

Specific Impacts of China's 13th FYP on 5 Selected Copper End Use Markets

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Legal Statement

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

1. National 13th FYP – Outline of national 13th Five Year Plan of China
2. NBS - National Bureau of Statistics of China
3. NEA - National Energy Administration
4. MOT – Ministry of Transport of the People’s Republic of China
5. CAAM – China Association of Automobile Manufacturers
6. China IOL – China Industry Online
7. ACMR – All China Marketing Research Co., Ltd.

Antitrust Statement

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 Community¹ 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

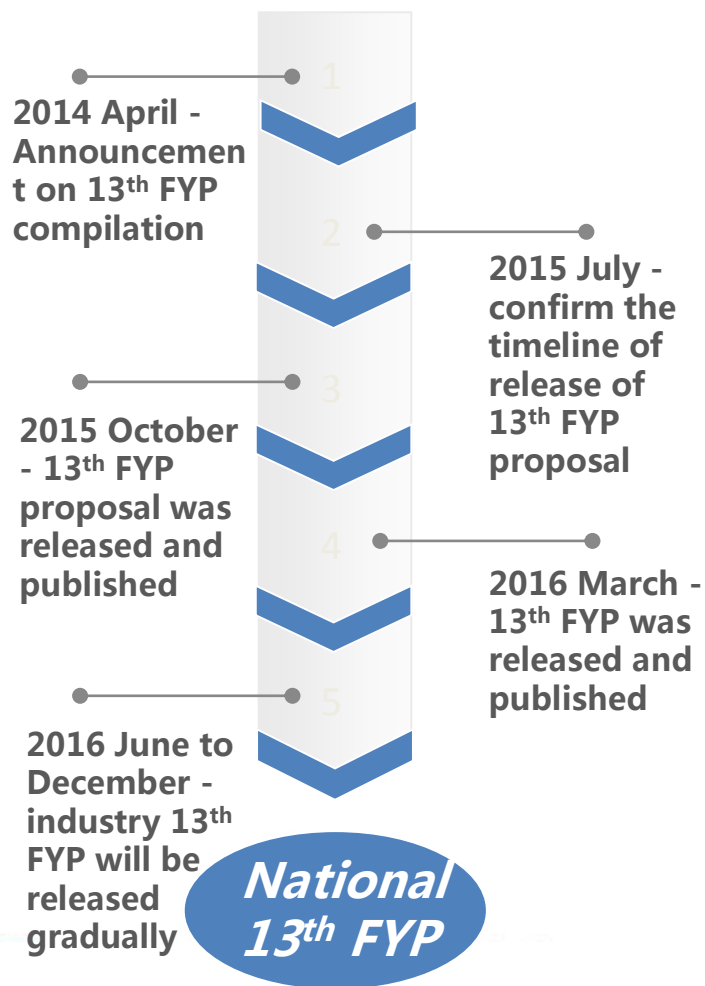
¹ Other foreign competition laws apply to International Copper Association, Ltd. (ICA)'s activities worldwide.

Agenda

- ✓ **Updates on China' s 13th FYP**
- ✓ **Impacts on 5 Selected Copper End Use Markets & Copper Usage Forecast**
- ✓ **Summary**

Updates on China' s 13th FYP – National and Industrial Plans

Updates on Industrial 13th FYP*



| | Total | Released | Release Soon |
|-----------------------|-----------|-----------|--------------|
| Building Construction | 7 | 6 | 1 |
| Power Infrastructure | 12 | 9 | 3 |
| Transportation | 12 | 9 | 3 |
| Home Appliances | 5 | 4 | 1 |
| Manufacturing | 2 | 1 | 1 |
| Nonferrous | 1 | 1 | 0 |
| Total | 39 | 30 | 9 |

*By the end of Nov 2016

Updates on China' s 13th FYP – Planned Achievements

Planned Achievements for 13th Five Year Period



**GDP Growth
>6.5%**



**Double GDP in
CNY by the end
of 2020**



**Double personal
income by the
end of 2020**

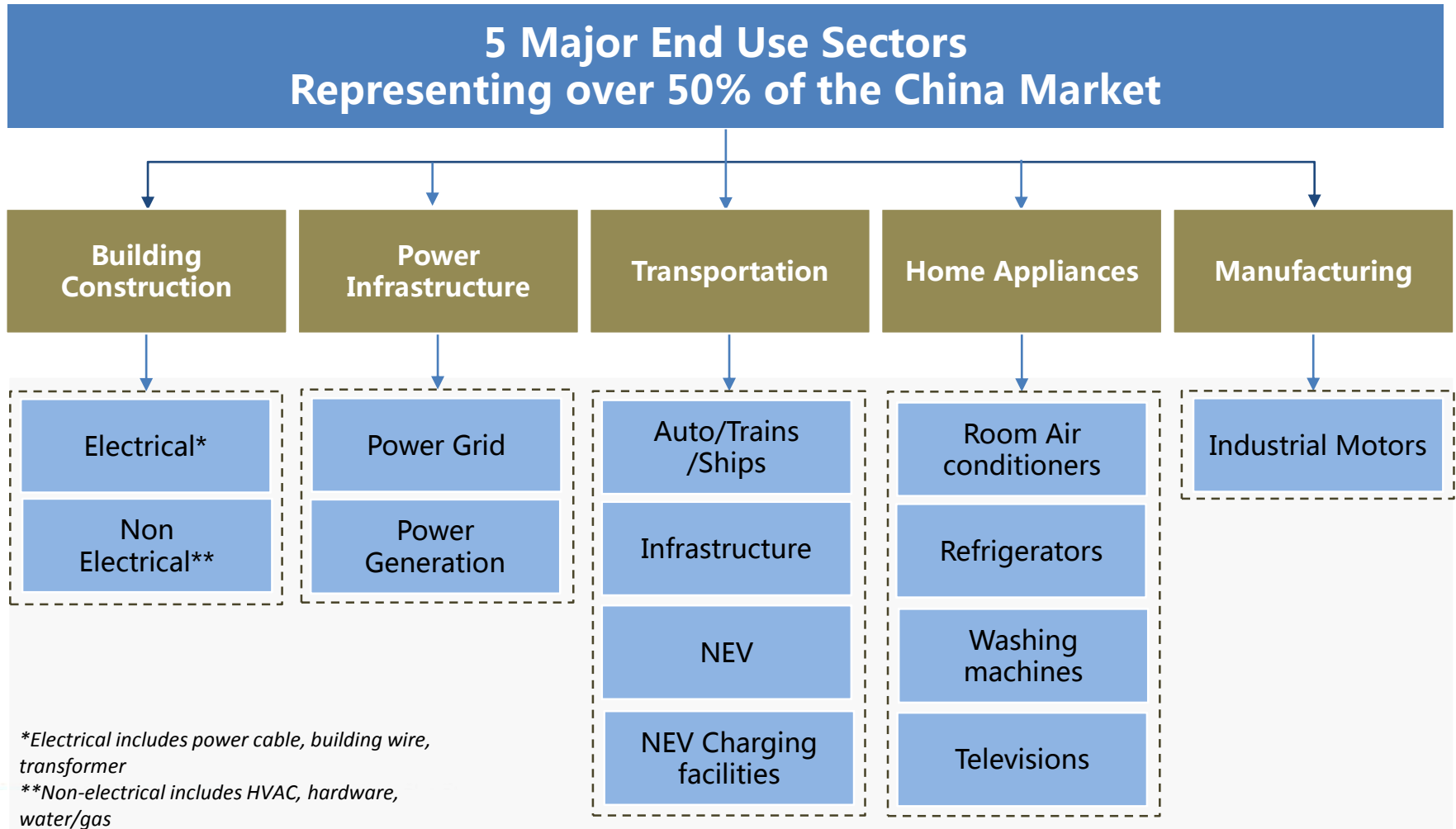
Updates on China' s 13th FYP – Key Takeaways

- ✓ Messages contained in 13th FYP are mostly positive to copper.
- ✓ This implies growth opportunities for copper in the future.
- ✓ Over 14% growth for the copper demand from 5 selected end use markets between 12th FYP and 13th FYP timeframe.

Agenda

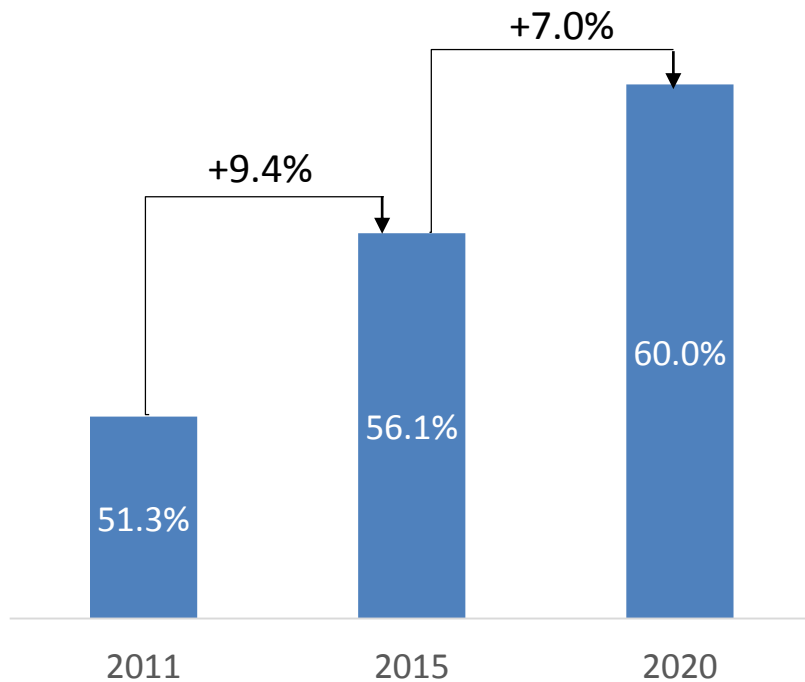
- ✓ **Updates on China' s 13th FYP**
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Impacts on 5 Selected Copper End Use Markets & Copper Usage Forecast – Schematic



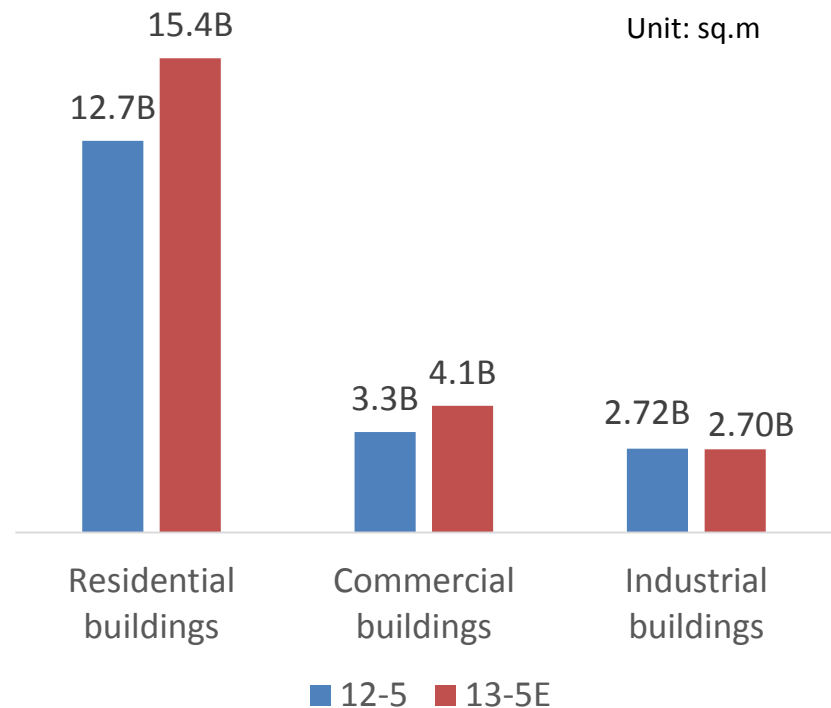
Impacts on 5 Selected Copper End Use Markets & Copper Usage Forecast – Building Construction

China's Urbanization Ratio 2011, 2015 and 2020



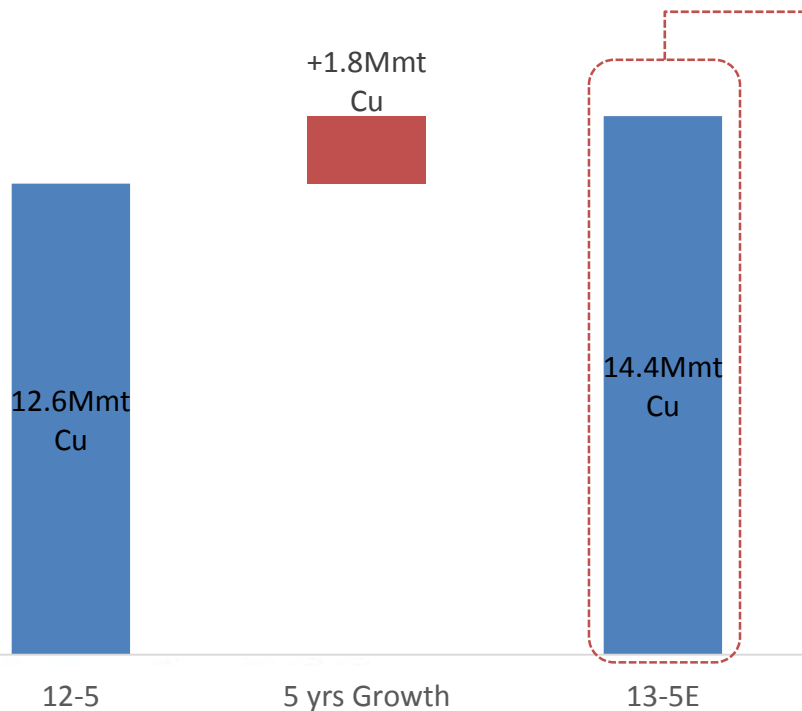
Source : NBS, ACMR

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

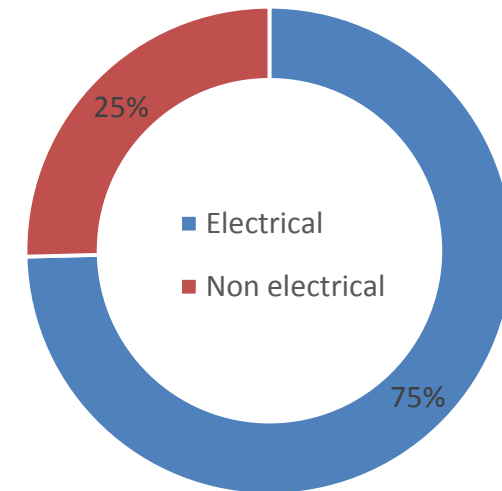


Impacts on 5 Selected Copper End Use Markets & Copper Usage Forecast – Building Construction

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



13-5E Copper Demand – Building Construction Breakdown

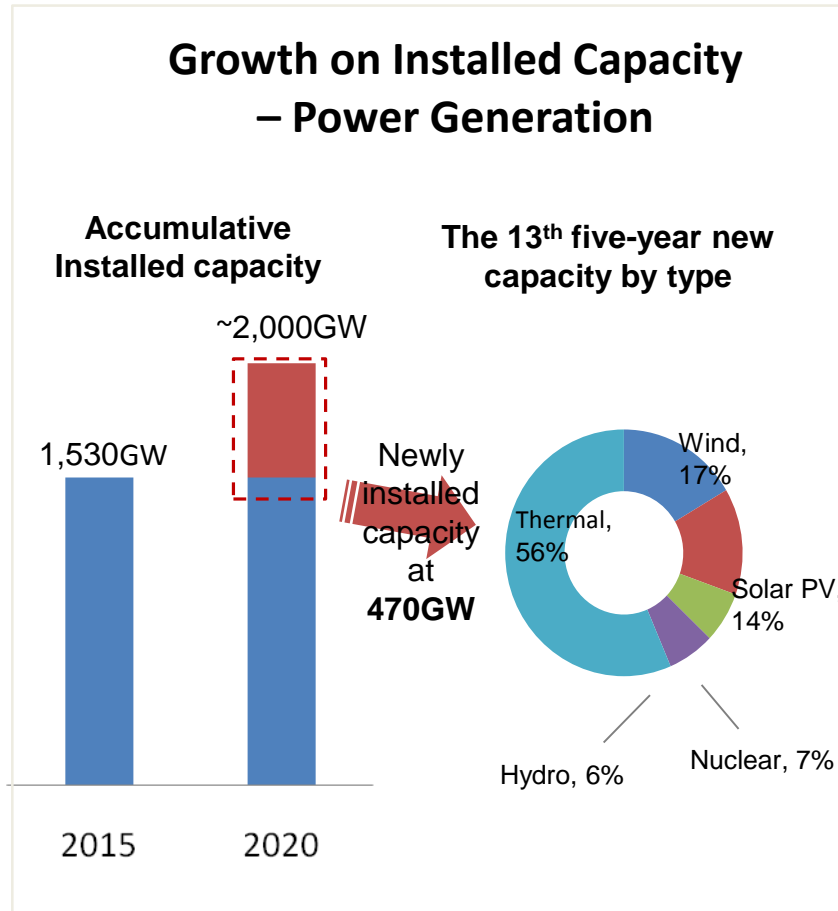


**Electrical includes power cable, building wire, transformer*

***Non-electrical includes HVAC, hardware, water/gas*

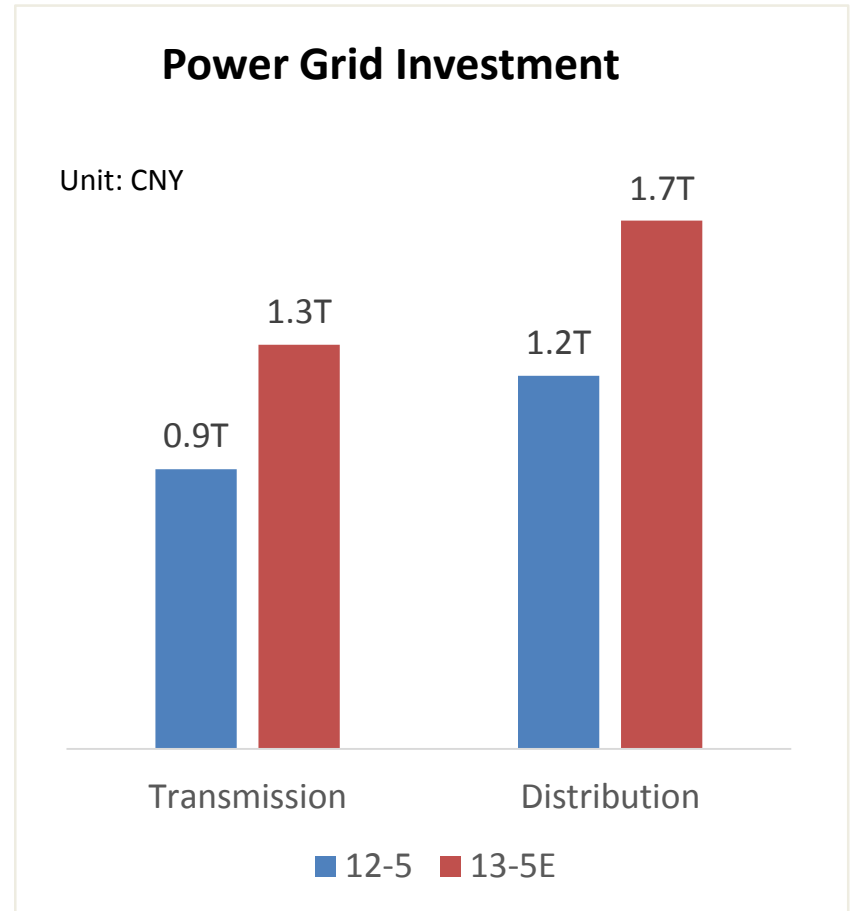
Impacts on 5 Selected Copper End Use Markets & Copper Usage Forecast – Power Infrastructure

Growth on Installed Capacity – Power Generation



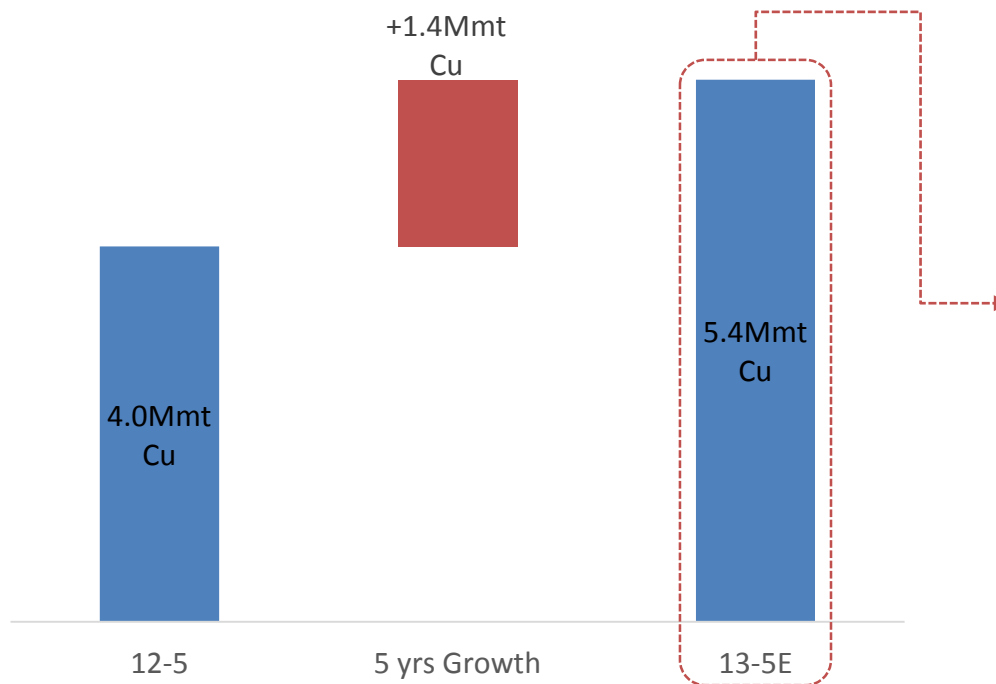
Source : NEA, ACMR

Power Grid Investment

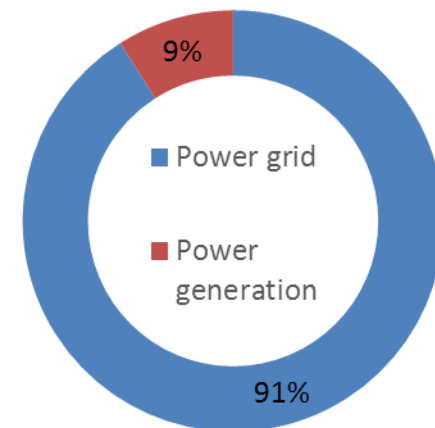


Impacts on 5 Selected Copper End Use Markets & Copper Usage Forecast – Power Infrastructure

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



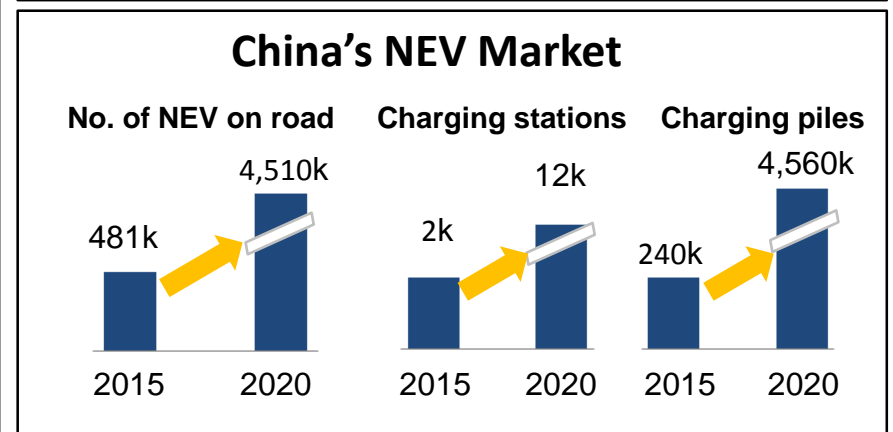
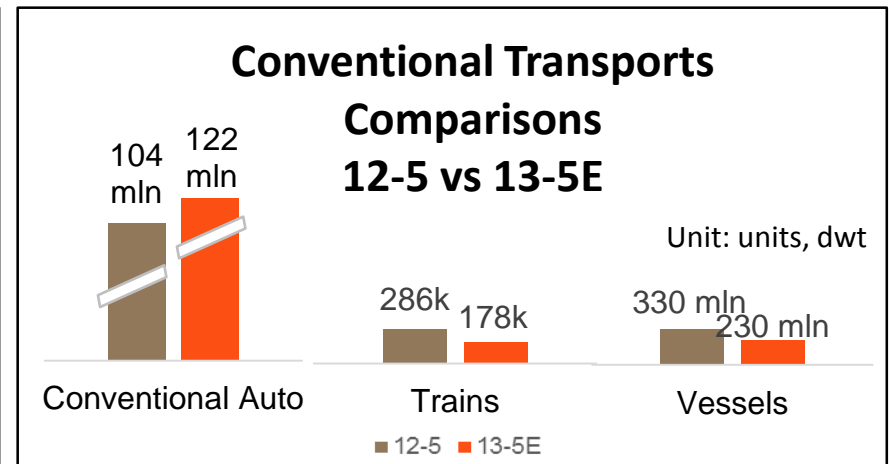
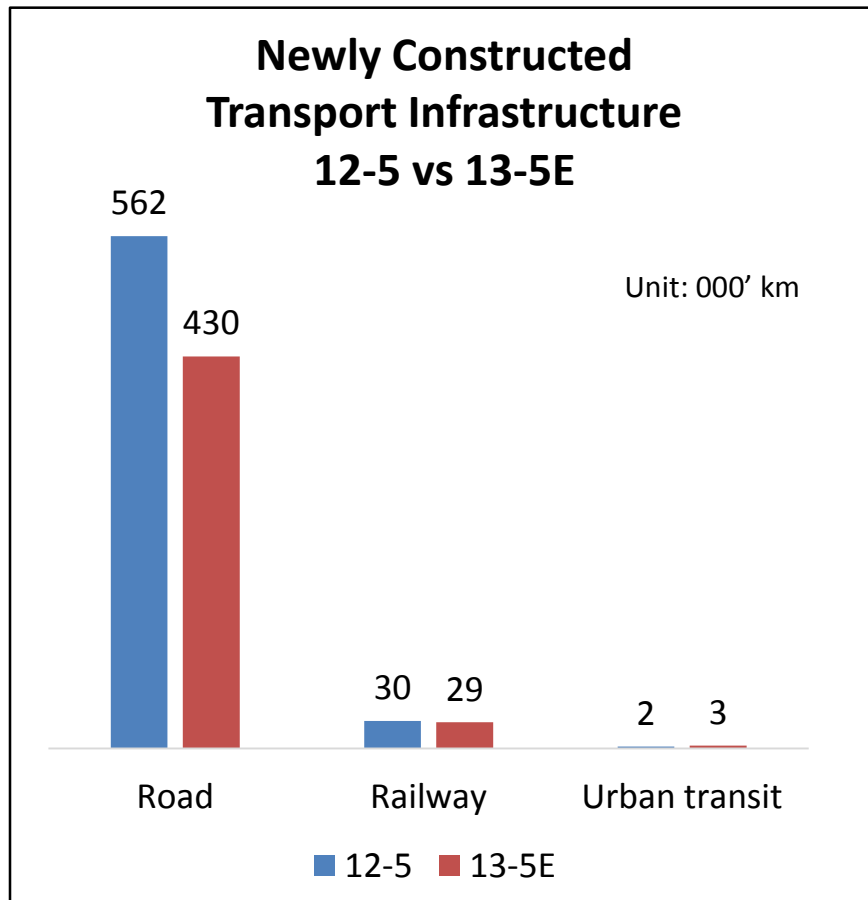
13-5E Copper Demand – Power Infrastructure Breakdown



**Power generation includes wind and solar PV*

Source : ACMR

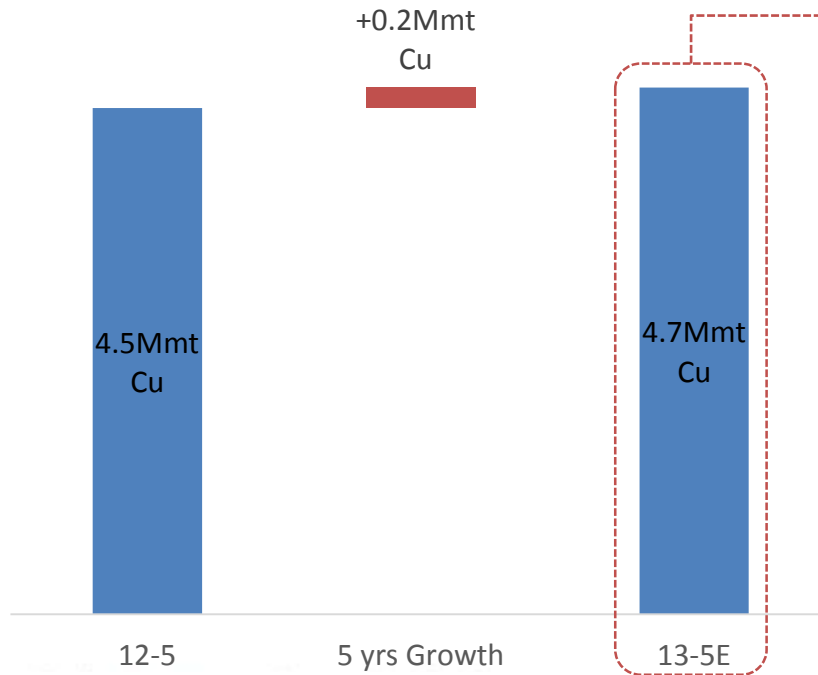
Impacts on 5 Selected Copper End Use Markets & Copper Usage Forecast – Transportation



Source : MOT, CAAM, ACMR

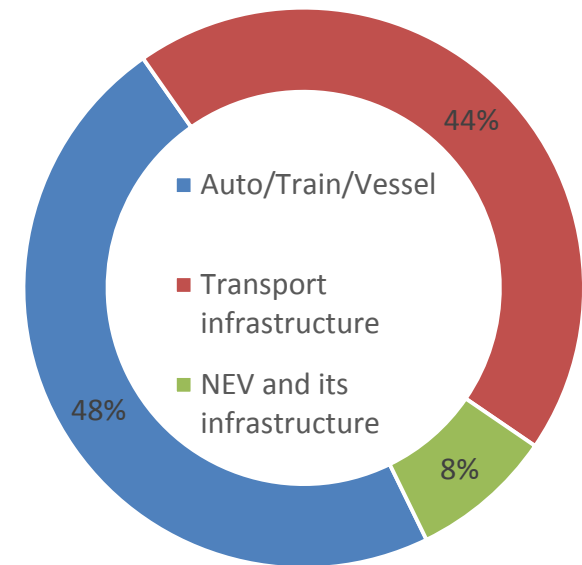
Impacts on 5 Selected Copper End Use Markets & Copper Usage Forecast – Transportation

Aggregated Copper Demand – Transportation 12-5 vs 13-5E



Source : ACMR

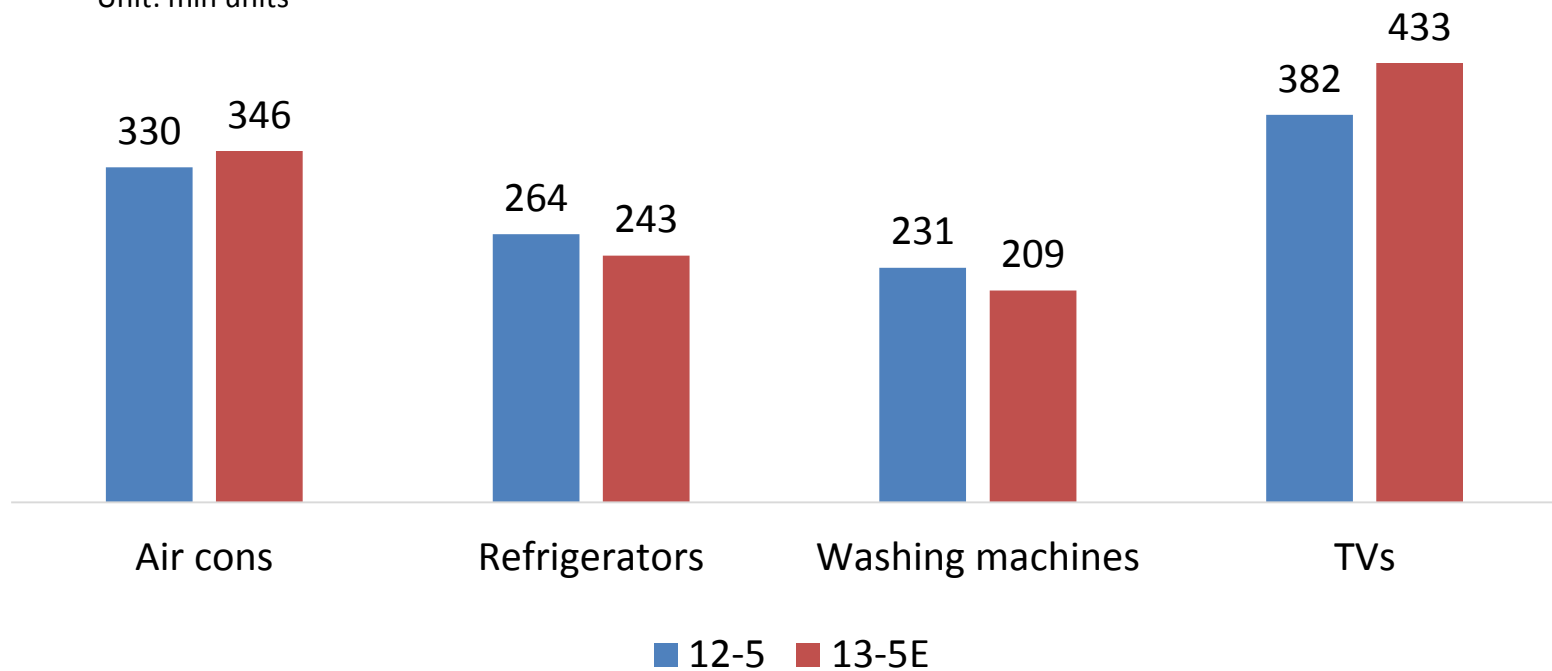
13-5E Copper Demand – Transportation Breakdown



Impacts on 5 Selected Copper End Use Markets & Copper Usage Forecast – Home Appliances

Demand Comparisons of 4 Types of Home Appliances 12-5 vs 13-5E

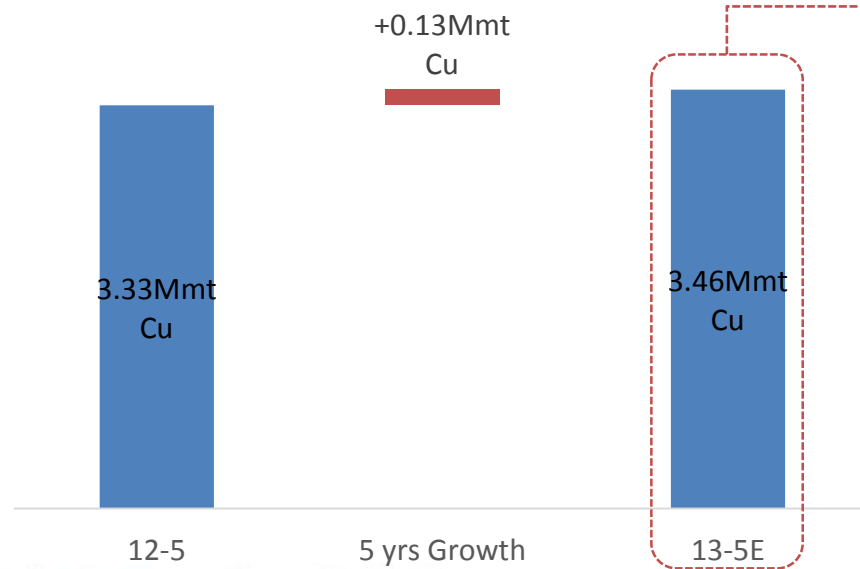
Unit: mln units



Source : NBS, China IOL

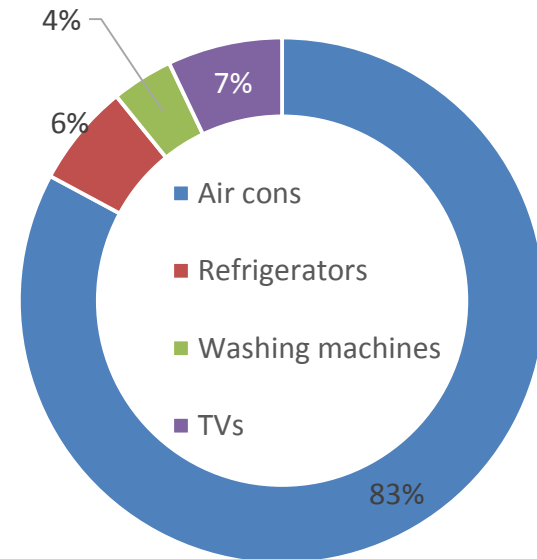
Impacts on 5 Selected Copper End Use Markets & Copper Usage Forecast – Home Appliances

Aggregated Copper Demand – Home Appliances 12-5 vs 13-5E



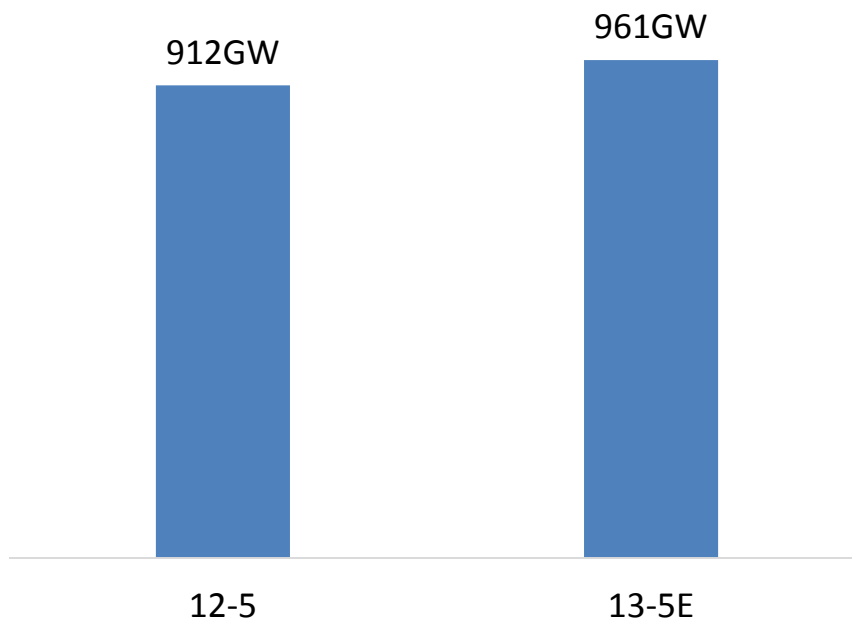
Source : ACMR

13-5E Copper Demand – Home Appliances Breakdown



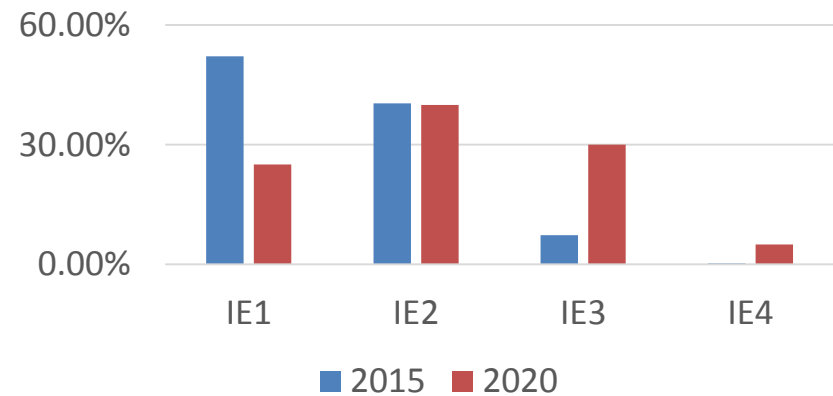
Impacts on 5 Selected Copper End Use Markets & Copper Usage Forecast – Manufacturing

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



Source : ACMR

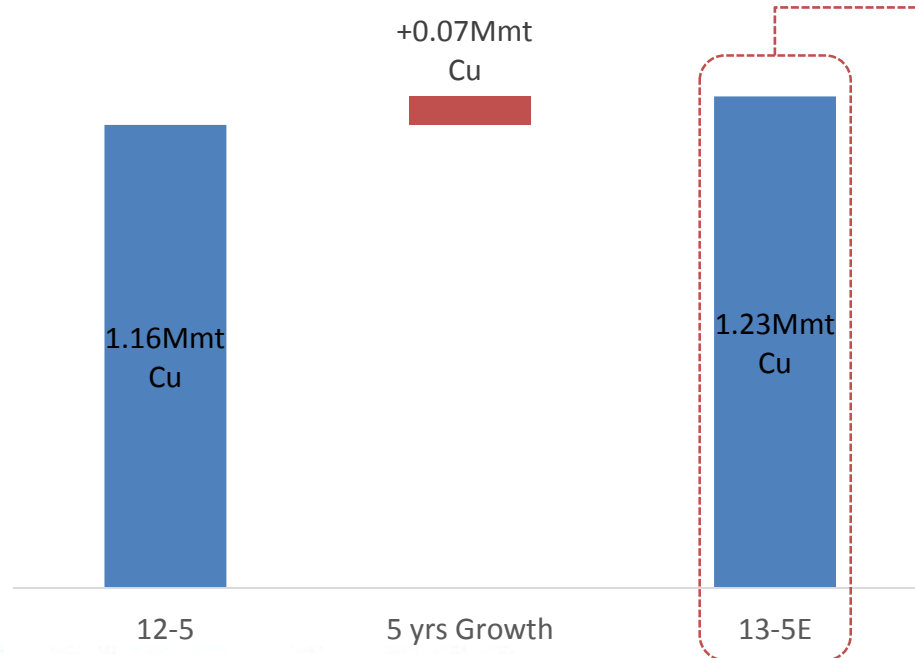
**Energy Efficiency Grade Comparisons
12-5 vs 13-5E**



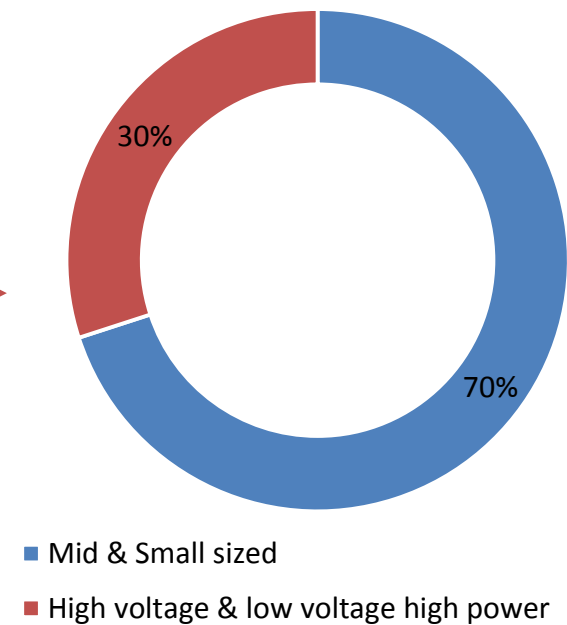
- High efficiency promotion in manufacturing sector will drive industrial motors market over the next five years.

Impacts on 5 Selected Copper End Use Markets & Copper Usage Forecast – Manufacturing

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



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

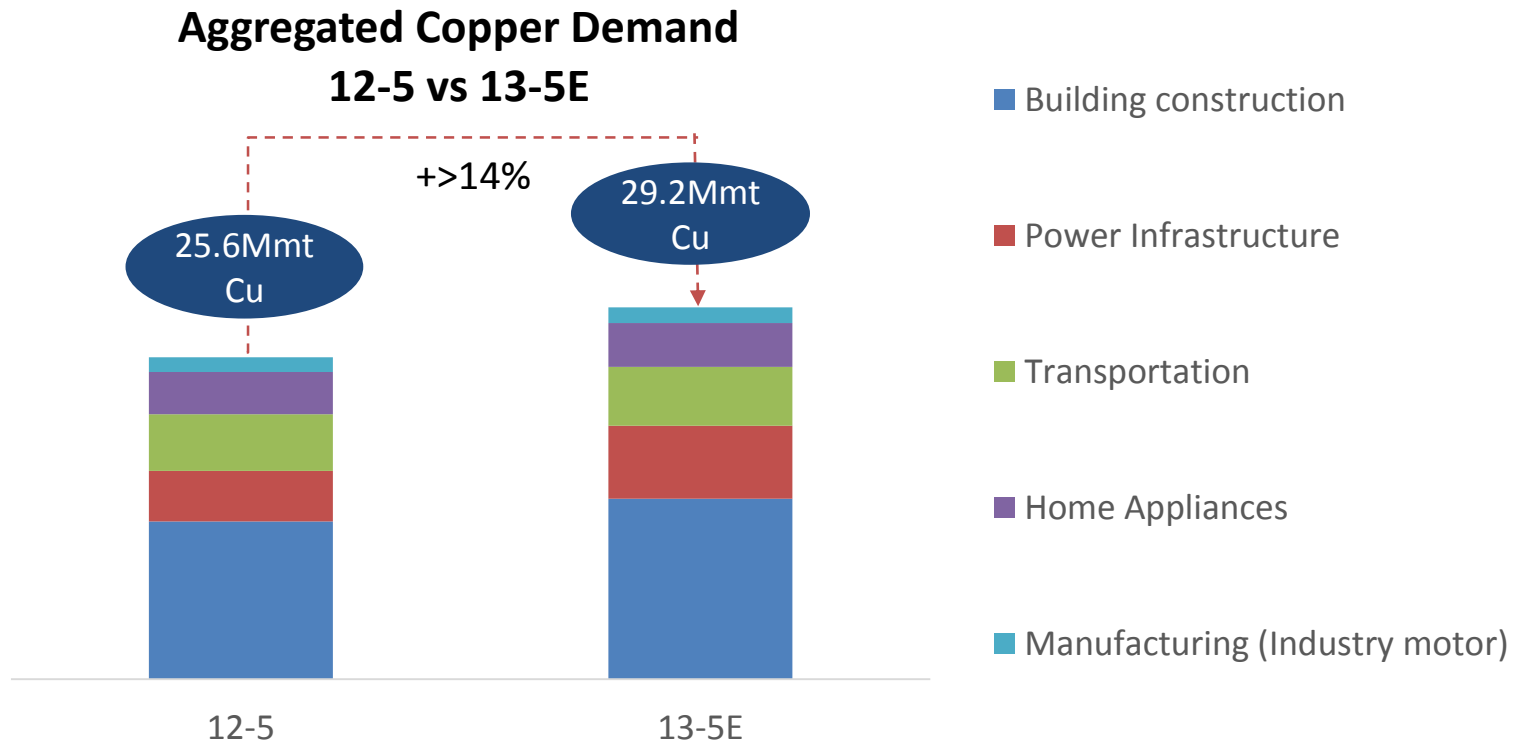


Source : ACMR

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- ✓ **Summary**

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



- It is estimated that over 14% growth for the copper demand between 12th FYP and 13th FYP timeframe.

Source : ACMR



Thanks !

For more information please contact:
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One-Stop Shop for Business Information Needs in China