Legal Statement

The purpose of the information in this presentation is to guide ICA programs and provide members with information to make independent business decisions.

Antitrust Guidelines

ANTITRUST GUIDELINES
FOR
COPPER INDUSTRY TRADE ASSOCIATION MEETINGS

The following guidelines with respect to compliance with antitrust laws of the United States, Japan and European Community[1] are intended to govern the conduct of participants in copper industry trade association meetings, both at the meeting itself and in informal discussions before or after the formal meeting.

Price. Competitors should not discuss future prices (including terms of sale) of their products. There is no blanket prohibition against the mention of or reference to current or past prices but limits must be observed. Such references or mentions should occur only when necessary in connection with the development of association programs. For example, reference to a particular price level in comparing the cost of a copper product to a competing product is permitted. Whenever possible, such references should be discussed in advance with legal counsel.

Competitive Information. Competitors should not discuss the market share of a particular copper producer or copper fabricator's products. Furthermore, nothing should be said at a meeting which could be interpreted as suggesting prearranged market shares for such products or producer production levels. The overall market share of copper products may be discussed with regard to competition with non-copper products and general market acceptance.

New Products. Competitors should not encourage or discourage the introduction of a new product by another competitor or reveal a particular copper company's plans to change the production rate of an existing product or to introduce a new product. No company should disclose to another company whether it is in a position to make or market a new product. New products may be discussed in a technical manner or from the standpoints of competition with non-copper products and general market acceptance. In addition, proposed methods for and results of field and laboratory testing can be considered.

The Role of Legal Counsel. Legal counsel attends association meetings to advise association staff and other meeting attendees regarding the antitrust laws and to see that none of the matters discussed or materials distributed raise even the appearance of antitrust improprieties. During the course of a meeting, if counsel believes that the discussion is turning to a sensitive or inappropriate subject, counsel will express that belief and request that the attendees return the discussion to a less sensitive area.

A paper entitled
"Copper Industry Trade Associations and the Antitrust Laws"
is available upon request.

10/92, 5/93, 10/10

[1] Other foreign competition laws apply to International Copper Association, Ltd. (ICA)'s activities worldwide.

The Impact of China's 13th Five Year Plan (FYP) on Copper Demand

Presented by Mr. Bin Li, Jiangsu Shangshang Cable Group Co., Ltd.
on behalf of ICA and ACMR

April 2017

ACMR 北京华通人商用信息有限公司
All China Marketing Research Co., Ltd.

Jiangsu Shangshang Cable Group Co., Ltd.

Jiangsu Shangshang Cable Group Co., Ltd. was founded in 1967 (with 50-year history), only focused on the design and production of wires and cables, and covers an area of 6,670,000 sq. ft .
All subsidiaries locate in Liyang City, Jiangsu Province, China.

Performance Data

Output value and sales volume is increasing year by year.

Copper use was >200kt in 2016.

Personnel Team

A staff of 3,400 employees.

Product Scope

Products involve various fields, such as clean energy, power transmission and distribution, ports and ships, construction project, industrial manufacturing, airports, coal mines, rail transportation etc.

13th FYP –National and Industrial Plans

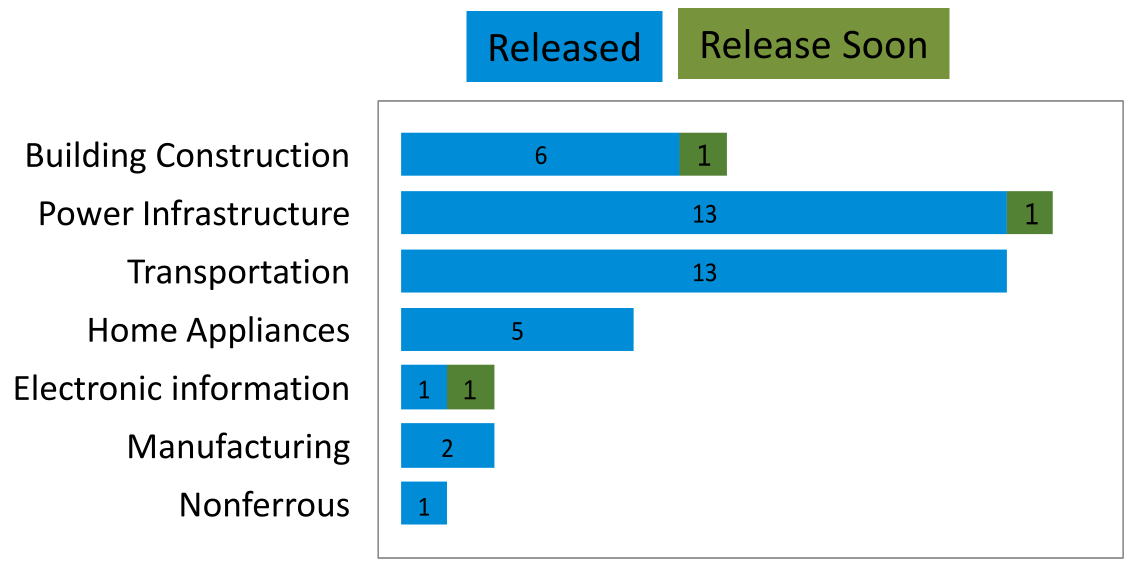
13th FYP → Copper Usage → Summary

13th FYP

- **2014 April** – Announcement on 13th FYP compilation
- **2015 July** – Confirm the timeline of release of 13th FYP proposal
- **2015 October** – 13th FYP proposal was released and published
- **2016 March** – 13th FYP was released and published
- **2016 June to Present** – Industry 13th FYP released gradually

Updates on Industrial 13th FYP

Total：44
Released：41
Release Soon：3

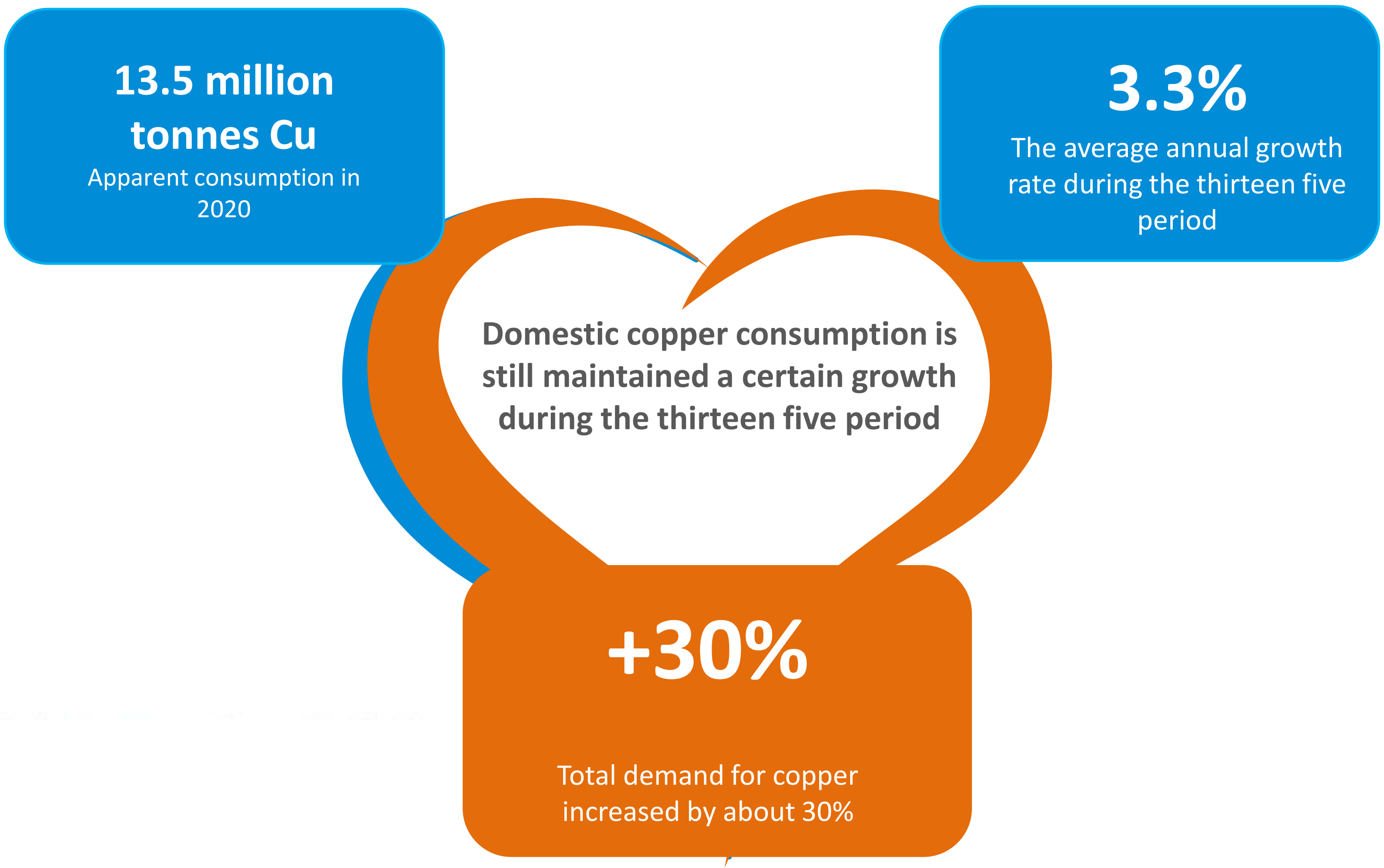


As of Jan 2017

Interpretation of China's 13th FYP

13th FYP | Copper Usage | Summary

The development plan of the nonferrous metal industry (2016-2020)



Impacts on Select Copper End Use Markets & Demand Forecasts

13th FYP | **Copper Usage** | Summary

6 Major End Use Sectors
Representing about 60% of the China Market

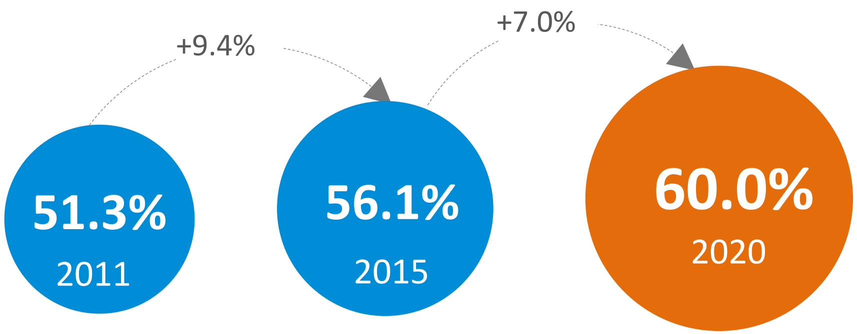
- **Building Construction**
  - Electrical*
  - Non Electrical**
- **Power Infrastructure**
  - Power Grid
  - Power Generation
- **Transportation**
  - Auto/Trains /Ships
  - Infrastructure
  - NEV
  - NEV Charging facilities
- **Home Appliances**
  - Room Air conditioners
  - Refrigerators
  - Washing machines
  - Televisions
- **Manufacturing**
  - Industrial Motors
- **Electronic information**
  - Mobile
  - Computer

**Electrical includes power cable, building wire, transformer*
***Non-electrical includes HVAC, hardware, water/gas*

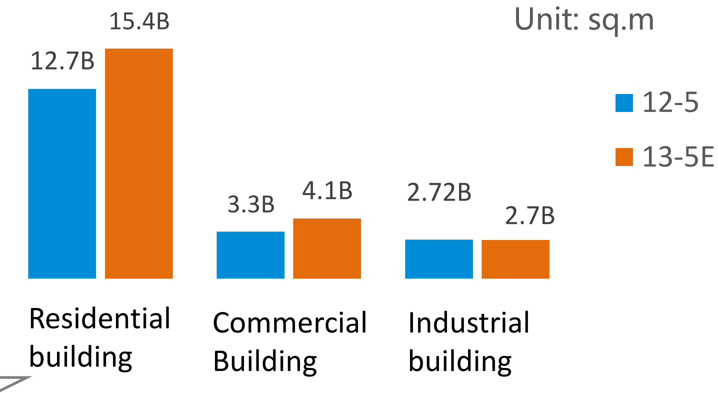
Building Construction

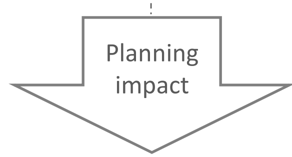
13th FYP | **Copper Usage** | **Summary**

China's Urbanization Ratio

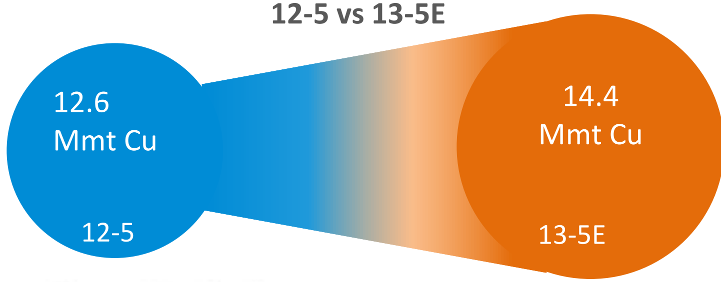


Comparisons on Completed Floor Space by Type of Building
12-5 vs 13-5E

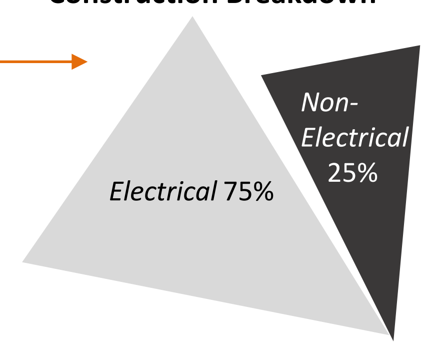




Aggregated Copper Demand - Building Construction
12-5 vs 13-5E



13-5E Copper Demand – Building Construction Breakdown



**Electrical includes power cable, building wire, transformer*
***Non-electrical includes HVAC, hardware, water/gas*

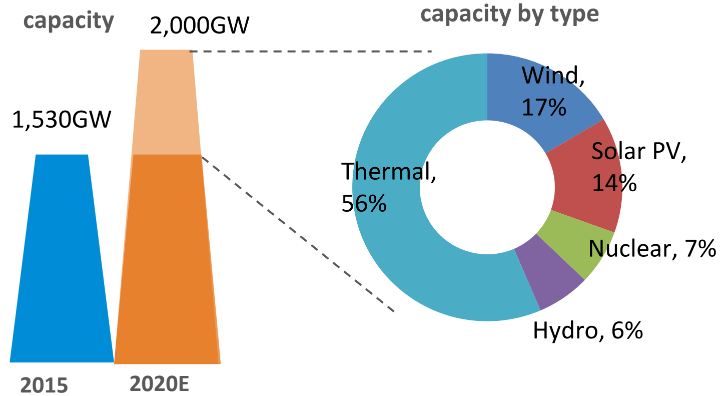
Source： NBS, ACMR

Power Infrastructure

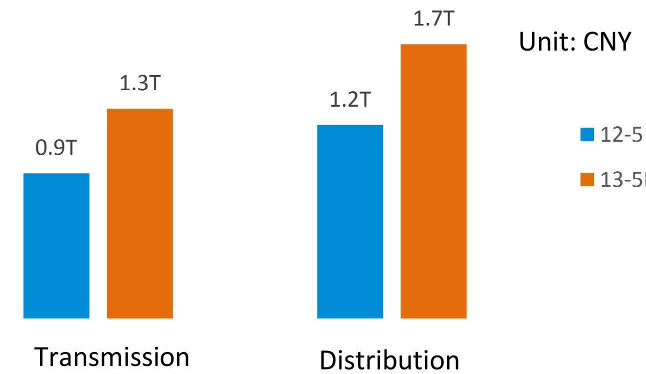
13th FYP | Copper Usage | Summary

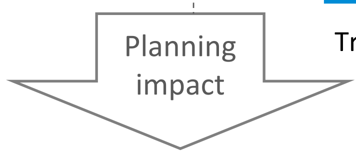
Accumulative Installed capacity

The 13th five-year new capacity by type

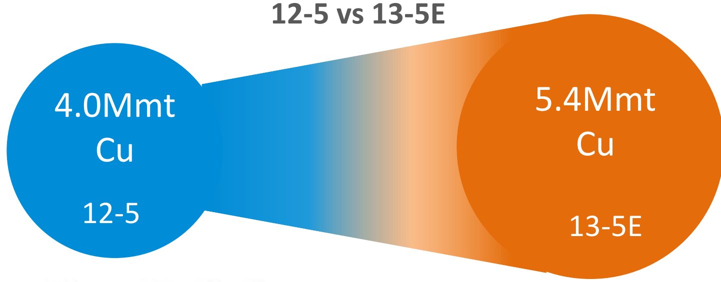


Power Grid Investment

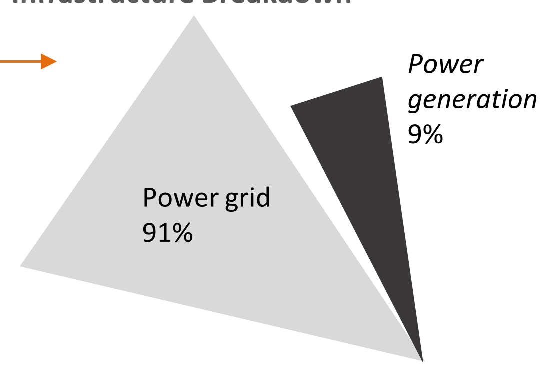




Aggregated Copper Demand – Power Infrastructure 12-5 vs 13-5E



13-5E Copper Demand-Power Infrastructure Breakdown



**Power generation includes wind and solar PV*

Source： NEA, ACMR

Transportation

13th FYP | Copper Usage | Summary

Newly Constructed Transport Infrastructure 12-5 vs 13-5E

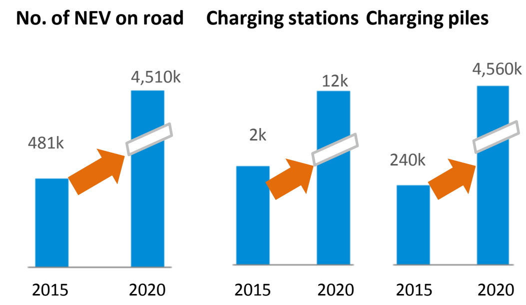
Unit: 000’ km

Type	12-5	13-5E
Road	562	430
Railway	30	29
Urban transit	2	3

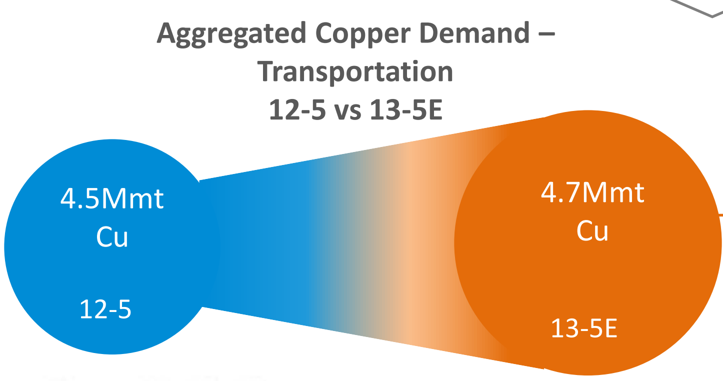
Conventional Transports Comparisons 12-5 vs 13-5E

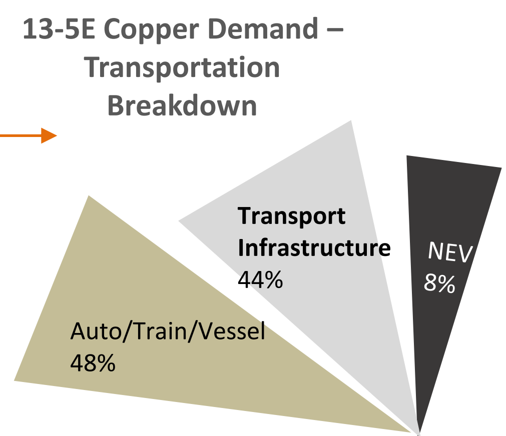
	12-5	13-5E
Car	104mln	122mln
Train	286k	178k
Vessel	330mln	230mln

China’s NEV Market



Planning impact

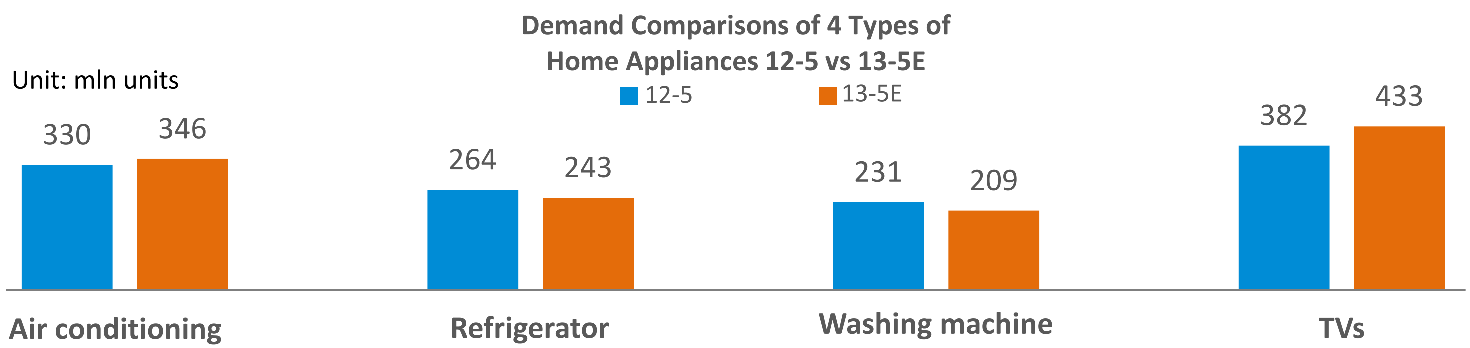


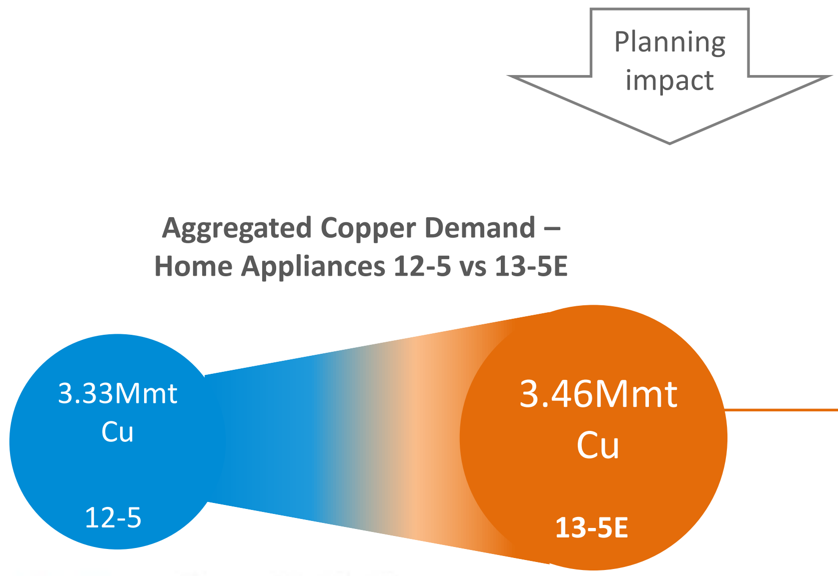


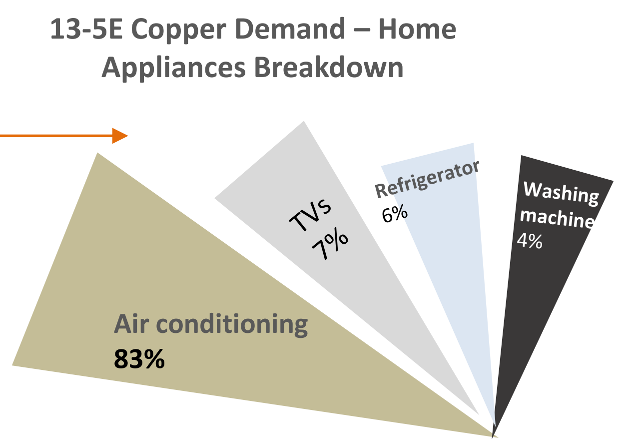
Source： MOT, CAAM, ACMR

Home Appliances

13th FYP | Copper Usage | Summary





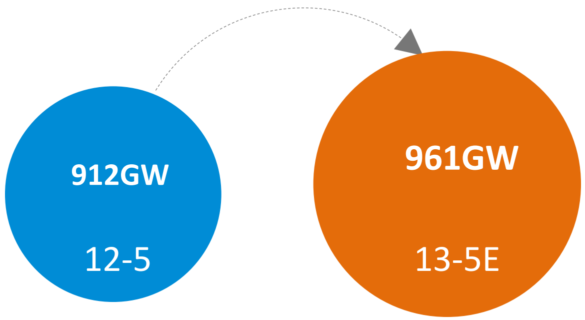


Source： NBS, China IOL, ACMR

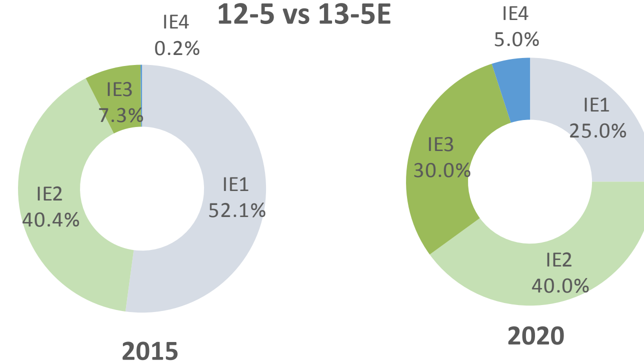
Manufacturing / Industrial Motors

13th FYP | Copper Usage | Summary

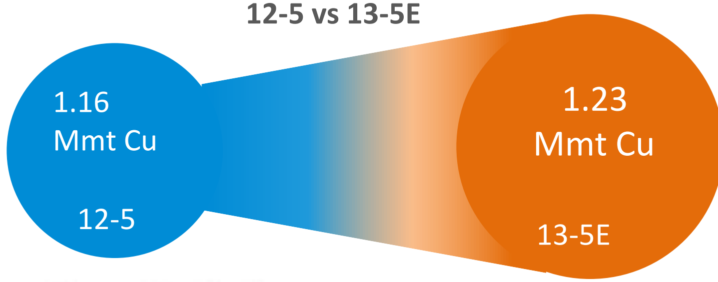
Demand Comparisons of Industrial motors
12-5 vs 13-5E



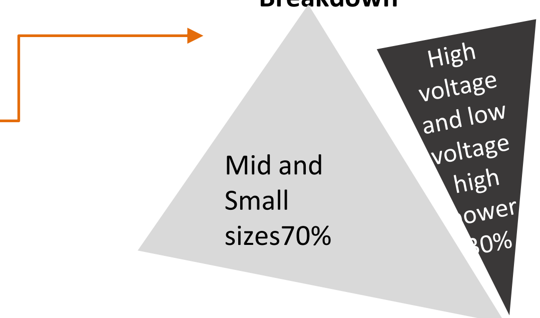
Energy Efficiency Grade Comparisons
12-5 vs 13-5E



Aggregated Copper Demand - Manufacturing (Industrial Motors)
12-5 vs 13-5E



13-5E Copper Demand – Manufacturing (Industrial Motors) Breakdown



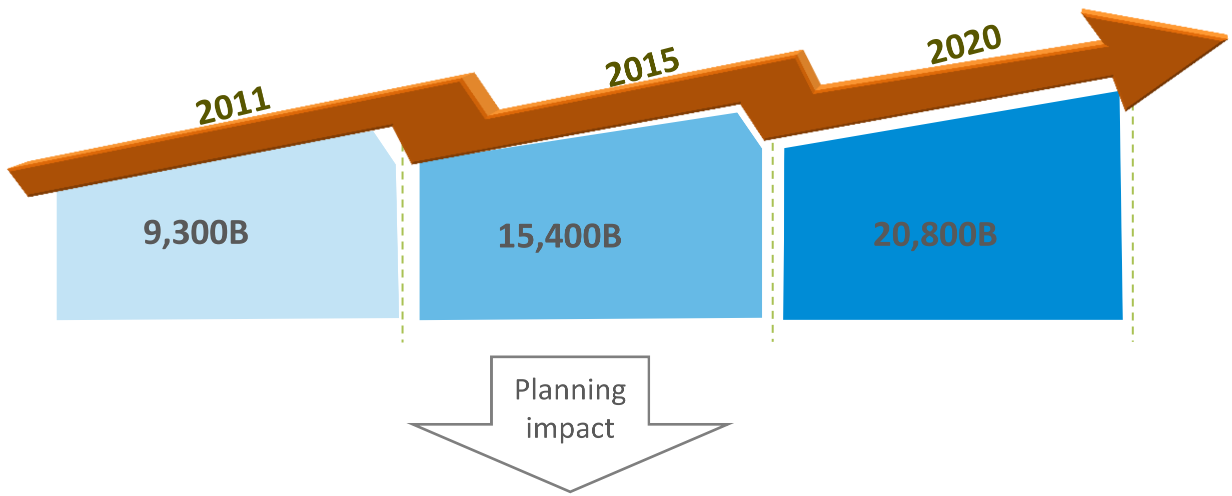
Source： ACMR

Electronic Information

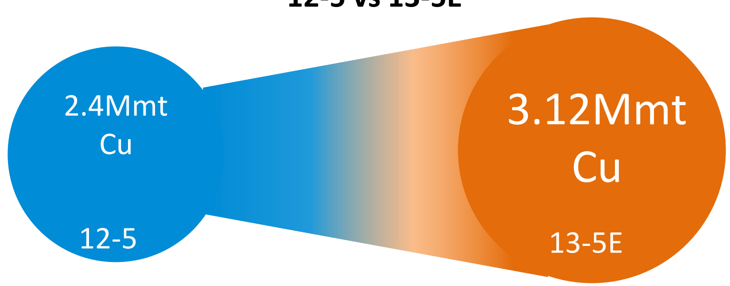
13th FYP | Copper Usage | Summary

Sales of Electronic information
12-5 vs 13-5E

Unit：RMB



Demand Comparisons of Electronic information
12-5 vs 13-5E

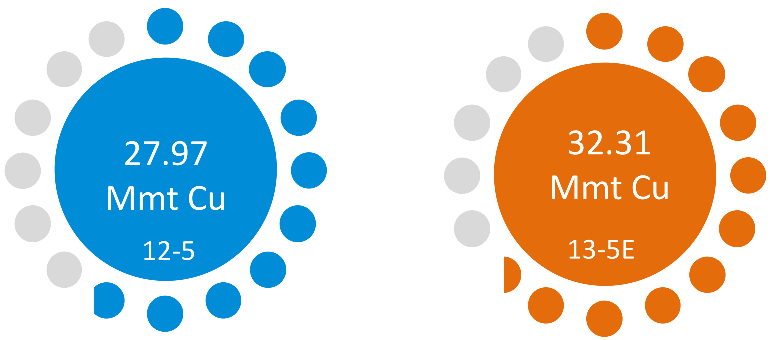


Source： ACMR

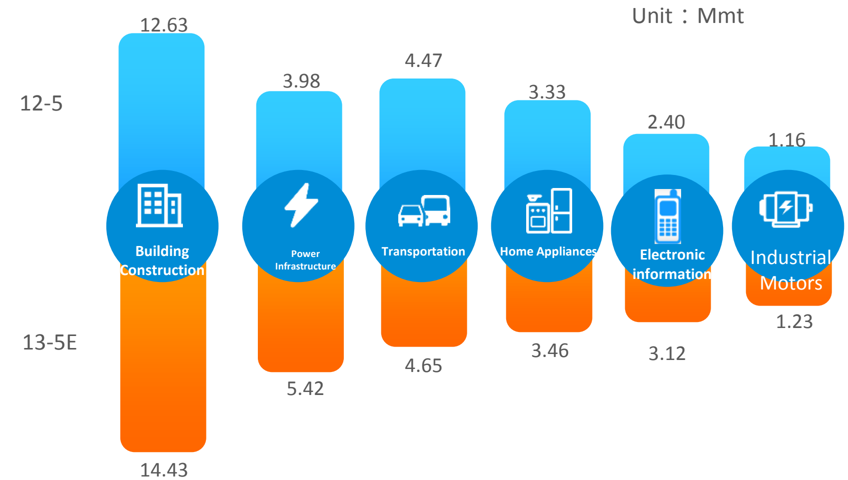
Summary – Aggregated Copper Demand on 6 Selected End Use Markets between 12-5 & 13-5E

13th FYP | Copper Usage | Summary

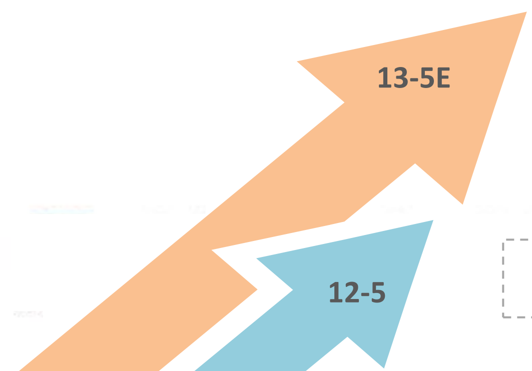
Aggregated Copper Demand 12-5 vs 13-5E



– Aggregated Copper Demand on 6 Selected End Use Markets between 12-5 & 13-5E



ACMR Forecast



- The copper demand of 6 copper end use markets is about 32.3 million tonnes
- It is estimated that over 15.6% growth for the copper demand

Note: The copper demand calculation results are based only on the study of the six industries and do not take into account any changes of copper density.

Source： ACMR