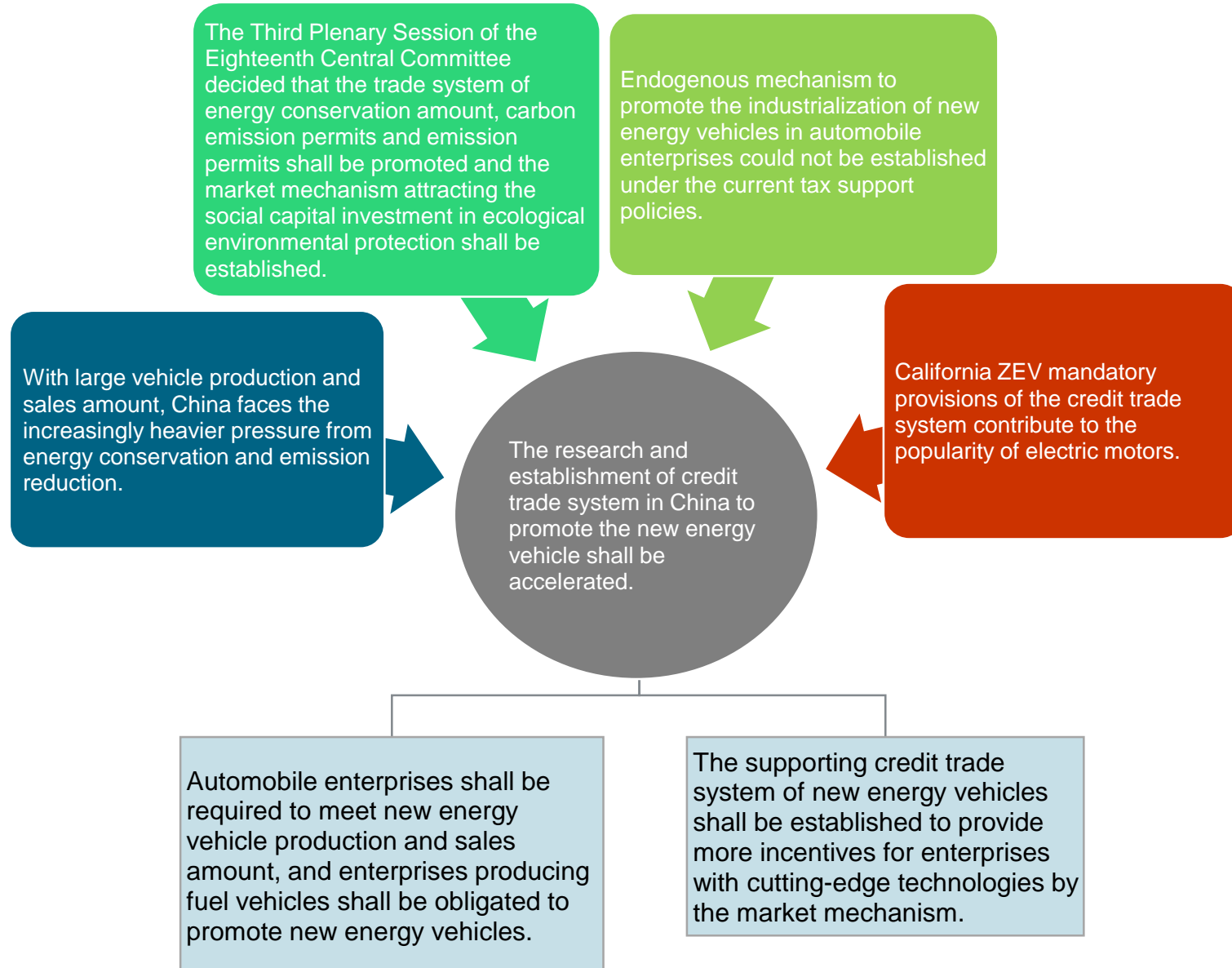
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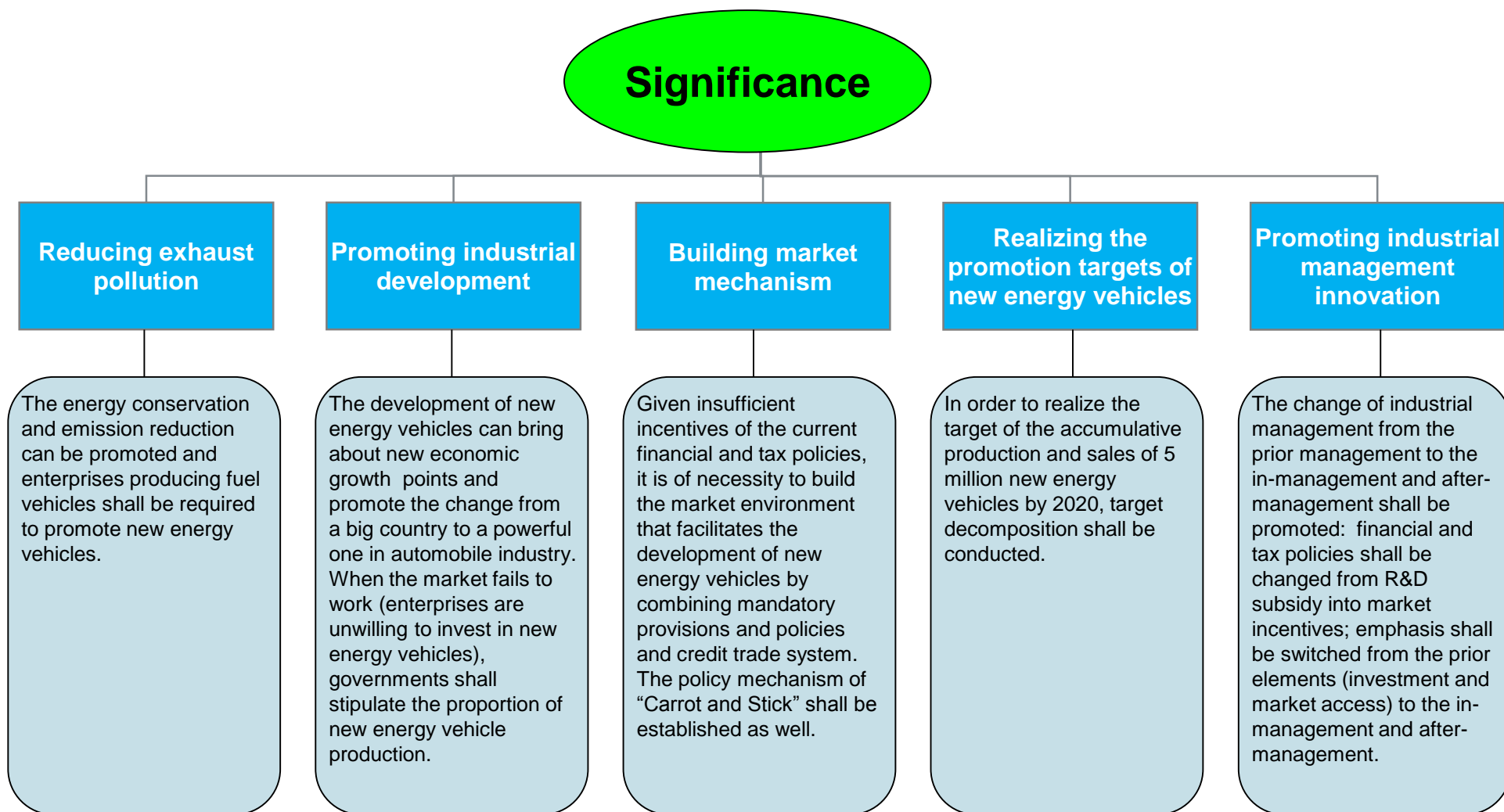
I. Research Background and Purposes



I. Research Background and Purposes



According to California's experience, the mandatory market mechanism that requires enterprises to promote new energy vehicles and implements the credit trade system of new energy vehicles shall be established, which is of great significance for the accelerating industrialization of new energy vehicles in automobile enterprises.



II. Profile of California ZEV Regulation

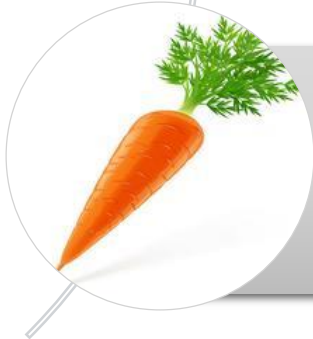


**California Zero Emission
Vehicle Regulation**



**Mandatory
Proportion of
ZEV Sales**

The government stipulates the mandatory proportion of ZEV sales and requires enterprises with automobile sales in California reaching the scale to reach the credit target of zero emission vehicles.



**Allowable
ZEV Credit
Transfer**

In order to avoid the punishment from the government, automobile enterprises failing to meet the requirements can buy ZEV credits from other enterprises.



**To promote the popularity
of zero emission vehicles**

II. Implementation Effects of California ZEV Regulation



● *Rapid Development of ZEV*

Promoted by mandatory requirements and multiple policies, new energy vehicles have become popular in an accelerating way in California; California has become an important sales market for new energy vehicles where electric motor sales in 2013 accounted for 44% of that in America.

● *Promotion of Diversified Electric Motors*

California's stipulation about ZEV has become the strong impetus to the increasingly diversified electric motors; the risk of financial fines forces automobile enterprises to increase the plan of clean vehicles, which promotes the R&D and innovation of clean vehicles and provides more zero emission vehicles for California customers.

California's policy of "Carrot and Stick" is positive in many aspects

● *Development Soil and Compliance Flexibility for Manufacturers*

Provisions of ZEV, especially credit trade system, offer innovative enterprises good development soil and automobile enterprises the compliance flexibility without effects on the overall mandatory target of zero emission vehicles.

● *Development of Related Industries*

Construction of charging infrastructure and investment in electric motor sales and after-sales services harvest a rapid development due to the electric motor growth.



III. Viability of NEV Credit Management in China by Learning from California ZEV Regulation



BIG CONCERN

Development of new energy vehicles is a big concern of Party Central Committee and State of Council; the two surveys by Ma Kai; new energy vehicles are cultivated and developed more quickly as the strategic emerging;

the road China must follow by Xi Jinping.

OTHER'S EXPERIENCE

The international experience from California's ZEV Regulation provides us with important reference; the distinction between priorities and non-priorities, required percentages of ZEV, and ZEV score in the policy about California's ZEV Regulation makes the policy easier to be implemented.

IMPLEMENTATION VIABILITY

Promotion and application of new energy vehicles in China gradually form a complete policy system; strong and powerful coordination between sectors; industrial management mechanism provides a good basis for the implementation of NEV credit management.

INDUSTRIAL BASIS

The basis for industrialization of NEV in China provides the market for enterprises to fulfill credit targets; advantageous enterprises and newly-built NEV enterprises will provide sufficient credits for the market

IV. Basic Idea of Implementing NEV Credit Trades



General Idea

A feeding mechanism that the automobile industry itself supports NEV development shall be established.

NEV credit market shall be built to allow the credit trade between enterprises.

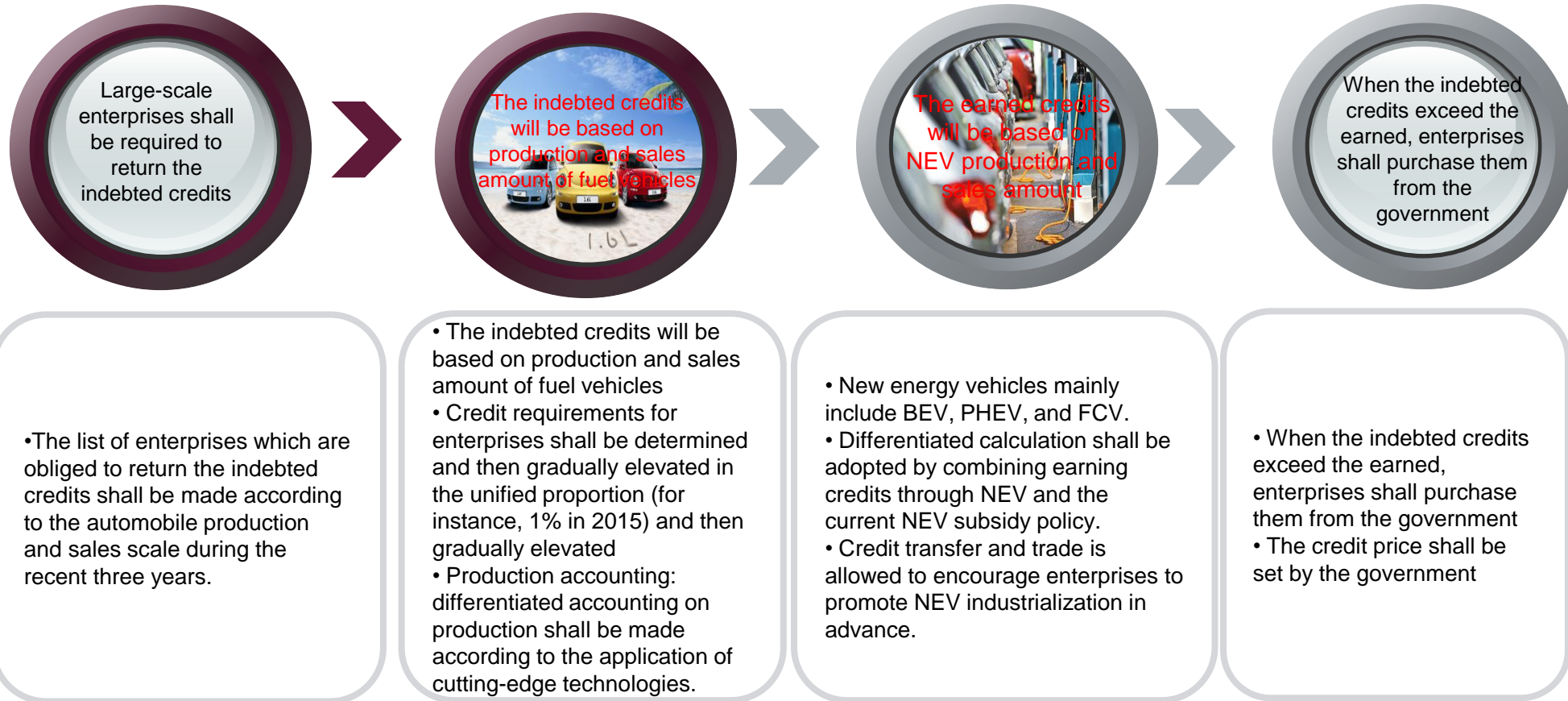
When manufacturing one fuel vehicle, enterprises will owe the government the fixed credits and thus have to return them by manufacturing NEV (or by purchasing credits from enterprises with surplus credits), or enterprises will be punished by the government.

The market incentives shall be adopted so that NEV promotion cost can be borne in part by the society and enterprises with cutting-edge technologies can be encouraged to launch a long-term investment in NEV. The credit price shall be set so that enterprises can decide whether they should R&D NEV or purchase the credits from other enterprises.

IV. Basic Idea of Implementing NEV Credit Trades



Implementing Steps of NEV Credit Management





V. How to Calculate Credits in Enterprises and the Industry

Take the enterprise as an example:

Whether automobile enterprises shall perform their obligations of returning the indebted credits based on the automobile production during the recent three years or the past 1 year, for instance, the production of above 100,000 fuel vehicles means the enterprise has to bear the credits at the proportion of 1%

Enterprise's annual production: 150,600
Including ordinary CEV of 100,000, vehicles with advanced energy-efficient technologies of 30,000, and HEV of 20,000
The production of this year can be calculated as follows:
 $100,000 + 30,000 * 0.5 + 20,000 * 0 = 115,000$
The indebted credits are: $115,000 * 1\% = 1150$

The earned credits of NEV can be calculated as follows:
PHEV: $500 * 1 = 500$
BEV: $100 * 4 = 400$
And $NEV = 500 + 400 = 900$

$$-1150 + 900 = -250$$

Previous credits can be carried forward

NEV credits can be bought from other enterprises

NEV credits can be bought from the government

V. How to Calculate Credits in Enterprises and the Industry

Take the passenger vehicle industry as an example:

The list of large-scale enterprises in the industry shall be made

Let's assume the total production of large-scale enterprises in the industry is 15,030,000 including vehicles with advanced energy-efficient technologies of 2,000,000 and HEV of 1,000,000. The effective production of this year is:
 $12,000,000 + 2,000,000 * 0.5 + 1,000,000 * 0 = 13,000,000$
The indebted credits are: $13,000,000 * 1\% = 130,000$

The earned credits of NEV can be calculated as follows:

PHEV: $10,000 * 1 = 10,000$

BEV: $20,000 * 4 = 80,000$

And NEV = $10,000 + 80,000 = 90,000$

$$-130000 + 90000 = -40000$$

Previous credits can be carried forward

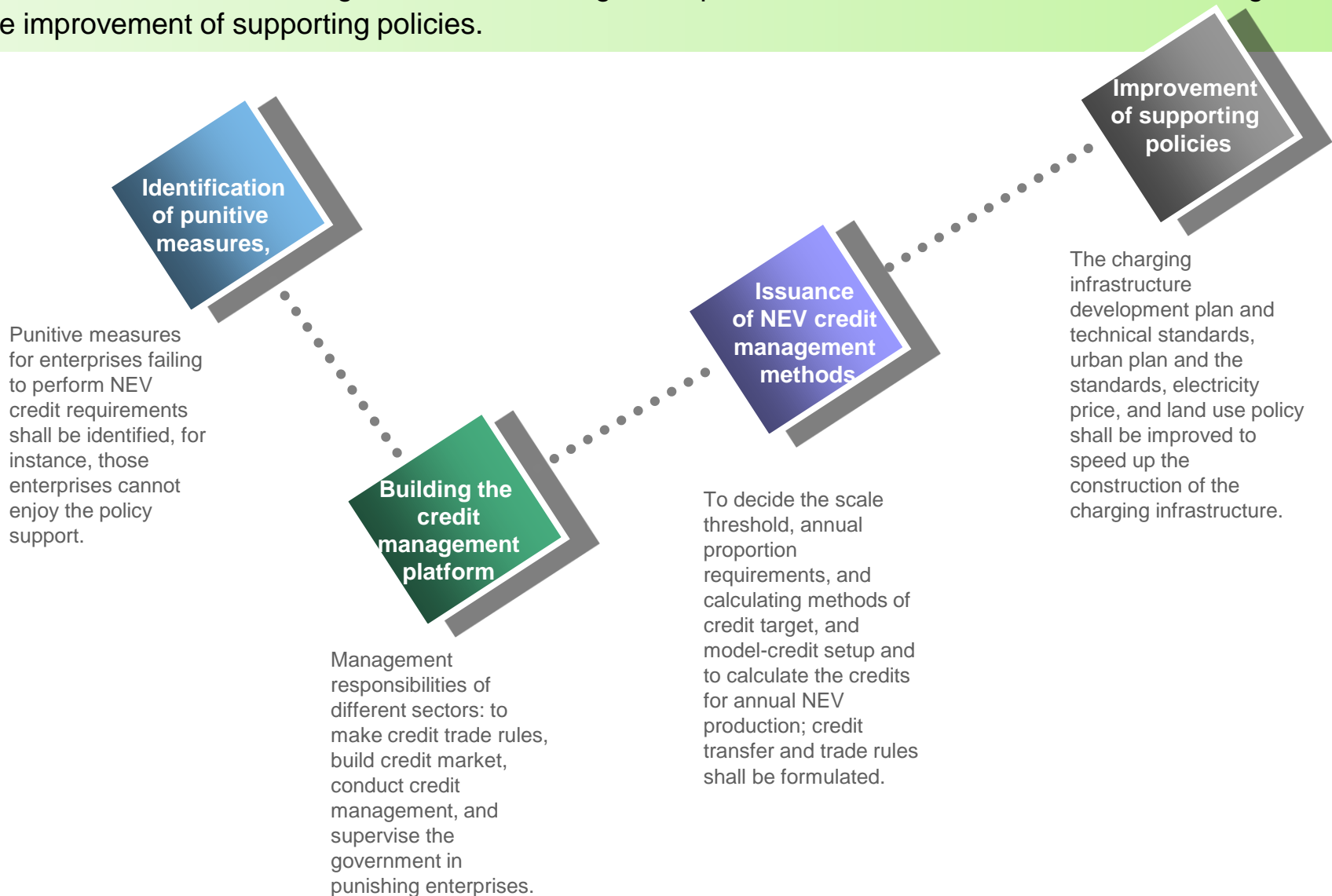
NEV credits can be bought from the government

Efforts shall be made to produce another 10,000 BEV

VI. Establishment of NEV Credit Management System



Establishment of NEV Credit Management System shall be implemented from the following four aspects: the identification of punitive measures, the building of the credit management platform, the issuance of NEV credit management methods, and the improvement of supporting policies.



Thanks!

LIU Bin

Auto Industry Policy Research Section

China Automotive Technology & Research Center

Tel:+86-22-84379390 13820500929

Fax:+86-22-84379387

E-mail: liubin@catarc.ac.cn newbring@163.com