



Clean Transportation Program Brief

June 23, 2017

Corporate Average Fuel Consumption and New Energy Vehicles Credits Joint Management Method Draft II (for public consultation)

This second draft regulation proposed by the Ministry of Industry and Information Technology (MIIT) and released by the Law Department of the State Council takes into account comments provided since its September 2016 release¹, including its WTO consultation.² Additional comments will be submitted on June 27 and incorporated into a subsequent draft. A coalition of researchers and NGOs have been advocating for the decoupling of New Energy Vehicle (NEV) credits from the Corporate Average Fuel Consumption (CAFC) regulation because (i) the two regulations promote different technological developments – CAFC is meant to pursue energy saving technologies (ESVs) in internal combustion engine (ICE) vehicles while NEV is meant to spur NEV development, (ii) MIIT arguably has limited management capacity over the existing CAFC regulation and can better implement (and evaluate the effectiveness of) the policies as separate entities, and (iii) the likely offsetting of CAFC ICE vehicle efficiency technology targets by low quality NEVs manufacturing if an NEV-CAFC joint regulatory mechanism is adopted. Given the likelihood of implementation in the near future (probably early 2018), this brief is aimed at highlighting major features of the new Chinese standard management draft (hereafter referred to as “CN new draft”), point at major revisions made from the previous version, and suggest some areas for improvement. *For those less familiar with China’s CAFC regime, please refer to the glossary of terms at the end of this brief.*

The Draft Regulation in a Nutshell

- **Implementation scope:** national.
- **Core stated goals:** to advance vehicle energy efficiency and new energy technologies³, establish long-term vehicle efficiency and new-energy development mechanisms, promote healthy development of the auto industry, ease environmental pressures, and perform as an implementation strategy of “The People’s Republic of China Energy Conservation Law.”⁴

[Chinese Draft: Cluster 1]

¹<http://www.miit.gov.cn/n1146285/n1146352/n3054355/n3057585/n3057592/c5259691/content.html?from=groupmessage&isappinstalled=0>

² http://car.cnautonews.com/xnyqc/201612/t20161212_510507.htm

³ New Energy Vehicles (NEVs), the equivalent of the US’s ZEV, include battery electric vehicles (BEVs), Plug in Hybrids Electric Vehicles (PHEVs) and Fuel Cell Vehicles (FCVs)

⁴ http://www.zhb.gov.cn/gzfw_13107/zcfg/fg/xzfg/201610/t20161008_365106.shtml

- **Management principles:** The average fuel consumption of passenger cars in the People's Republic of China and the management of new energy vehicles shall be governed by the measures specified in the draft. CAFC and NEV credits will be calculated independently. Corporate CAFC and NEV credits performance will also be separately evaluated, yet CAFC can be offset by NEV credits.
[Chinese Draft: Cluster 2]
- **Regulating entities:** MIIT, Ministry of Finance (MOF), Ministry of Commerce (MOFCOM), and General Administration of Customs, the State Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) would jointly enforce the “average fuel consumption of passenger cars and new energy vehicle integral management.” The first two will oversee enforcement by domestic manufacturers, while the latter two will support documentation submission of importers to the former two.
[Chinese Draft: Cluster 3, 13, 14]
- **Regulated vehicles:** The term "passenger car" as used in the present Measures means the vehicle of curb weight not exceeding 3500 kg as specified in paragraphs 2.1.1.1 to 2.1.1.10 of the terms and definitions of the type and definition of the type of car and trailer (GB/T 3730.1)⁵. The term New Energy Vehicles (NEVs), the equivalent of the US's ZEV, includes battery electric vehicles (BEVs), Plug in Hybrids Electric Vehicles (PHEVs) and Fuel Cell Vehicles (FCVs).
[Chinese Draft: Cluster 4]
- **Regulating threshold:** All domestic vehicle manufacturers and vehicle importers, with ICE (excluding NEVs) vehicle volume exceeding 50k are required to comply with the NEV credits requirement according to their manufacturing or importation volume of the same year; all manufacturers need to comply with the CAFC regulation and can use the NEV flexibility mechanism in implementation.
[Chinese Draft: Cluster 5, 19 and 24]
- **Reporting:** The Ministry of Industry and Information Technology (MIIT) will establish vehicle fuel consumption and new energy vehicle integrated information management platform, including the summary and publication of fuel consumption and new energy vehicle related information; Automakers and importers shall promptly report their vehicle production and importation volumes as well as vehicle FC to MIIT – as listed in Appendix I of the draft.⁶ The reporting will include by-vehicle calculations performed by automakers themselves (rather than what?).
[Chinese Draft: Cluster 6 and 7]
- **CAFC credits calculation method (ESV and NEV super credits):** According to the gap between the actual annual FC and the targeted annual FC and volume that the corporate vehicles produced or imported (as detailed in GB 27999⁷), equal with FC gap × Vehicle volume. The calculation results are two decimal places, and relies on by-model FC. Average corporate fuel consumption calculation is based

⁵ <http://www.cataarc.org.cn/ShowSearch.aspx?ID=1288>

⁶ <http://zqyj.chinalaw.gov.cn/draftDetail?listType=2&DraftID=1894&1497592757400>

⁷ <http://www.chinaev.org/uploads/hhl/GB27999-2011.pdf>

on combined passenger vehicle fuel consumption which is verified according to the "light vehicle fuel consumption test method" (GB / T 19233⁸).

[Chinese Draft: Cluster 8, 9, 10, 11, 12]

- **Special CAFC provisions for small manufacturers:** small manufacturers (with manufacturing or an importation volume of below 2,000 for the calculation year) are given a looser requirement: the loose requirements are calculated according to CAFC performance improvement between the calculation year and the previous year. Between 2016 and 2020 looser requirements of 60% can be gained by small enterprises that have improved their CAFC by 6% or more from previous year, while those achieving an improvement of 3% can gain a 30% looser requirement.

[Chinese Draft: Cluster 15, 16]

- **NEV credits calculation method:**

- All companies with production or importation exceeding 50k vehicles must meet the NEV credit requirement.
- Credits stock is based on the gap between actual and required volume of NEVs credit produced (credits should be rounded).
- Production and importation rather than sales are still the basis of NEV credits calculation.
- NEV credits calculation are based on both e-mileage and energy consumption test-based result, with some references (notes under the below table).
- The 2018, 2019, and 2020 NEV credits target is 8%, 10%, and 12% of total production/importation volume.

[Chinese Draft: Clusters 17-23]

Table 1: Credits calculation

Passenger vehicle type	Credits calculation requirement	Comments
BEV	$0.012 \times R + 0.8$	(1) R is calculated according to the joint (urban and suburban) driving cycle (measured by km). (2) The upper credits limit is 5 points. (3) Credits calculation results are rounded to retain two decimal points.
PHEV (REEV included)	2	
FCV	4, 5	

Technological benchmark:

(1) BEVs: The requirement is of 30 minutes' maximum drive speed of not less than 100km/h, and pure electric mode driving range of not less than 100 km.

⁸ <http://chinaafc.miit.gov.cn/n2257/n2340/index.html>

(2) The credits enabled depend on the relationships between energy consumption and the vehicle curb weight (m) in the following manner: For Y1, if $m \leq 1000\text{kg}$, $Y1 \leq 0.014 \times m + 0.5$; if $1000 < m \leq 1600\text{kg}$, $Y1 \leq 0.012 \times m + 2.5$; if $m > 1600\text{kg}$, $Y1 \leq 0.005 \times m + 13.7$. For Y2, if $m \leq 1000\text{kg}$, $Y2 \leq 0.0098 \times m + 0.35$; if $1000 < m \leq 1600\text{kg}$, $Y2 \leq 0.0084 \times m + 1.75$; if $m > 1600\text{kg}$, $Y2 \leq 0.0035 \times m + 9.59$. Of which, Y stands for energy consumption and M stands for the curb weight of BEVs.

(3) PHEVs: minimal driving range for credits eligibility is 50 km;

PHEVs: when minimal range is 80 km or less, then the energy consumption (GB 19578) should be less than 70% of the standard limit. Otherwise credits will be reduced to 50% of the formula.

Credits from PHEVs of more than 80 e-range but with lower energy consumption than the standard limit cannot be exchanged.

(4) FCVs: The requirement is for fuel cell system rated power to have not less than 30% of the rated power of the drive motor, and not less than 30kW. Failure to meet this requirement enables only 50% the credits and disables credits exchange (own use only).

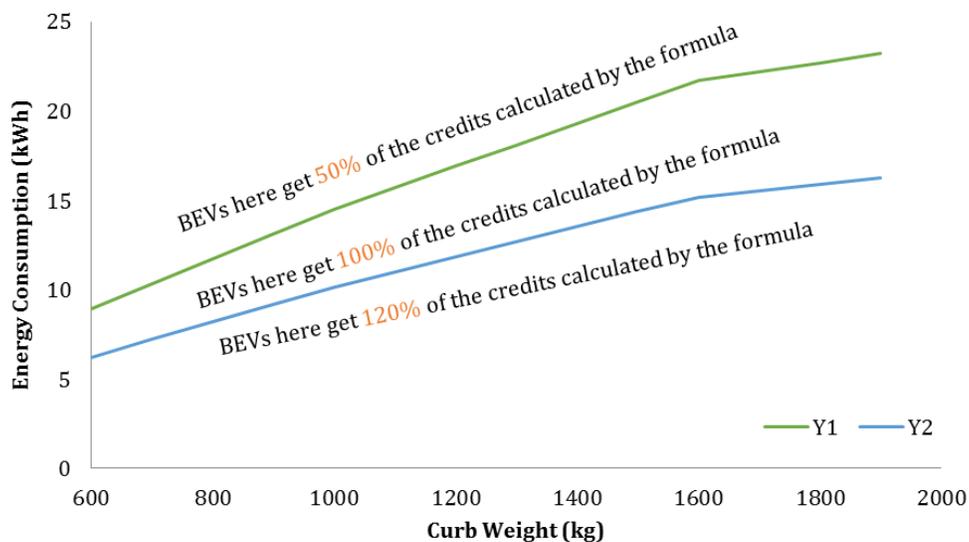


Figure 1: NEV credits obtained for BEV model by energy consumption (kWh; in policy notes: 'y') and curb weight (kg; in policy notes: 'm')

▪ **Reporting:**

- By December 20, companies are required to report their projected corporate CAFC and NEV credits estimations for the coming calendar year to MIIT.
- By March 1, the actual corporate CAFC and NEV credits should be reported to MIIT (as detailed in Appendix III of the draft⁹).

⁹ <http://zqyj.chinalaw.gov.cn/draftDetail?listType=2&DraftID=1894&1497592757400>



- MIIT will publically release both CAFC and NEV credits figures on its dedicated platform on April 10. If revisions are required, they should be reported within 20 days from the date of original figures release, and MIIT will require 20 days before it will respond to any suggested revisions.

- By June, MIIT will release the figures after ensuring the accuracy of the data (no specific procedures are provided).

[Chinese Draft: Clusters 25-28]

- **CAFC credits management (ESV and NEV super credits):** Negative CAFC credits can be compensated for by CAFC credits in two ways: CAFC credits accumulated by the company (produced up to three years ago), NEV-credits transferred from another company that has 25% shares in the receiving company yet credits cannot be transferred again and must be used within the current year.

[Chinese Draft: Clusters 29-37]

- **NEV credits management:** NEV credits can be traded freely, but cannot be banked and must be used within the same year.

[Chinese Draft: Clusters 29-37]

- **NEV credits and CAFC credits linkage:** Only NEV credits could be transformed to CAFC credits using a ratio of 1:1 and used in the same year, and not transferred more than once.

- **Supervision and penalties:** MIIT will supervise the CAFC and NEV credits and determine the entities that will manage compliance, which will employ a black list method for encouraging compliance. Companies that do not meet their CAFC credits and/or NEV credits requirement, or fail to report accurately and in accordance to the specified requirements and calculations, the following will occur:

- Companies will be required to halt vehicle production or importation.

- A public notice will be issued (“shaming” approach).

- Next year’s requirement will not be lower than the previous (unmet) requirement year credits volume.

[Chinese Draft: Clusters 38-44]

The full release:

<http://www.chinalaw.gov.cn/article/cazjgg/201706/20170600483234.shtml>

Major changes from the previous draft:

- ❖ **Regulating bodies participating:** On the one hand, the newer draft includes a more clear specification of regulating entities (Cluster 3, 13, and 14), while on the other, still only factionary enforcement tools included and no monetary tools are specified. **Overall a good advancement, yet still lacks detailed enforcement tools.**
- ❖ **CAFC calculation method:** In the previous version, companies had to calculate a series of model credits according to the higher actual FC score and the lowest FC target of a model series. In the new draft, they are requested to calculate each model according to its exact FC (both for target and actual CAFC calculations). **The new approach is enabling the production of more credits for the same vehicle fleet structure, yet complicates the calculation process to some extent.**
- ❖ **Special provisions for small manufacturers:** (1) In the previous draft, small manufacturers CAFC credits was based on *previous three years' average* of 2,000 cars (produced or imported). The new draft refers only to current year production or importation of 2,000 cars or below. **The new approach increases “maneuvering” opportunities for small manufacturers and importers.** (2) While in the previous draft, a 60% looser requirement was given to small manufacturers that achieved 8% CAFC performance improvement compared to the previous year and 30% to those achieving a gap of 6%, the new draft requirements were eased to just 6% and 3% respectively. **This special provisions comes in favor of mainly importers and independent manufacturers such as Renault, Ferrari, McLaren, ISUZU Auto, Hebei ZXAuto, Shanxi Victory Auto, etc.**
- ❖ **NEV credits calculation method:** (1) While previously NEV credits were only based on e-mileage, they are now also based on energy consumption test-based result. Furthermore, when not similar, the lower of the two will be the basis of the calculation. **This increases the NEV eligibility requirement and is anticipated to ensure that better quality NEVs are rewarded.** (2) The new credits calculation enables decimal points as it goes by a formula rather than steps – which overall gives more credits for manufacturers of BEVs exceeding 100 e-km and PHEVs exceeding 250 e-km.

Table 2: Credits comparison

	e-R=80	e-R=100	e-R=150	e-R=183	e-R=250	e-R=266	e-R=350	R≥50
BEV	1.76 (2)	2	2.6 (3)	3	3.8 (4)	4	5 (5)	/
PHEV	/	/	/	/	/	/	/	2
FCV	/	/	/	/	4 (4)	4 (4)	5 (5)	/

Note: Credits per range for the new draft versus the previous draft (previous draft numbers are in brackets); there are new eligibility provisions based on test results.

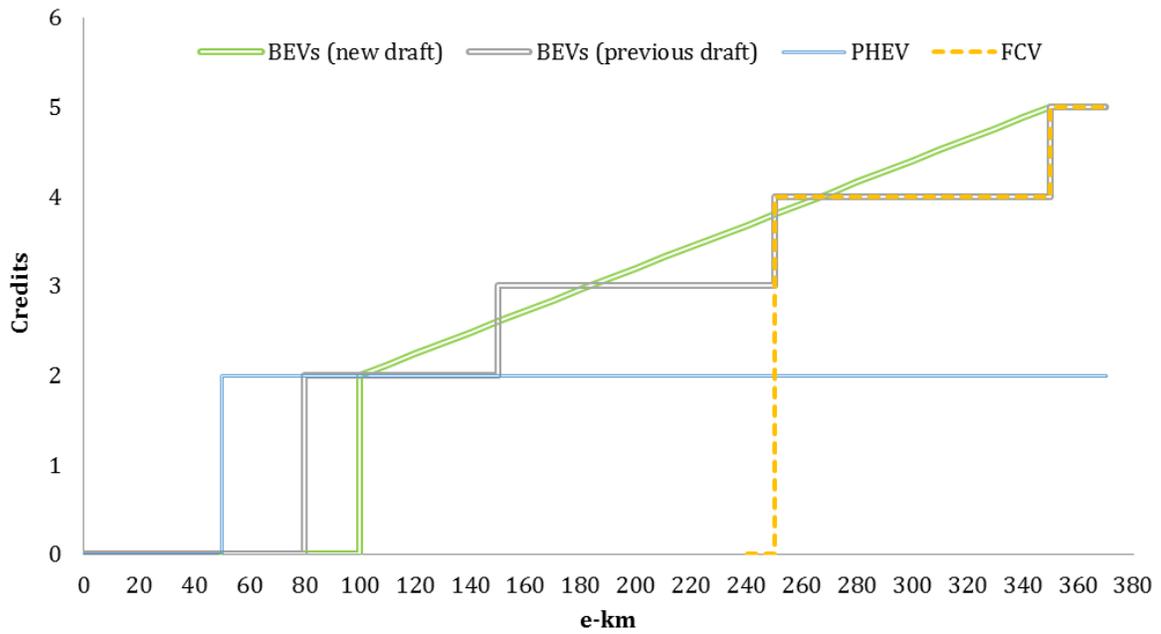


Figure 2: Comparison of NEV credits obtained for BEVs and PHEVs under the new and previous drafts

- ❖ **Reporting:** In previous version, MIIT was to publically release both CAFC and NEV credits figures on its dedicated platform on March 20. The date was moved forward to April 10 in the new draft. .

iCET's comments to the new draft:

NEV-credits should not be transferred to compensate for shortage at the CAFC-credits regime, because this further weakens real CAFC improvement for the 95%-98% of China's vehicle fleet that is ICE technology based. With current flexibility mechanism at companies' disposal (e.g. NEV super-credits), we estimated in our CAFC annual analysis report¹⁰ that as much as 35% of the CAFC target can be met simply through NEV manufacturing rather than making any actual improvements to fuel efficiency. In the US, only over-compliance in *all* regimes (GHG requirement and ZEV requirement) can enable the accumulation of "over-compliance credits." Such credits could be used on the same year only, are capped for compliance (the value is reduced by 50% in some cases), and cannot be traded. ZEV credits can be traded and banked within the ZEV regime. Figure 4 shows the CAFC target and actual performance for various companies with and without inclusion of NEV super credits. The table shows that many companies in fact meet their CAFC target without relying on NEV super credits. Clearly, NEV credits are not needed and additionally, reliance on them produces adverse effects for fuel efficiency improvements for companies.

That said, if travel provisions will still be made possible in the final regulation, we highly suggest reducing the current 1:1 CAFC-credits/NEV-credits ratio (for example, to 2:1).

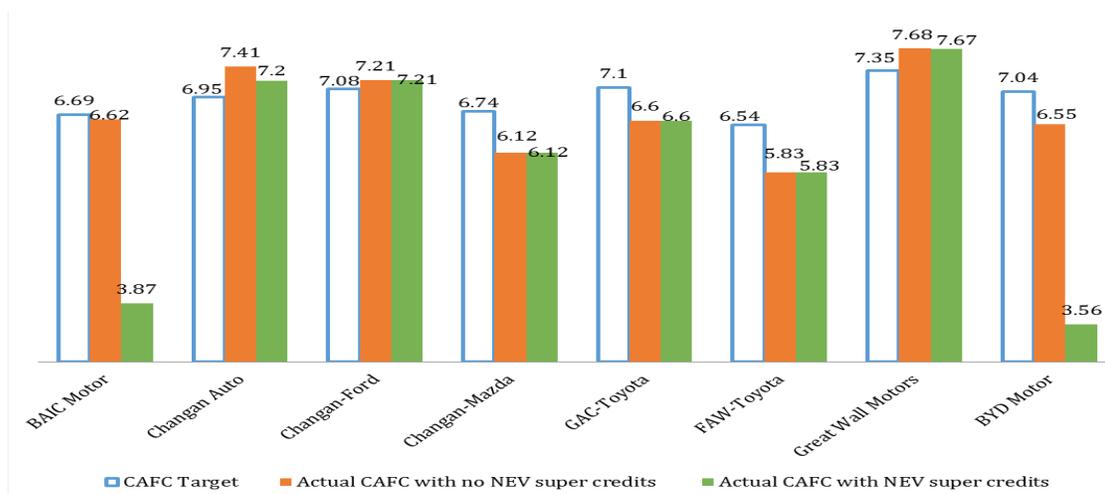


Figure 3: CAFC Targets and Performance, with and without NEV Super Credits

¹⁰ For example: <http://www.icet.org.cn/english/news.asp?id=250>

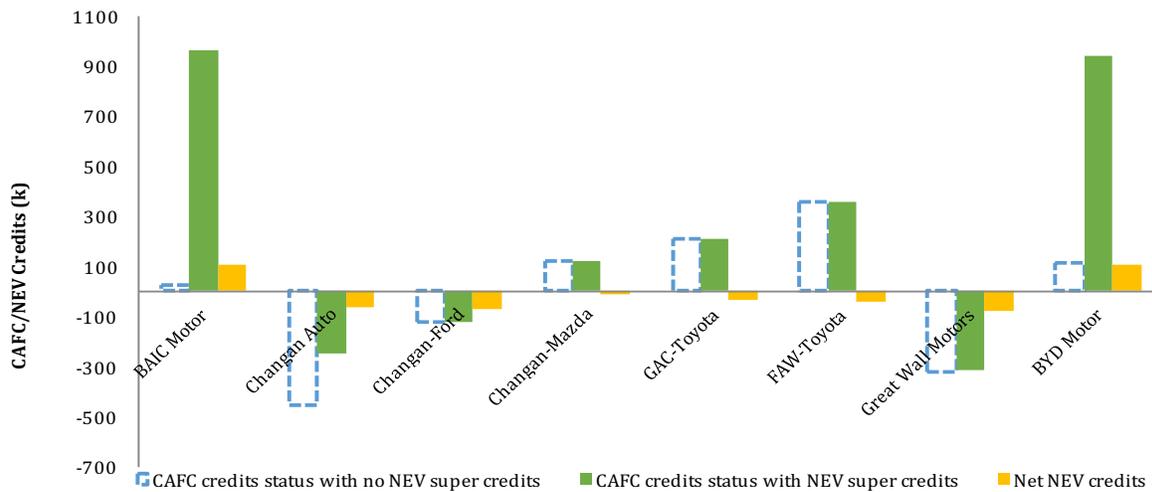


Figure 4: The level of credit excess for different companies, with and without NEV credits

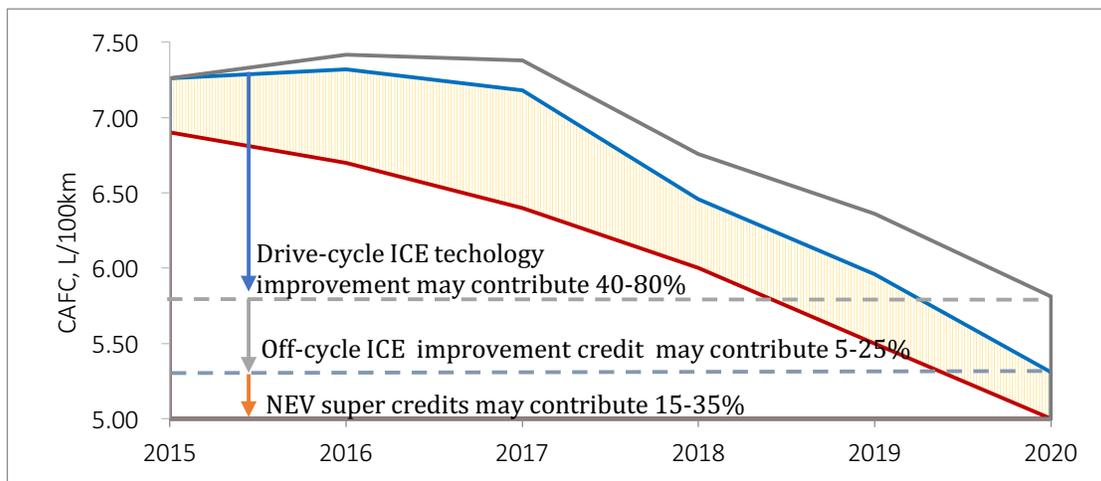


Figure 5: ICE Fuel Saving Technology and NEVs Preferential Accounting Impact on National Fuel Consumption Target Achievement

- ❖ **Establish a new authority responsible for auditing** compliance: sales, importation, FC, and credits calculation would be scrutinized, recorded, and verified through this entity (instead of relying on companies themselves to provide reliable data, which entails conflict of interests, and existing regulatory entities not experiences in hybrid-regulation management). Also, all stakeholders related to NEV development – from strategy to production to independent policy impact evaluation – should be considered integral to the implementation of the regulation. Each player can contribute to the effectiveness of the new NEV credits system.

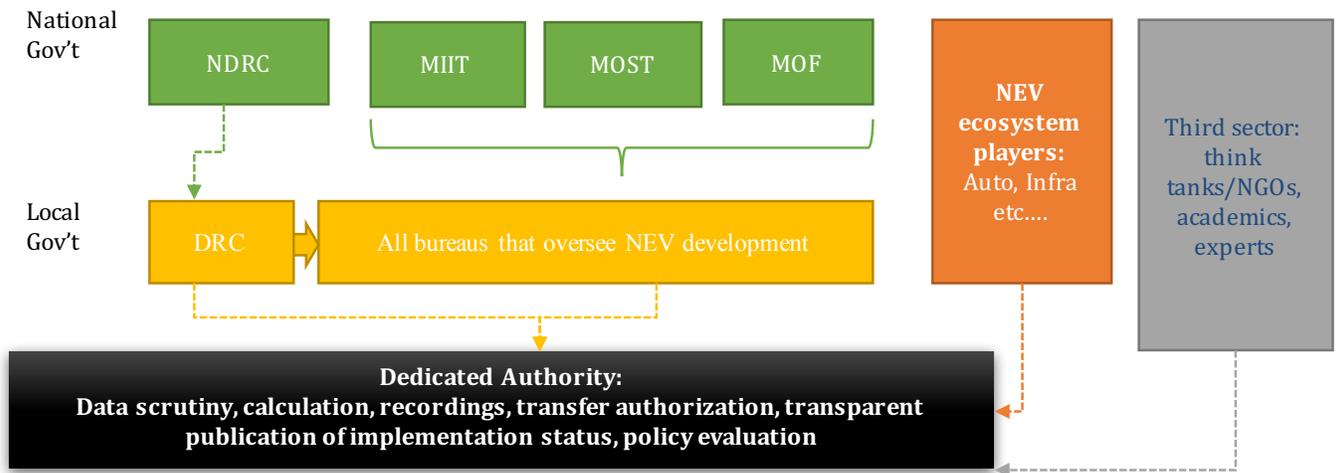


Figure 7: The roles of various national and local governments overseeing NEV development

- ❖ **Shift to sales-based credits volume determination instead of production/importation for setting the ZEV credits volume requirement.** This way, credits requirement will be linked to actual *in-use* fleet structure, while production remain the basis of compliance status only. That way, actual commercialization and environmental impact of NEV-credits mechanism could be better pursued.

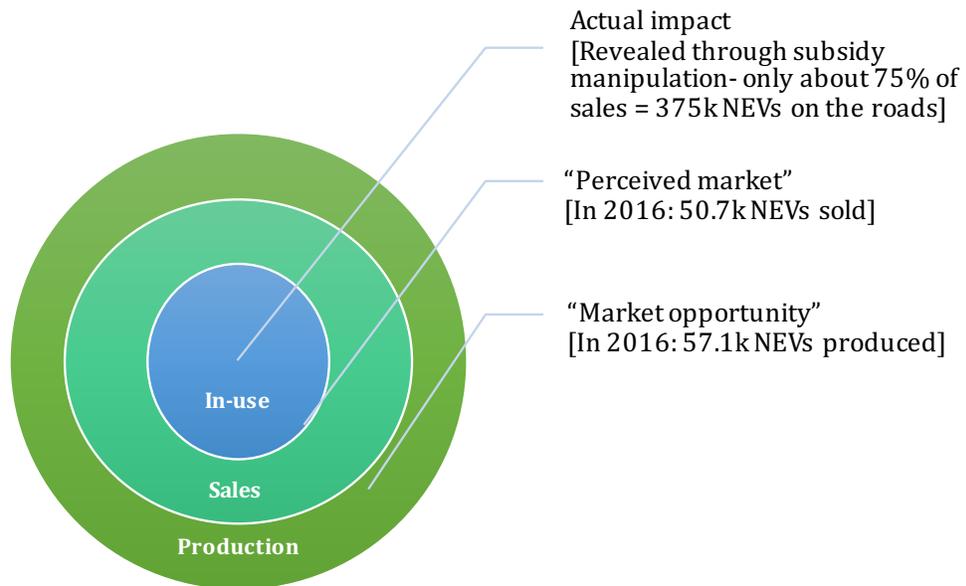


Figure 6: Passenger car production (market opportunity), and is seldom equal to in-use vehicle fleet (actual impact).

- ❖ **Instead of basing credit requirement on current year volume, shift to previous years' average volume** which can be verified prior to the implementation year. In other words, instead of year-start production predictions, shift to year-start fixed credits volume recognition. That way, no production volume manipulation is possible and targets will be strategically pursued by auto companies. In the case of the original ZEV-credits in California, companies could choose between an average or current year but this was recently changed to enable only one production volume determination using the average. The shift in regulation is following several years of implementation through which the current year approach arguably created an implementation loophole. The current year determination option is only possible if sales decreased by 30%.

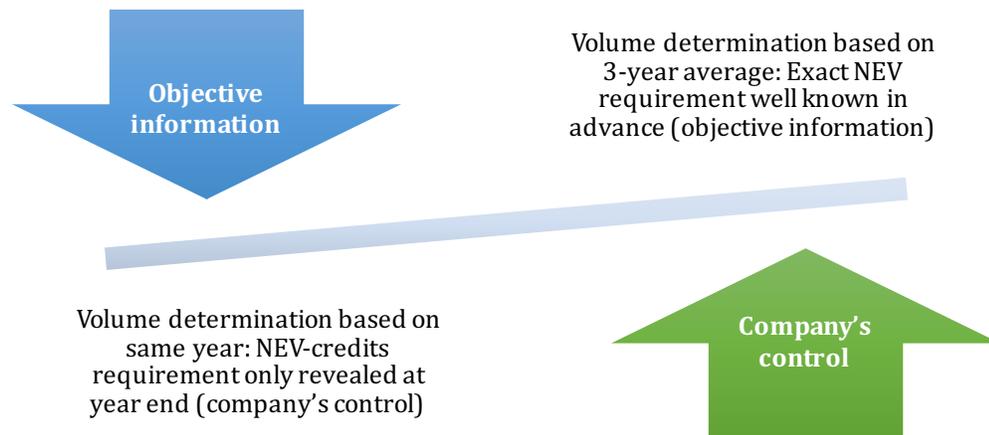


Figure 7: An objective credits-volume setting is such that is based on a three year average, as oppose to a same-year production volume-based credits termination which is subject to companies' control

- ❖ **Having a penalty is key for motivating actual implementation** of the standard and creating market conditions. Without a penalty, NEV credits may have no real value besides serving CAFC, which on its own, has already sufficient NEV flexibility mechanism that have proven to delay actual ICE vehicle engine efficiency improvements. In the case of California, companies must make up for a deficit in the following model year unless granted special permission for three year to do so. Companies can only make up a deficit by selling ZEVs and not TZEVs unless it is a small manufacturer. If still fails to comply, it is required to not only compensate for the deficit but also pay financial penalties (\$5,000 per vehicle not produced).

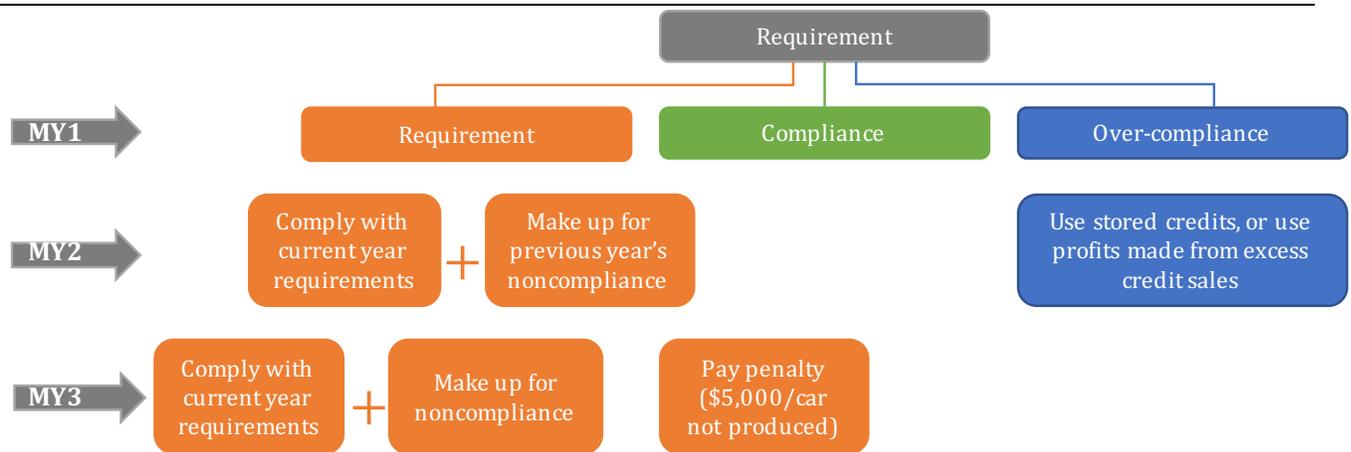


Figure 8: Suggested penalty process (penalty \$ value is the one used in the US ZEV regulation)

❖ **Although we embrace the shift to a formula-based credits calculation, we call for reconsidering the formula design.** In comparison with the US formula, the new draft formula, and the combined cycle it is based on, is rewarding the same BEV vehicle models with more credits that those enabled through the US ZEV regulation. We further encourage the shift to formula calculation for PHEVs (California is using the following formula: $(0.01 \times \text{EAER}) + 0.3$), without which many PHEV models will get much higher credits according to the new draft than those given to them in the US, further delaying actual zero emissions vehicle technologies development.

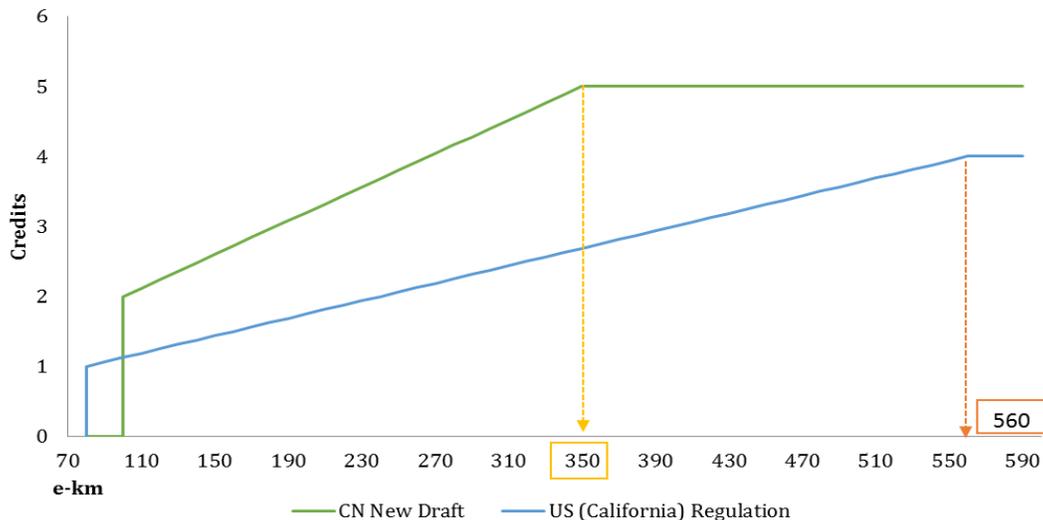


Figure 9: BEV Credits comparisons between the new NEV-credits draft and ZEV credits regulation in California

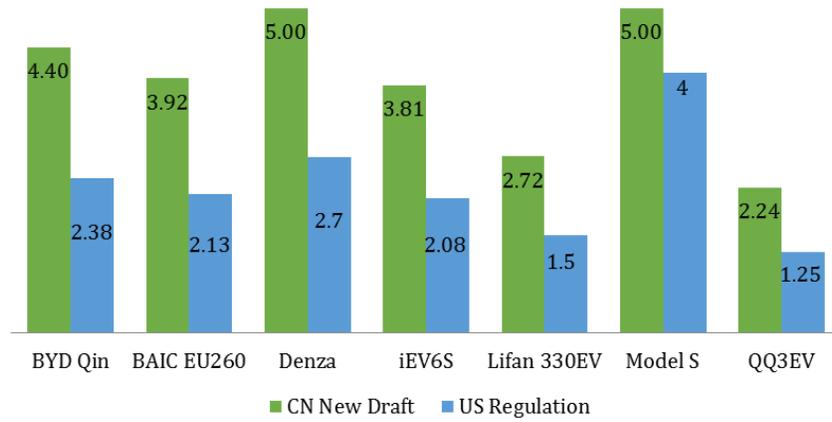


Figure 12: Combined cycle credits result for seven BEVs models under NEV-credits draft and ZEV-credits system compared

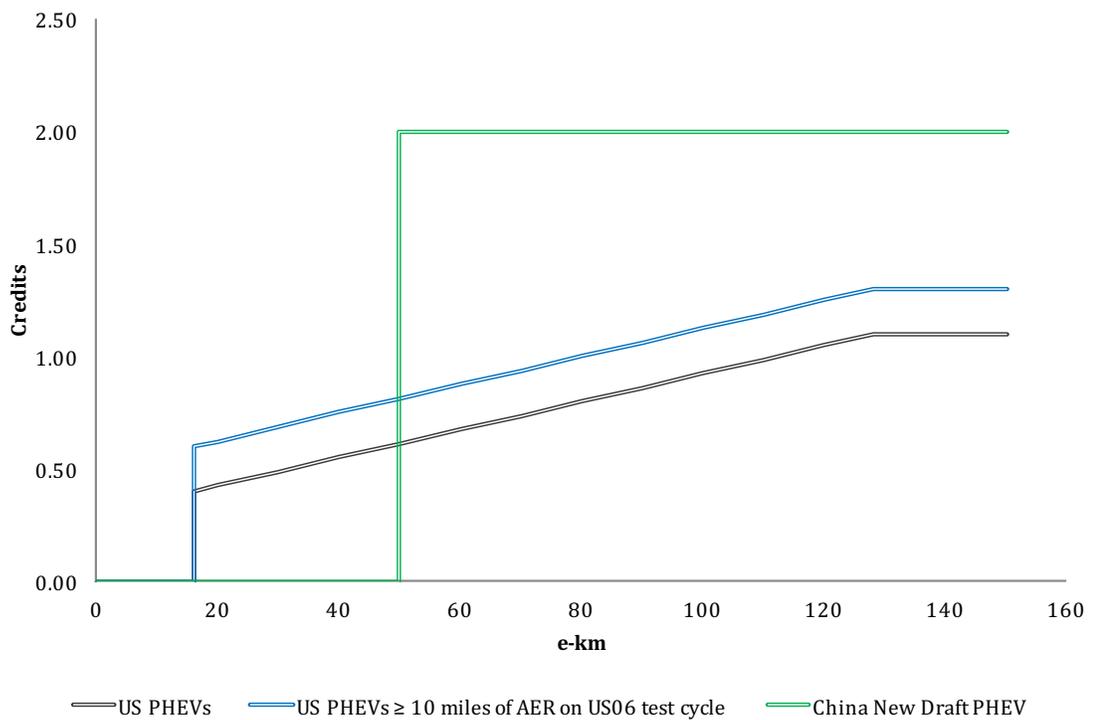


Figure 10: PHEV credits comparisons between the new NEV-credits draft and ZEV credits regulation in California

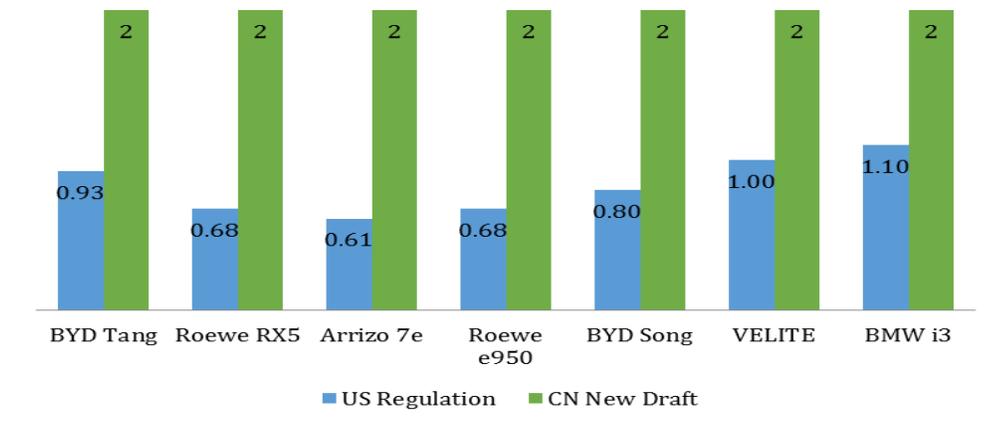


Figure 11: Comparison between credits from seven PHEVs models under NEV-credits draft and ZEV-credits system

❖ **Consider shifting the BEV formula test cycle to solely urban test** instead of the combined cycle under the assumption that urban driving conditions are more reflective of in-use mileage and driving behavior. The US has done this after thorough investigation. We encourage conducting similar investigation in China given the lack of e-cycle information transparency. Such an investigation is excluded from this policy brief.

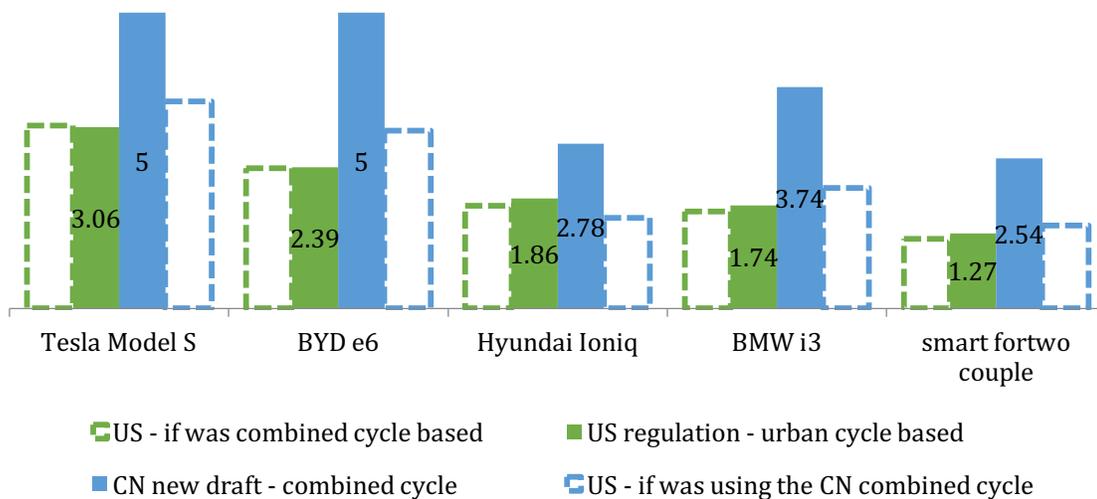


Figure 12: Urban cycle versus combined cycle credits result for seven BEV models under NEV-credits draft, California ZEV-credits system

❖ **Since the ultimate target is zero emission vehicle technology, PHEVs should be considered “transitional.”** Given the maturity of PHEV capacities of foreign manufacturers, China should push domestic manufacturers to pursue pure electric passenger vehicles technological advancement to gain global auto market leadership and transition to zero tailpipe emissions passenger mobility. Therefore: (1) **Set a minimal requirement for credits generated from zero emission vehicles such as BEVs/FCVs and a ceiling for credits generated through transitional vehicles such as PHEVs**, and increase minimal while reducing ceiling along the years. In the case of California, transitional ZEVs (TZEV, e.g. PHEVs, HICE¹¹) portion increase from a maximum of 2.5% to 6% from 2018 to 2025, while pure ZEVs (BEV, BEVx¹², FCV) portion requirement increases from 2% to 16% along this period. That way, by 2050, a 100% ZEVs implementation can be achieved, which is the ultimate target of the regulation; (2) **Reduce credits for PHEVs throughout the years** for advancing BEVs technology rather than PHEV technology, and increasing technological requirements for eligibility to receive the same volume of credits; (3) **Consider the inclusion of more detailed battery-engine technological relations**. In the case of the US, it has been evident that actual e-range of PHEVs is too complex to anticipate during actual in-use phase, partially due to technological features of PHEVs not addressed in existing regulations to date (for example, engine kicks-in when the state of battery charge is determined insufficient).

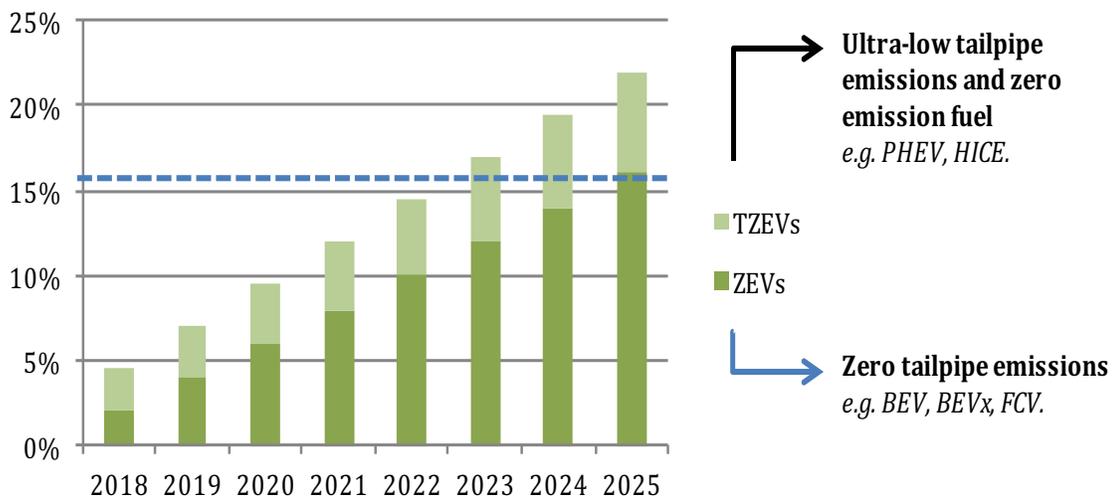


Figure 13: In California, ZEV-credits requirement increases with the years, and with it – the minimum requirement for ZEVs and the maximum utilization of Transitional ZEVs (TZEVs)

¹¹ Hydrogen Internal Combustion Engine Vehicle.

¹² Extended Range BEV.

**Average production
volume = 100,000;**

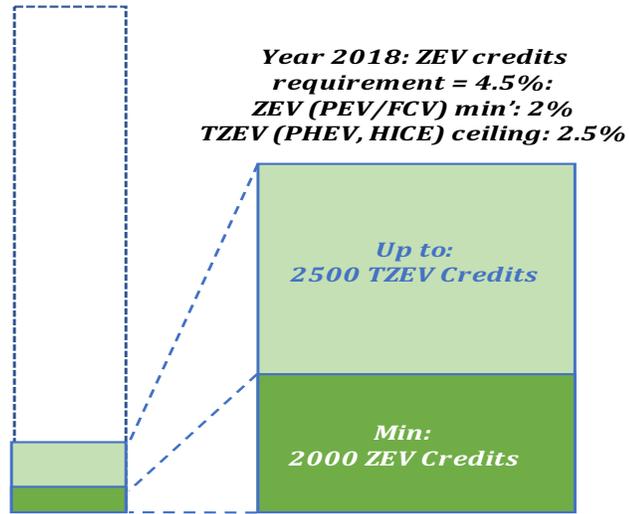


Figure 14: Example of a 2018 credits requirement in the US for the case of a 100k vehicle average manufacturer



Background:

iCET was involved in the design of China's first CAFC standard and has been tracking the development and implantation ever since. iCET has published an annual CAFC report each summer for the past six years, alongside an expert panel discussion in which automotive sector leaders and auto media representatives exchange ideas on the regulation and its implementation. An executive summary of 2016 CAFC Report is available online free of charge: <http://www.icet.org.cn/english/reports.asp?fid=20&mid=21>. iCET has been advocating on behalf of ZEV credits like regulation development in China since 2013. The following is a list of iCET's key work in this area:

- ✓ A translation of the ZEV credits regulation to Chinese, policy overview, a Tesla Motors case study, and a qualitative analysis of the policy development and its potential linkage to café. Available free of charge, here: <http://www.icet.org.cn/english/reports.asp?fid=20&mid=21>
- ✓ Several highly successful campaigns that promote an independent ZEV credits scheme in China. The campaigns included stakeholder engagement, including key stakeholders from China and the US through high-level events (2016 Climate Leader Summit, 7th Earth Temple Forum), close door meetings (e.g. in Shenzhen, Beijing, Chongqing, Shanghai, and Hefei) and media releases. Related news items available here: <http://www.icet.org.cn/english/newsroom.asp?fid=16&mid=17>
- ✓ A qualitative analysis summarized through a Q&A format policy suggestions brief for advising adaptation guidelines of the US ZEV credits to the case of China's NEV development. The report is available, free of charge, here: <http://www.icet.org.cn/english/reports.asp?fid=20&mid=21>
- ✓ Three years after iCET introduced the California's Zero Emission Vehicles (ZEV) credit trading concept to key Chinese stakeholders, NDRC officially announced its plans to adopt the scheme and requested iCET's input regarding implementation. The MIIT already released two drafts for a CAFC management system that include NEV-credits (ZEV-credits like mechanism). iCET was instrumental in jump-starting the ZEV process in China, and played an important role in advocating independent credits system since 2016. For example: <http://www.icet.org.cn/english/news.asp?id=237>
- ✓ iCET's advocacy in the US, is believed to have contributed to the inclusion of ZEV in the US-China Climate Change Dialogue announced in September, 2015: <https://www.whitehouse.gov/the-press-office/2015/09/15/fact-sheet-us-china-climate-leaders-summit>

We welcome your thoughts, suggestions and inquiries! info@icet.org.cn

Glossary of terms

Term	Description	Comments
CAFC credits	Encouraging the use of off-cycle energy-saving technologies such as tire pressure monitoring systems, efficient air conditioning, idle start-stop system, and shift reminder, by rewarding vehicles that implemented one or more of these technologies with fuel saving credits of up to 0.5 L/100km from their Test-Approval FC value. While two off-cycle technologies and device energy saving effects evaluation methods for passenger cars (start-stop system and eco-driving indicator device) have been drafted and recently entered into the public consultation stage, ¹³ the evaluation of the other two off-cycle technologies is still under research (air conditioning and shift reminder) and projected to be released next year.	A calculation method of CAFC credits was first introduced in 2013 as part of the standards' flexibility mechanism, "The average fuel consumption of passenger car business accounting approach" ¹⁴ (published by MIIT, NDRC, MOC, AOC and AQISQ). Should an auto corporate average fuel consumption (CAFC) annual figure be between the corporate limit and target (T_{CAFC}), the auto corporation is not eligible for credits (0); Should its annual CAFC be below the target, credits could be gained. There are generally two types of credits: 'regular' CAFC credits (generated from energy efficient technologies) and CAFC super credits (also referred to as CAFC regime NEV credits). To date, auto corporations have somewhat voluntarily produced NEVs and their credits have been calculated for reducing their CAFC.
CAFC (NEV) super-credits	In the existing CAFC accounting method, a single NEV is considered as up to 5.0L/100km cars and can be traded between companies for CAFC compliance purposes, providing direct benefits for its manufacturers.	

	PEV	FCV	PHEV*	ESV**
~2015	5	5	5	3
2016-2017	5	5	5	3.5
2018-2019	3	3	3	2.5
2020	2	2	2	1.5

* Plug-in electric vehicles (PHEVs) are defined as cars with electric range of at least 50km.

** Energy Saving Vehicles are defined as cars with fuel consumption lower than 2.8L/100km.

¹³ Recommended national automobile standard "Evaluation methods of the energy-saving effects of off-cycle technology units for passenger vehicles" (exposure draft) <http://www.catarc.org.cn/NewsDetails.aspx?ID=2641>, Access in July 22, 2016.

¹⁴ Five ministries jointly published "Calculation method of Passenger Vehicle Corporation Average Fuel Consumption", http://www.gov.cn/gzdt/2013-03/20/content_2358627.htm, Access in February 20, 2017.



NEV Credits

An annual NEV Credits requirement set as a percentage of corporate production volume (excluding NEVs), based on the California ZEV-credits model. It is independent from the CAFC regulation, yet according to the proposed draft, NEV credits could be used by corporations in compliance with the CAFC regime. Further elaborated in this policy brief.

MIIT introduced a new NEV-credits trading regulation draft under its overarching CAFC standard, "Recommended average fuel consumption of passenger cars and new energy vehicle credits synchronized management approach" in a July 2016 draft release, followed by a June 2017 revised draft.