2014 中国乘用车燃料消耗量发展年度报告

2014 China Passenger Vehicle Fuel Consumption Development Annual Report

能源与交通创新中心

The Innovation Center for Energy and Transportation

15/8/2014

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机构简介 | Organization Intro

能源与交通创新中心（*i*CET）是在美国加州和中国北京注册的独立的、非营利的专业智库机构。其核心使命是为各级决策者提供能够缓解能源和气候危机并创造绿色能源生态体系所急需的创新型解决方案。 ***i*CET**在北京CBD和加州洛杉矶设有办公室， 在纽约设有办事处。

The Innovation Center for Energy and Transportation (*i*CET) is a China and California registered NGO, dedicated to clean transportation development in China primarily through informing policy-makers and private sector decision-makers.

清洁交通
Clean Transport

碳管理
Carbon Management

清洁技术
Innovative Technologies

主要项目简介 | Core Programs

- **清洁交通 | Clean Transportation**
  - 汽车燃料经济性标准及政策实施评估
    Fuel economy standards implementation evaluation
  - 中国绿色汽车评估体系
    China Green Car System
    [car rating website, annual report, social media, education]
  - 可持续低碳燃料标准与政策倡议
    Sustainable low-carbon fuel regulation recommendations
  - 清洁交通创新机制研究
    Innovative systems evaluation and design

- **碳管理 | Carbon Management**
  - 中国碳注册系统
    China Carbon Registry
  - 温室气体管理国际培训课程
    GHG Management Solutions Training
  - 引荐加州AB32温室气体减排政策
    California's AB32 Regulation Training

- **清洁技术 | Clean Technology Transfer**
  - 美中清洁技术中心
    US-China Clean Technology Center

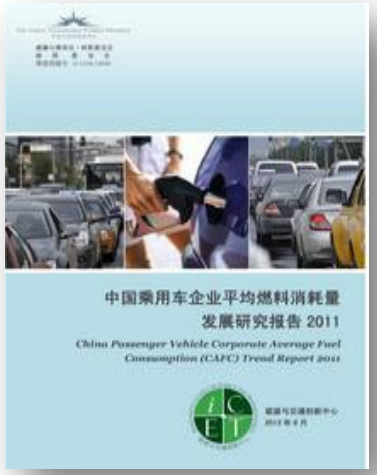
超过十年参与中国机动车燃料经济性制定与跟踪研究 2002-2014 CAFE Experience

超过十年研究与跟踪
Over 10 years of research work

研讨&发布会 4+
4 annual workshops

研究报告 10+
10 Research studies

1. 帮助中国建立一系列乘用车燃料消耗量标准；
   Help China establish the first fuel economy standard, raise standards and policy suggestions.
2. 技术研究与政策建议，报告超过10份；
   Research studies tailored for advising regulatory design, producing over 10 reports
3. 持续评估自2006年以来以企业为基础单位的乘用车燃料经济性标准实施效果与趋势，填补了国家在这方面的空白。
   Market uptake assessment since 2006, tracking implementation gaps and advising decision-makers.



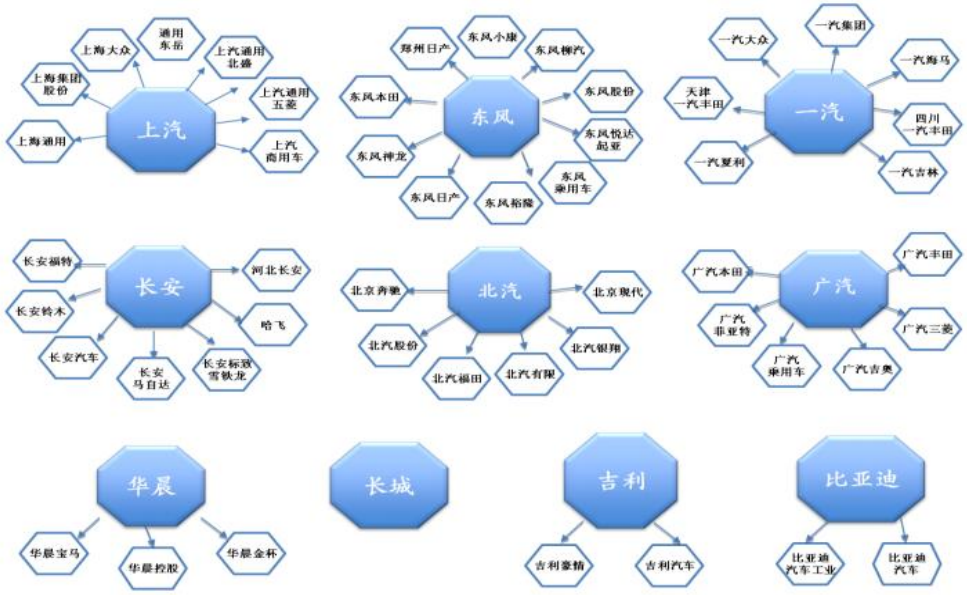
2006-2013 中国燃料消耗量发展年度报告 | Annual CAFC Reports

圆桌研讨会2013 Roundtable

企业平均燃料消耗量（CAFC）核算主体与报告数据来源 Data Sources

CAFC核算主体：

1. 79家汽车企业:含33家合资品牌，46家自主品牌
   79 domestic vehicle manufacturers : 33 JVs & 46 Independent
2. 25家进口车经销商
   25 importing dealers
3. 10大汽车集团
   10 Major Groups



*i*CET CAFC 核算数据来源：

数据来源 Data Sources	
综合油耗及汽车参数 FC &Curb-weight Data	中国汽车燃料消耗量网站 the website of Automobile Fuel Consumption of China
国产车产量 Production Volumes	中国汽车工业协会 China Association Of Automobile Manufacturers
海关进口量 Import Vehicle Data	国机集团 中国进口汽车贸易有限公司 CHINA AUTOMOBILE TRADING CO., LTD

*i*CET核算与MIIT公示差异性

1. CAFC实际值与目标值
   总体差异不超过1%；
   China's average CAFC as provided by MIIT has 1% gap from *i*CET data.
2. 万辆以上企业差别±5%以内；
   Producers of >10k vehicles may incur production gap of 5%

2006-2013

乘用车燃料消耗量发展趋势

CAFC Development Trends

即将进入四阶段，燃料消耗量管理体系逐步完善， 从限值到企业平均值发展
Fuel Economy Development towards Phase IV

Design 实施前

GB/T 19578 -2004 限值标准

GB/T 19233-2003传统车测试标准

Measurement methods of fuel consumption for light duty vehicles

2005

Phase I 第一阶段

GB/T 18386-2005 电动车测试标准

Electric Vehicles Standard Test (2010-2013)

2008

Phase II 第二阶段

节能汽车优惠 2010-2013

燃料消耗量标示管理规定 2009.07

CAFC评价与指标 GB27999 -2011

GB 22757-2008 燃料标识标准

Replaced GB19233-2003; Details for the implementation of GB19578-2004; Governing gasoline and diesel powered M1, M2, N1 vehicles not exceeding 3500kg

New Energy Vehicles Preferential treatment (2010-2013)

2012

Phase III 第三阶段

GB/T 19578 -2014 限值标准

CAFC评价与指标 GB27999 -2014

Draft for replacing GB19578-2011; Governing gasoline and diesel powered passenger vehicles not exceeding 3500kg (FC limits); Draft for replacing GB 27999—2011 (FC Targets).

CAFC Measurement Methods, Detailed Management Framework

2016

Phase IV 第四阶段

发展规划2012.09

CAFC核算办法 2013.03

加强管理办法* 2014.07

完善燃料消耗量管理体系，有效实施标准，达到目标。

CAFC management under completion, 2015 targets projected to be met.

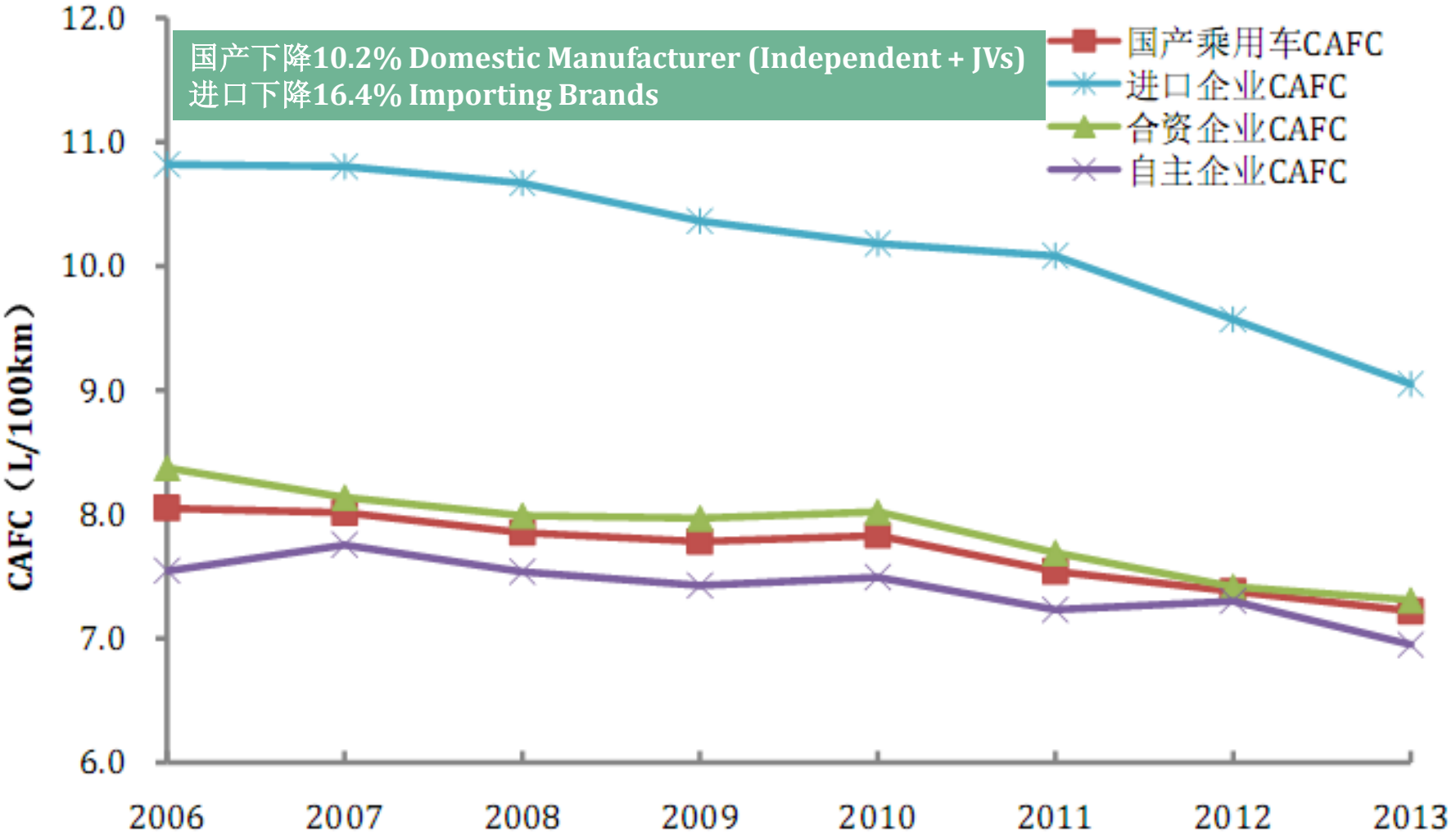
标准体系：测试、标识、限值等

Standard System: testing, labeling, limits, targets

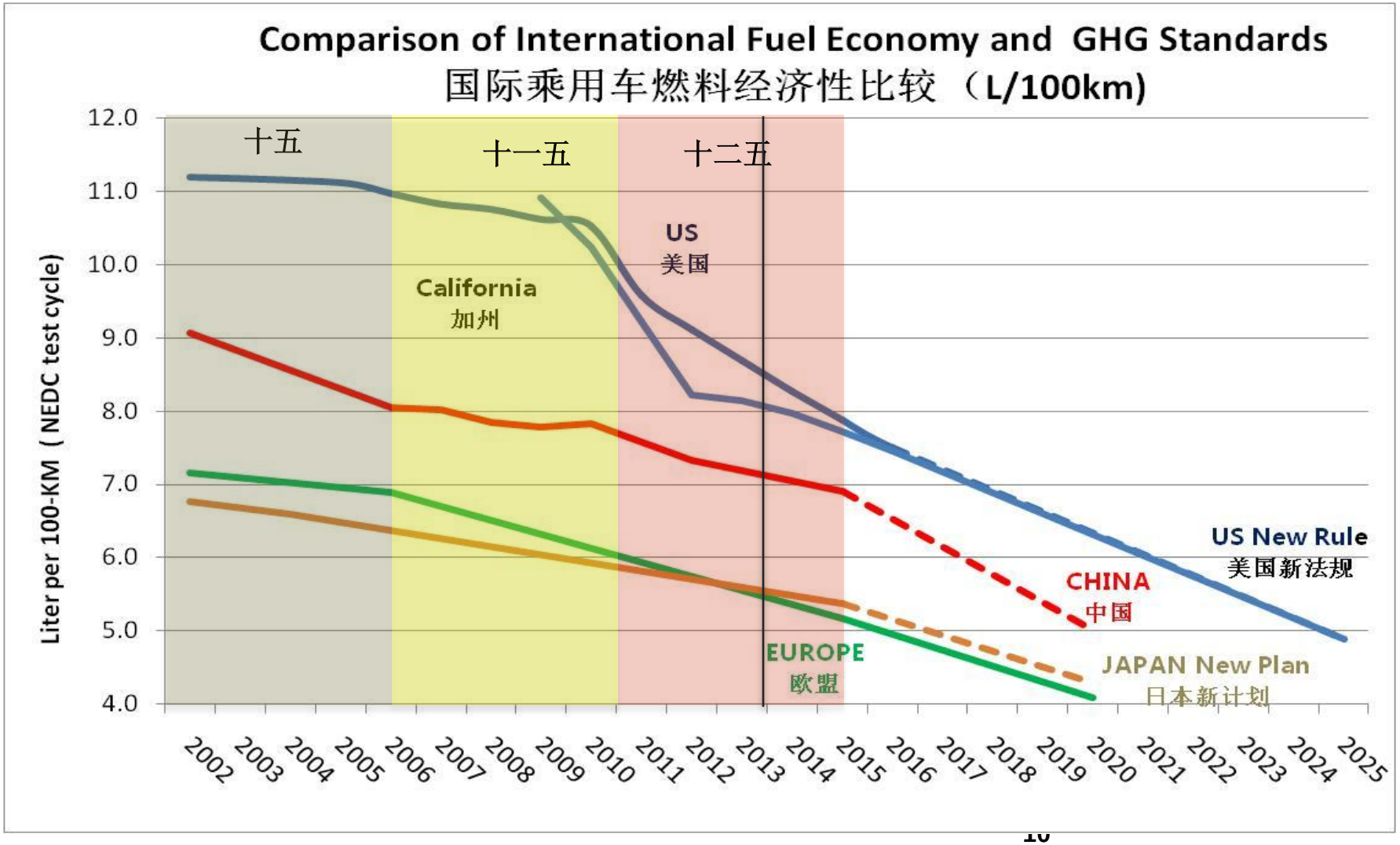
管理体系：正在完善

Management system needs improvement

2006-2013年中国燃料消耗量下降10.2%，年均降幅约2.3%
Average annual CAFC reduction of 2.3% totaling 10.2% between 2006 and 2013



中国与国际乘用车燃料经济性比较， 过去10年下降较为缓慢，10年百公里仅下降1升 Compared with international fuel economy, China's FC declined moderately with one liter per hundred kilometers

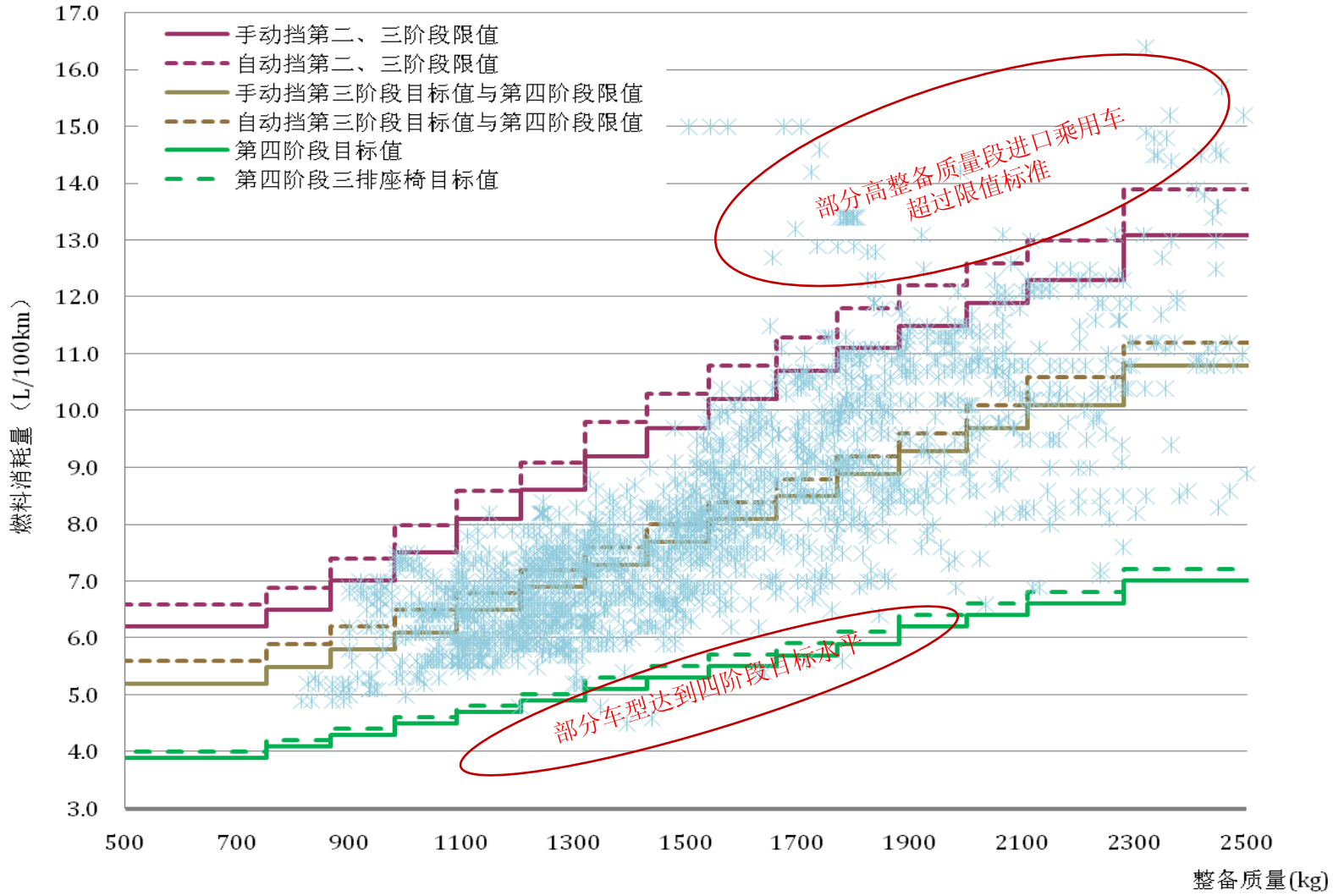


2013-2014

中国燃料消耗量发展现状

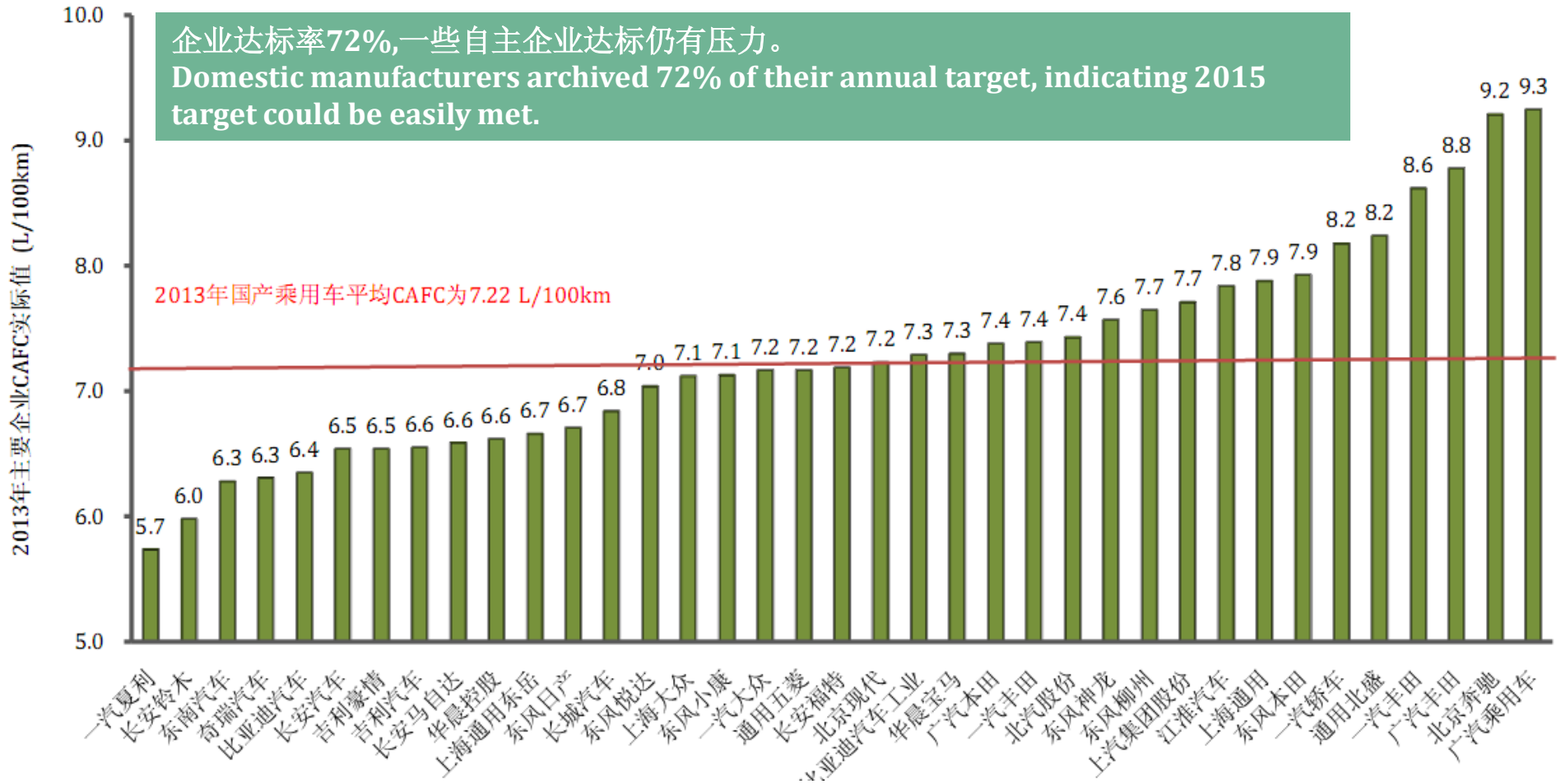
CAFC Development Trends Analysis

2013年约一半新车已可达III目标, 少量车型可到IV目标，高整备质量段的进口车不合标 Most 2013 car models meet their annual target and some reach 2020 target, however mainly imported cars are far from meeting their limits

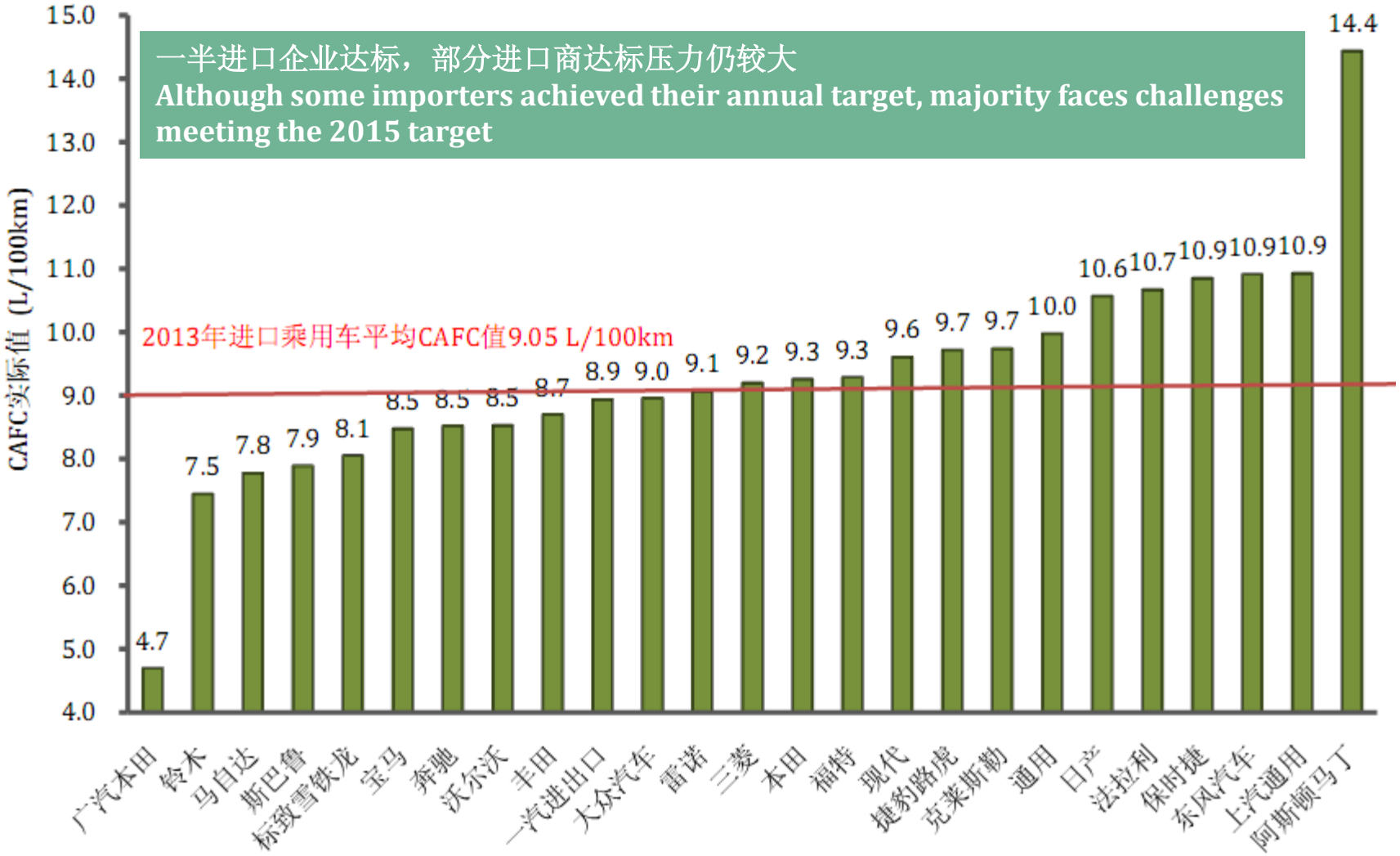


2013国产乘用车CAFC为7.22 L/100km, 同比下降2.1%
In 2013 domestic CAFC decreased by 2.1%, reaching 7.22L/100km

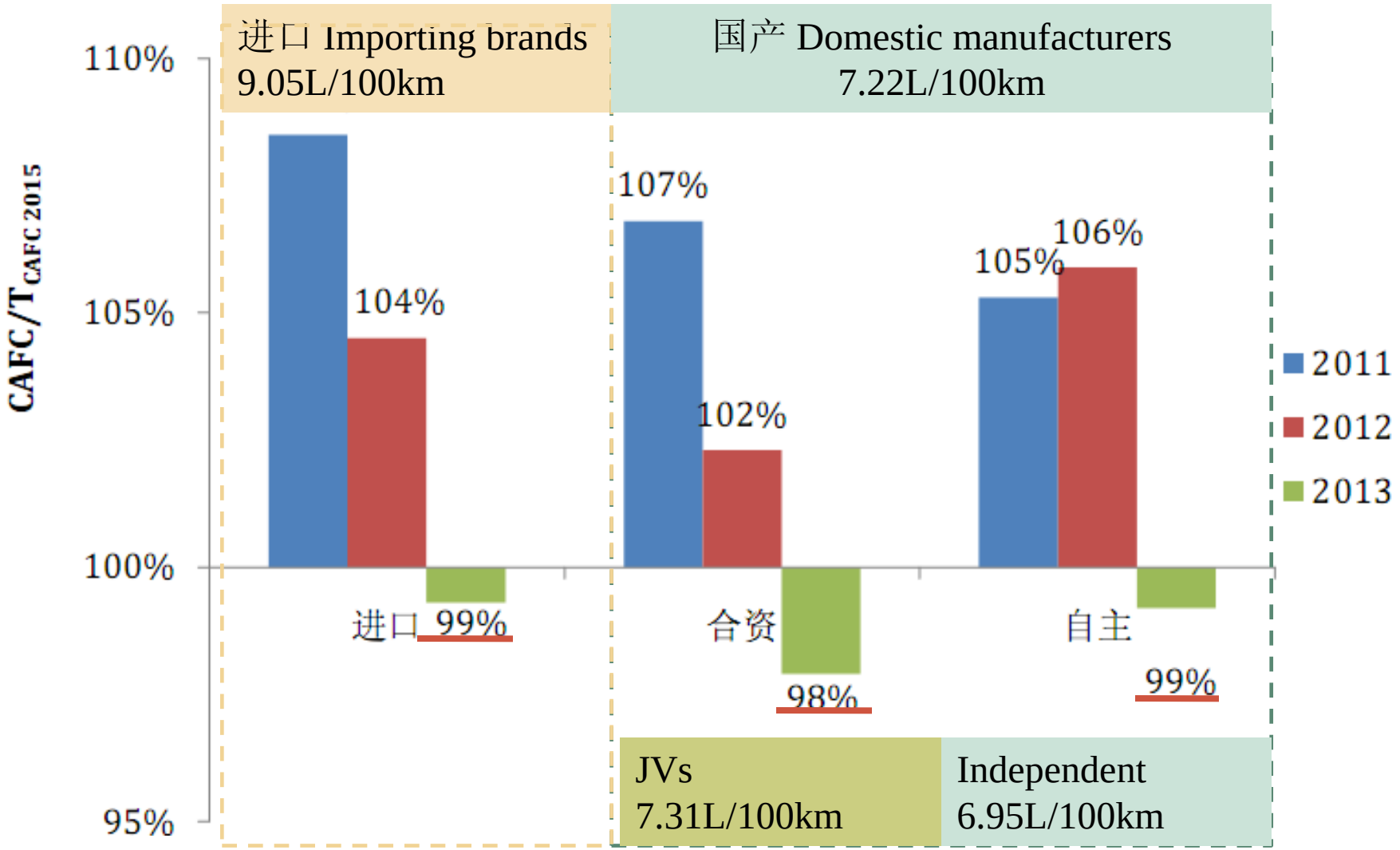
企业达标率72%,一些自主企业达标仍有压力。
Domestic manufacturers archived 72% of their annual target, indicating 2015 target could be easily met.



2013进口乘用车CAFC为9.05L/100km,同比下降5.4%
In 2013 importing brands CAFC decreased by 5.4%, reaching 9.05L/100km



2013平均CAFC达到当年目标值水平，实现2015年目标无压力
On average, China's CAFC met its annual target and will meet 2015 target

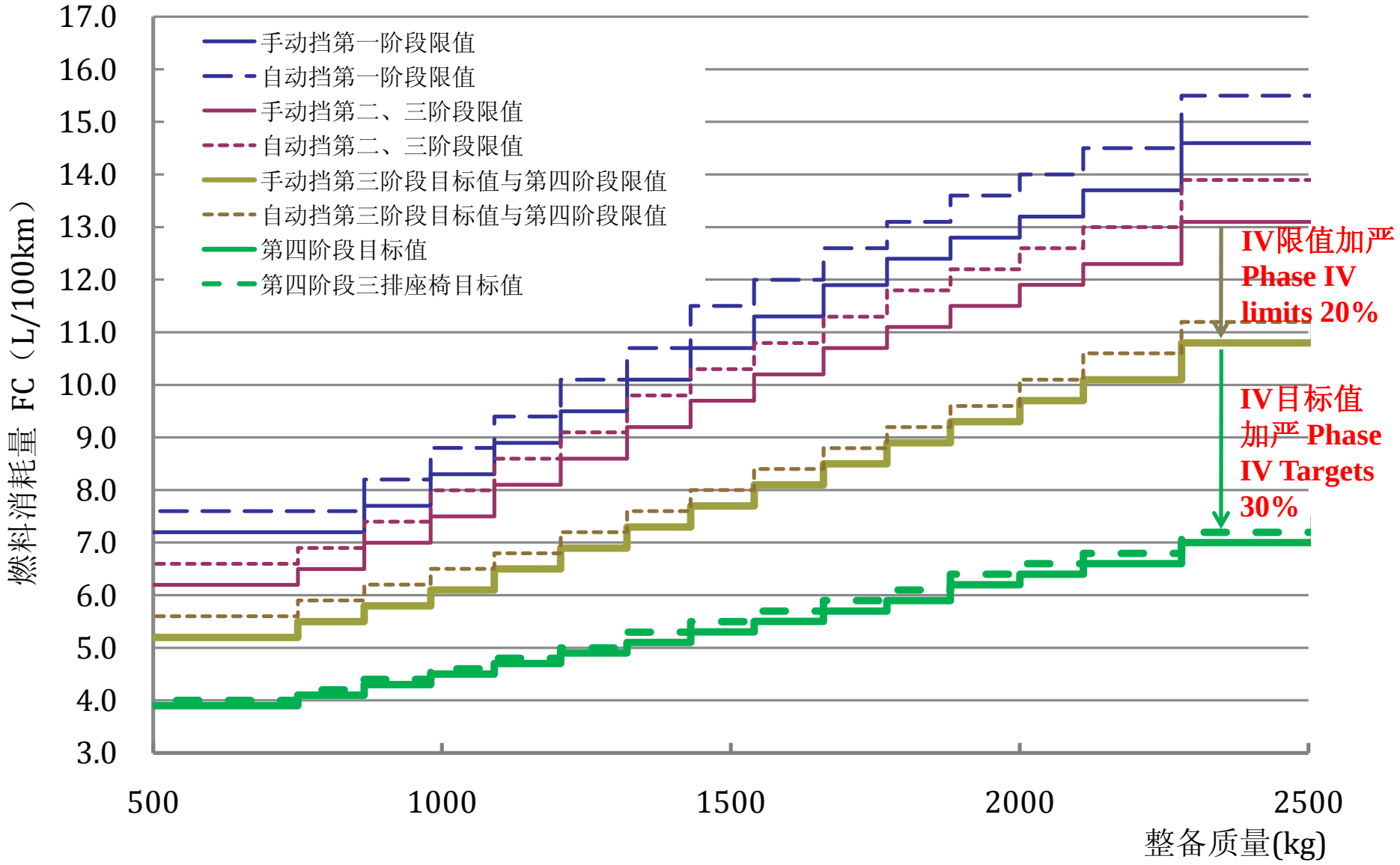


2014-2020

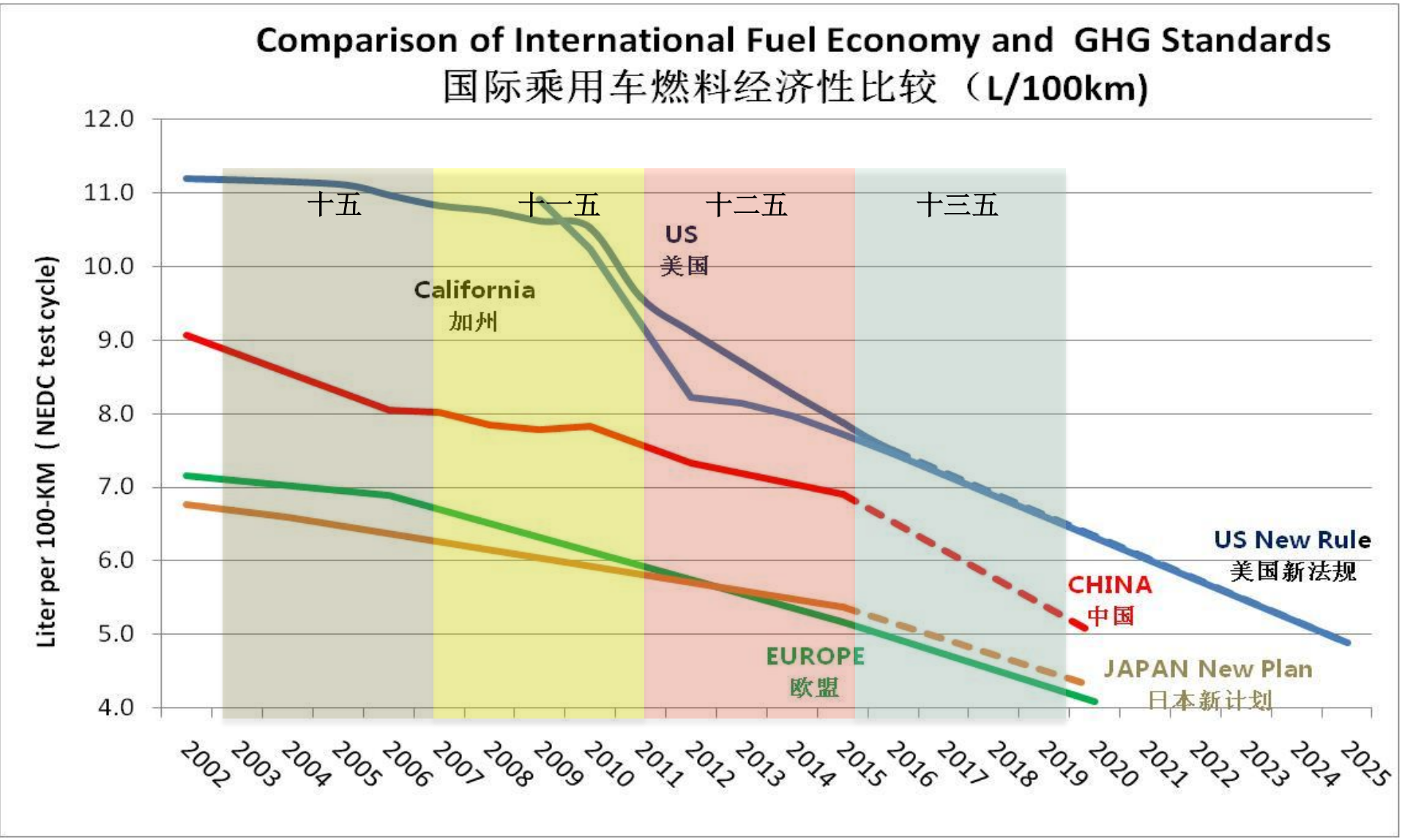
燃料消耗量目标差距

Fuel Consumption Targets Gaps

四阶段标准单车限值加严20%左右，单车目标值加严30-35%
Phase IV vehicle FC limits and targets are ~20% and ~30-35% more stringent, respectively



十三五期间我国汽车企业节能压力巨大，但潜力也巨大
13th FYP promotes vehicle energy saving



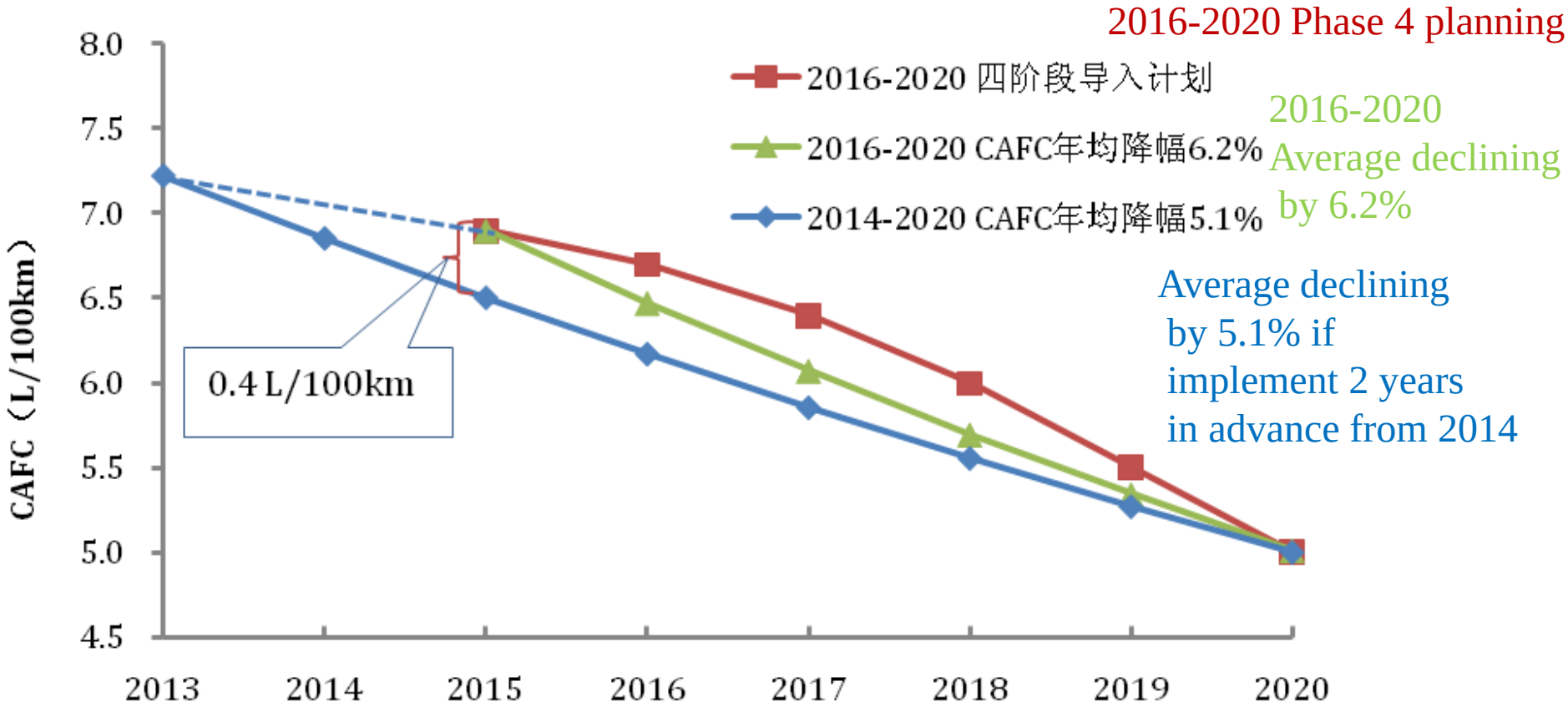
四阶段目标导入计划由松及严，2020燃料消耗量年降幅需达9%
Phase IV introduces gradual stringency increase in annual CAFC targets, reaching 9% towards 2020

年份 Year	CAFC/ $T_{CAFC2020}$	年下降 百分点 % points change	CAFC L/100km	年度下降Annual decrease L/100km	年降幅度 Annual change
2013	144%	5	7.22	0.16	-2.1%
2014	141%	3	7.06	0.16	-2.2%
2015	138%	3	6.90	0.16	-2.3%
2016	134%	4	6.70	0.20	-2.9%
2017	128%	6	6.40	0.30	-4.5%
2018	120%	8	6.00	0.40	-6.3%
2019	110%	10	5.50	0.50	-8.3%
2020	100%	10	5.00	0.50	-9.1%
平均值 Average		**7.6**			**-6.2%**

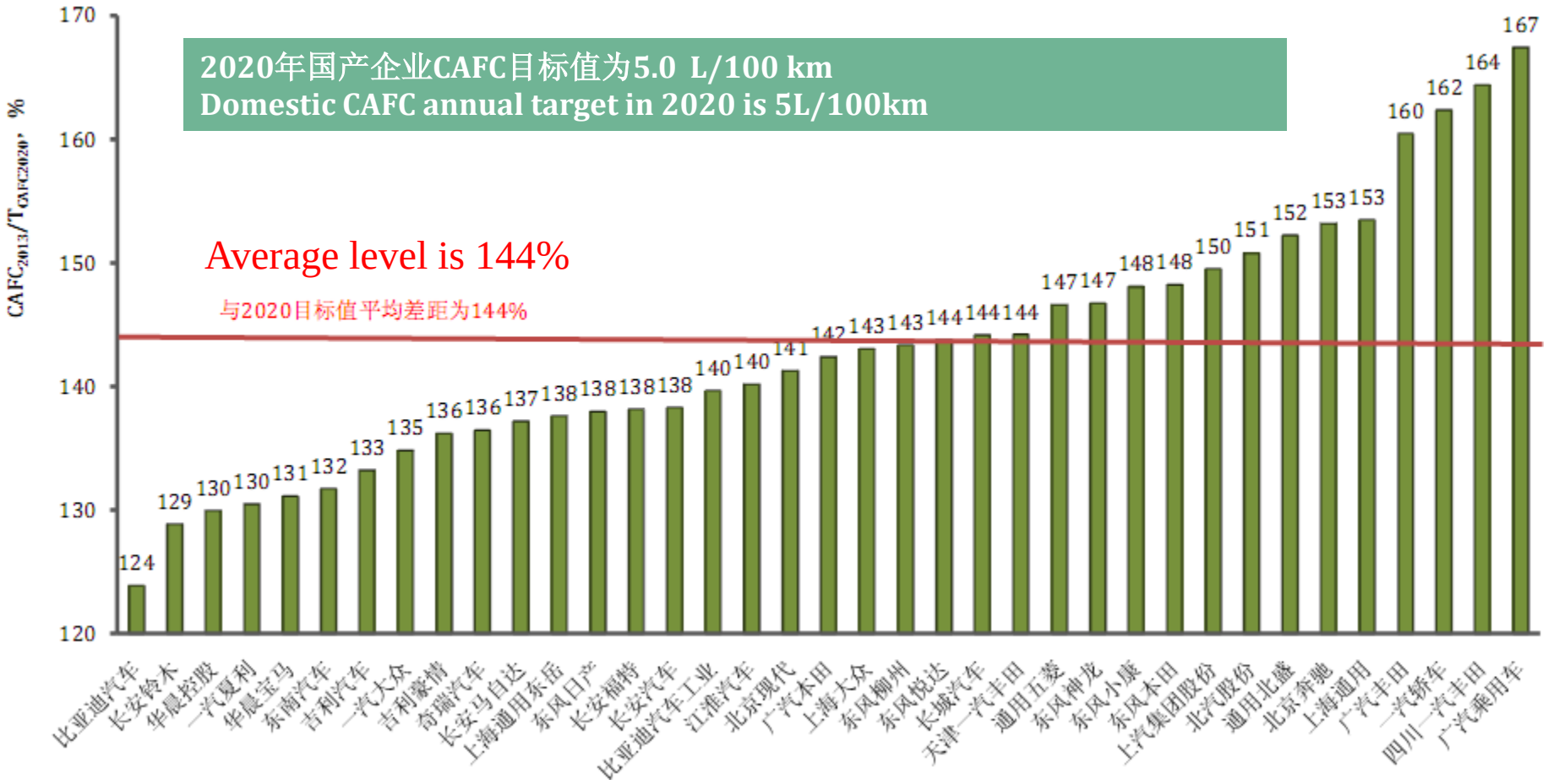
IV目标由松及严
IV Phase stricter by year

未来七年（2014-2020）中国乘用车CAFC需下降30.7%，需先进节能技术、新能源汽车及额度交易机制等助力

In the next 7 years, should CAFC will fall by 30.7% - advanced energy-saving technologies, new energy vehicles and credit trading programs are in need

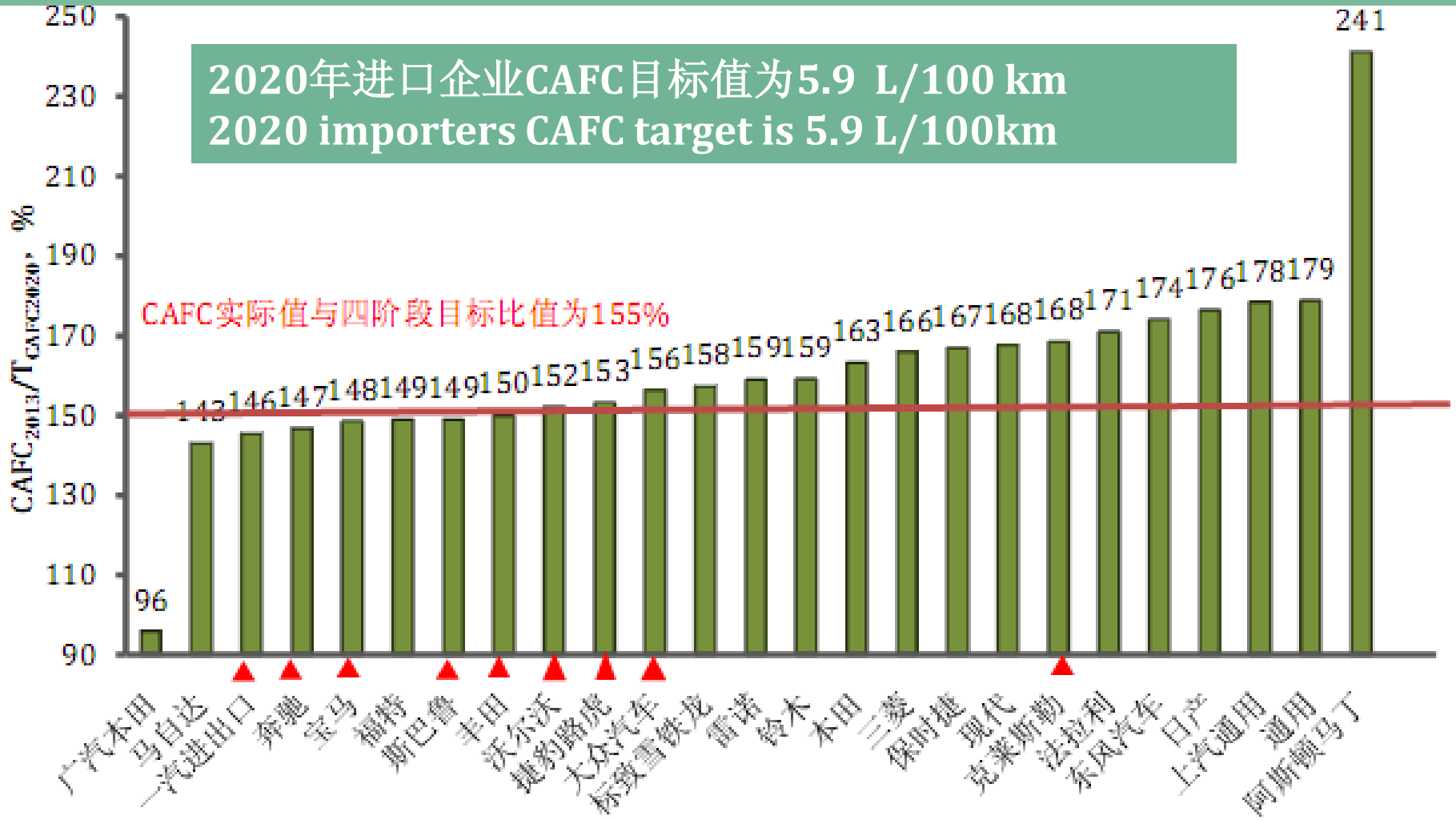


国产乘用车2013 CAFC实际值与目标值(IV)
平均比值为144%，小型、轻量车企业更具优势
In 2013 domestic actual CAFC was144% of their Phase IV target, small and light-weight car manufacturers are closer to meeting Phase IV target



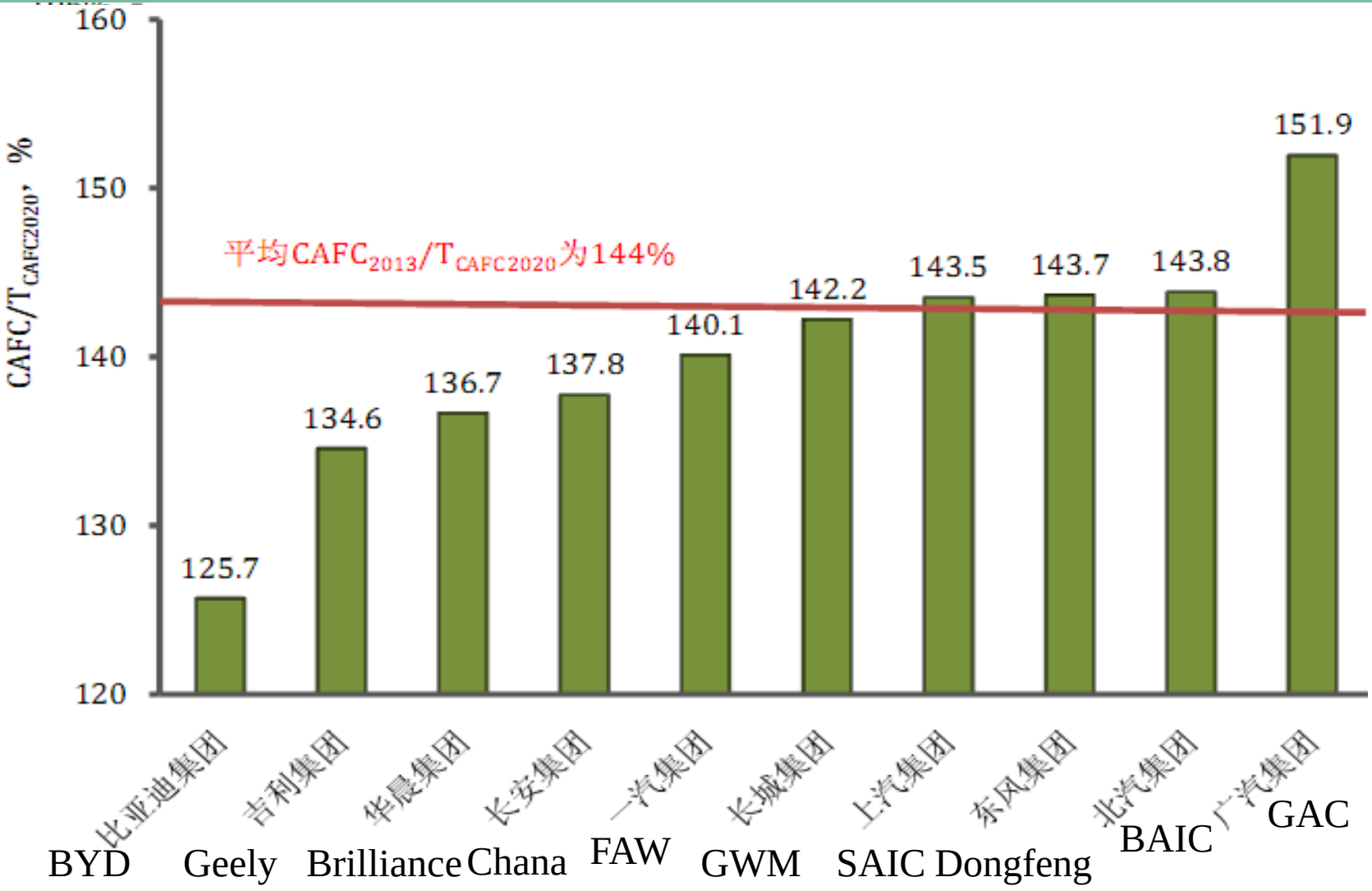
注：图中为2013年产量10万辆以上企业, Listed automakers with production over 100K in 2013;

进口汽车2013 CAFC 实际值与目标值（IV）
平均比值为155%，压力比国产企业大
In 2013 importing brands' actual CAFC was155% of their Phase IV target, much improvement needs to take place in the coming 7 years



▲ 为乘用车进口量5万辆以上的进口经销商企业, dealers imported more than 50K cars in 2013;

核算主体变化将直接改变企业达标情况
集团内企业经申请批准可合为一个核算主体
If calculating by China's leading Auto Groups instead of their subsidiary manufacturers, targets could be more easily met

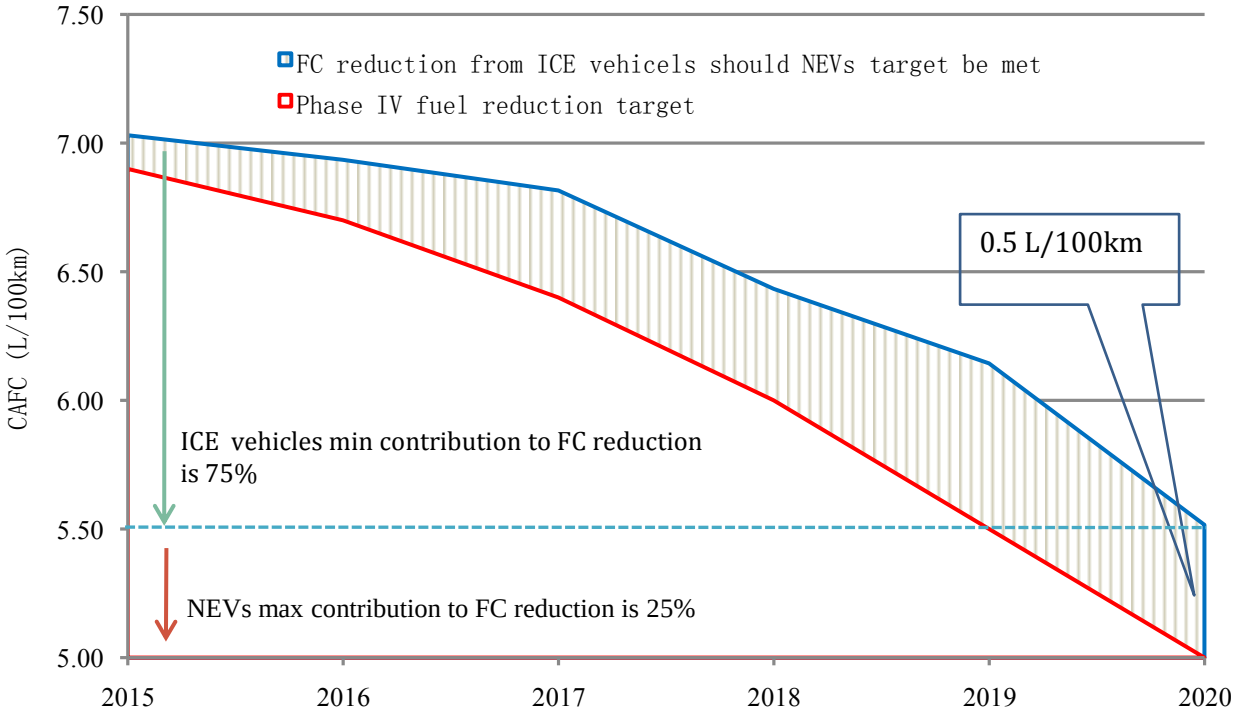


2020年目标5.0L/100km
实施讨论
Meeting the 2020 5L/100km Target

新能源汽车最优情景降低燃料消耗量0.5 L/100km,对目标下降贡献25%
If China's NEV targets internalize, NEVs would contribute as much as 25% in meeting the 2020 CAFC target, contributing 0.5L/100km

年份 Year	NEV核算倍数 Calculation
2016	5
2017	5
2018	3
2019	3
2020	2

年份 Year	CAFC 下降 Decrease
2016	0.2
2017	0.3
2018	0.4
2019	0.5
2020	0.5



情景假设 Assumptions:

1. 到2020年，新能源乘用车160万辆（占NEV200万辆目标的80%）
   By2020, China's private NEVs will reach 1.6 million (80% of the NEV target)
2. 传统乘用车年增速8%，2020年产量为3100万辆
   Private vehicle annual increase of 8%, translating to 31 million unit produced in 2020
3. 新能源汽车燃料消耗量以零计算
   NEVs considered as zero FC vehicles

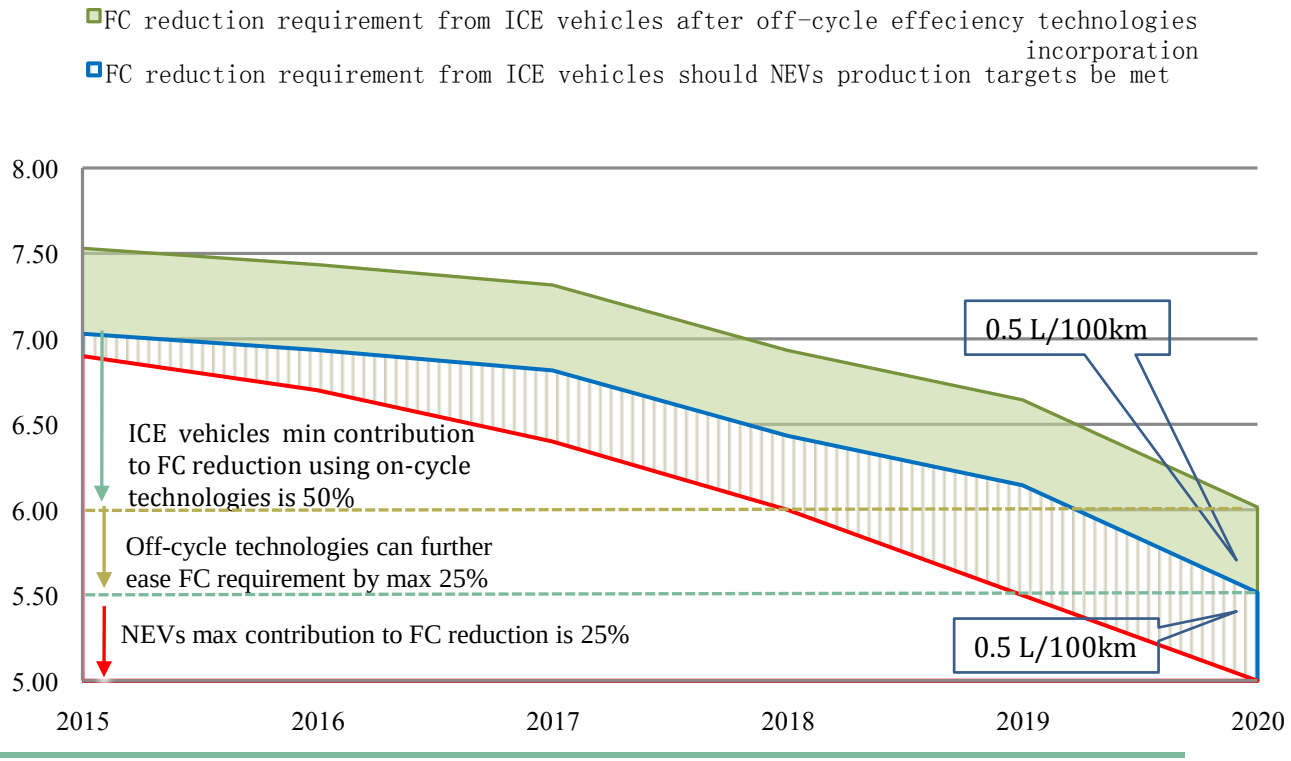
工况外节能技术额度最大可贡献0.5L/100km,与新能源汽车相加下降最大贡献可达50%，增加了达标不确定性

Off-cycle energy saving technologies' and new energy vehicles reliefs can each ease the 2020 target by 0.5L/100km, contributing 50% to implementation

?

2020 新能源与工况外节能技术额度到底将贡献多少？
What would be NEVs and ESVs actual contribution to the 220 target?

工况外节能技术额度补贴 不高于0.5 L/100km Off-cycle technologies eligible for 0.5L/100km relief
轮胎气压监测系统 Tire pressure monitoring systems
高效空调 Efficient air conditioning
怠速启停 Idle start-stop system
换挡提醒 Shift reminder

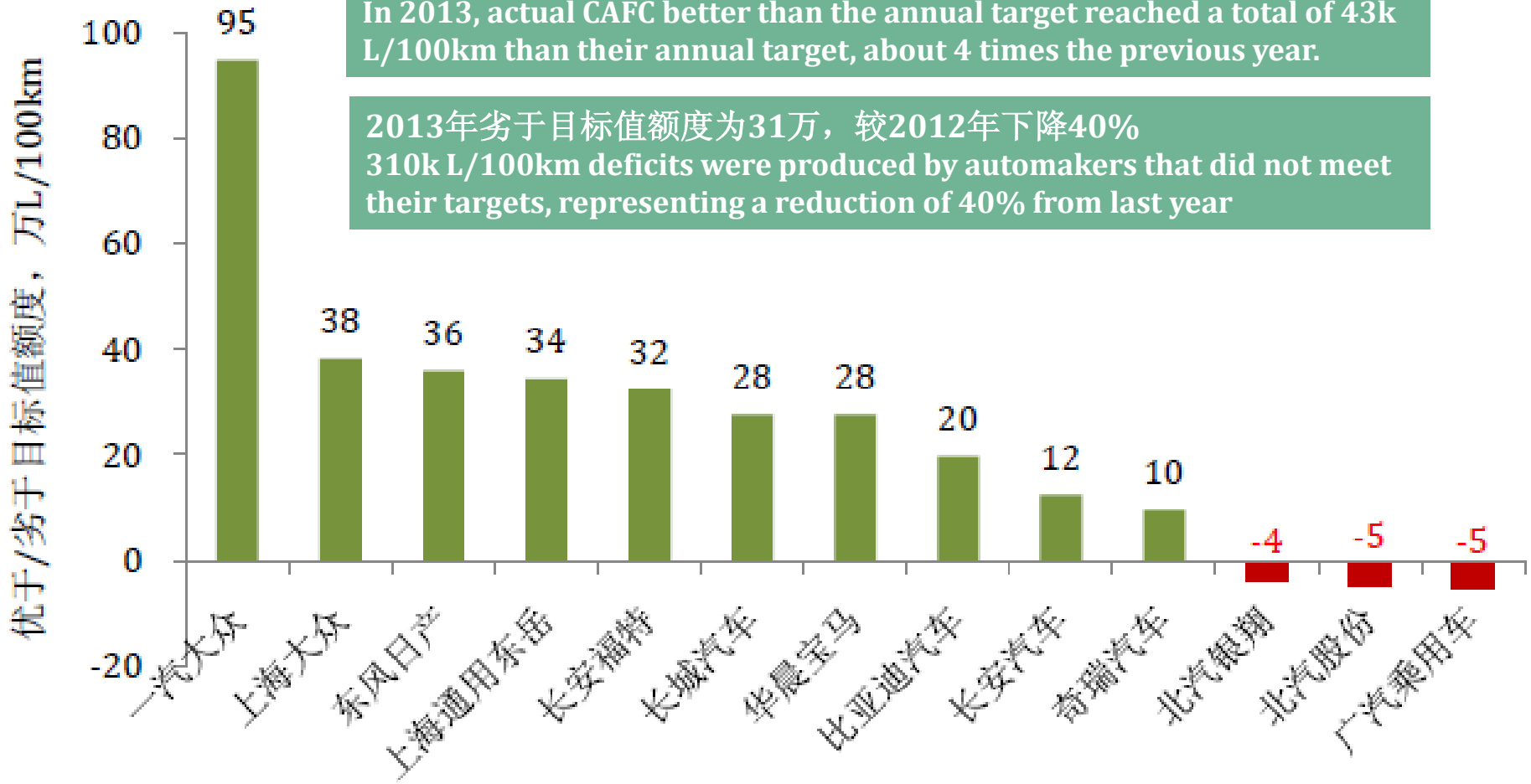


中国应在第四阶段应研究建立并推进燃料消耗量额度交易机制，应让达标企业享受红利

China is considering introducing fuel consumption credits and trade mechanisms during the Phase IV implementation stage

2013年优于目标值额度为427万，为2012年的4倍多
In 2013, actual CAFC better than the annual target reached a total of 43k L/100km than their annual target, about 4 times the previous year.

2013年劣于目标值额度为31万，较2012年下降40%
310k L/100km deficits were produced by automakers that did not meet their targets, representing a reduction of 40% from last year



总 结 Summary

1. 2013年中国乘用车企业平均燃料消耗量总体水平已达到当年目标值，实现2015年目标无压力；
The overall average corporate fuel consumption level has reached 2013 target levels and is projected to achieve the 2015 target without pressure;

2. 过去七年（2006-2013）中国燃料经济性标准实施取得了一定效果，但总体降幅仍不大；
Over the past seven years (2006-2013) China's fuel economy steered efficiency improvements, however overall FC reduction was limited;

3. 未来七年（2014-2020）中国燃料消耗量目标实施有一定挑战，需先进节能技术、新能源汽车及额度交易机制等助力；
During the next seven years (2014-2020) China's fuel consumption targets pose challenges, indicating a clear need for advanced energy-saving technologies, new energy vehicles and credit trading programs for incentivizing commercialization;

4. 新能源汽车、节能技术额度补贴给2020年的目标实施带来较大的不确定性；
New energy vehicles and energy-saving technology reliefs create uncertainties around 2020 target implementation;

5. 传统汽车节能技术引进与升级仍是确保2020年目标实现的关键。
The introduction of energy-saving technologies and traditional automotive upgrade in 2020 is still the key to ensuring achievement of objectives.

谢谢关注！

THANK YOU!

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