

MULTIPLE BENEFITS AND DRIVERS OF ENERGY EFFICIENCY



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Apurva Chaturvedi is currently working as Senior Clean Energy Specialist in USAID/India. She has over 12 years of experience in clean energy and climate change sector. She has designed and managed several clean energy programs at USAID. Her area of expertise is program design & management. She is currently leading the energy efficiency (including building efficiency) and smart grids portfolio of USAID's clean energy program in India. She also worked as Project Manager-Climate Change at British Council, India. She has done her Masters in Microbiology and a Post Graduate Diploma in Intellectual Property Rights.

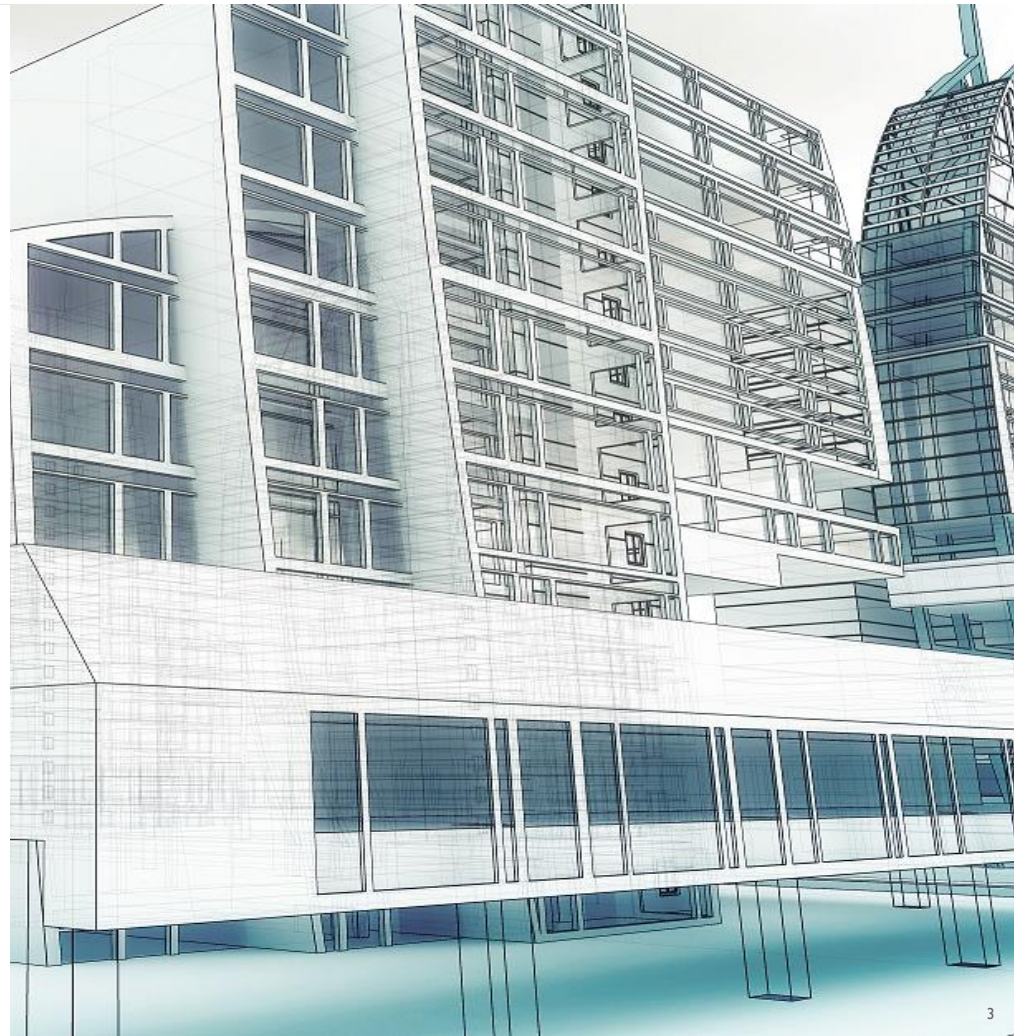


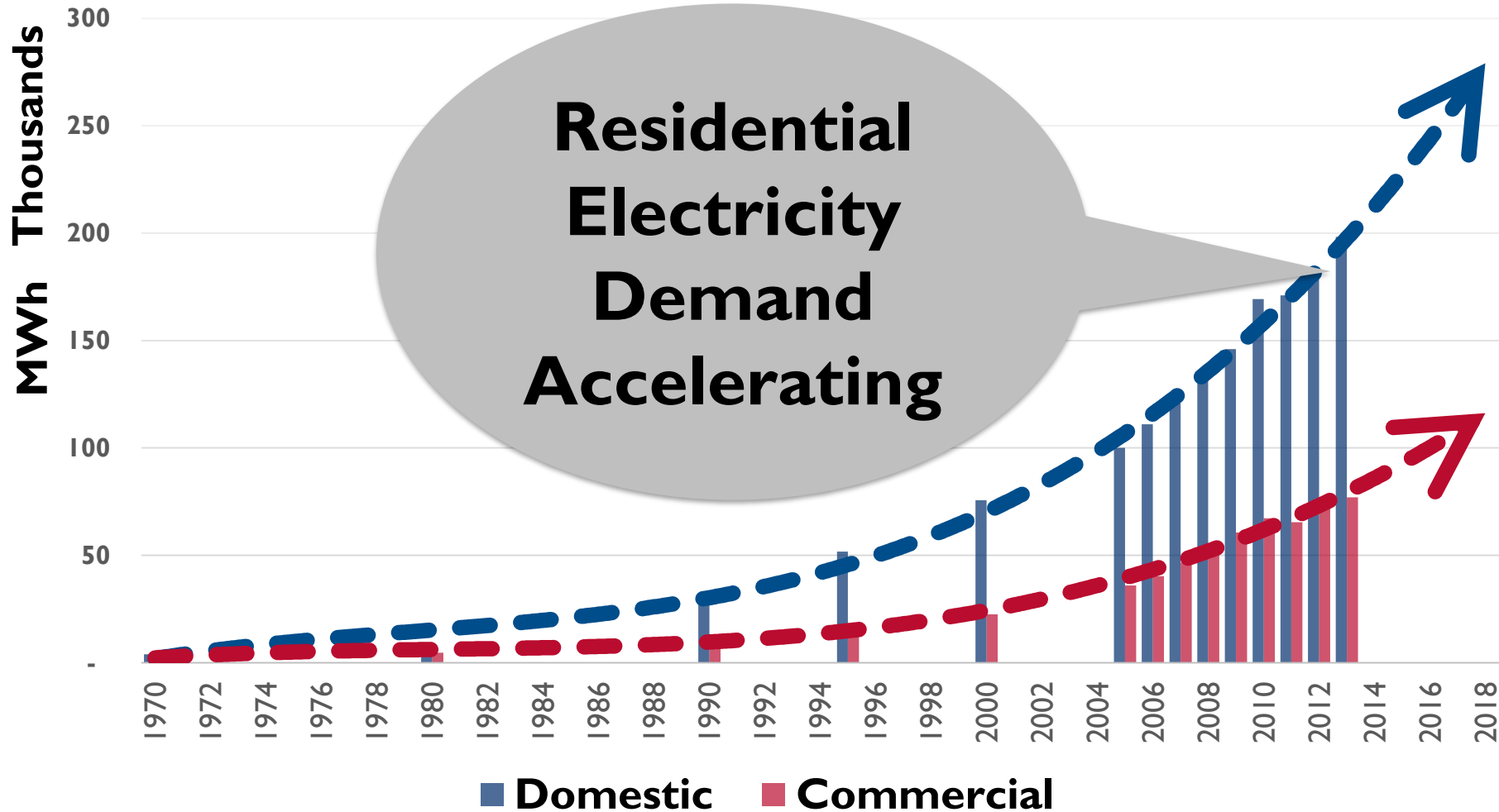
— Market Transformation for Super Efficient Air-Conditioners

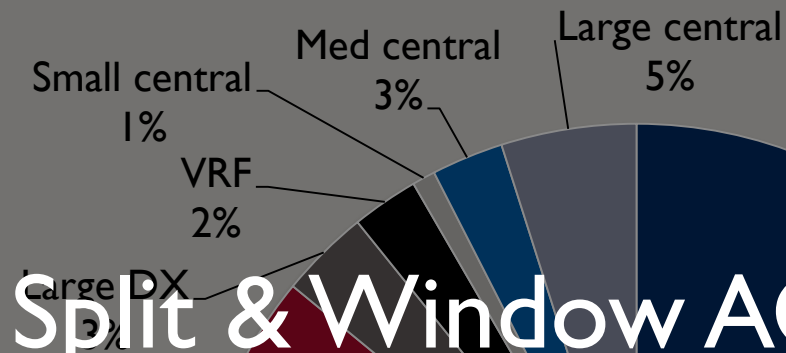
***Presented by
Apurva Chaturvedi, USAID/India***

June 7, 2017

Buildings
&
Air-conditioning
**India's Next
Energy
Challenge**



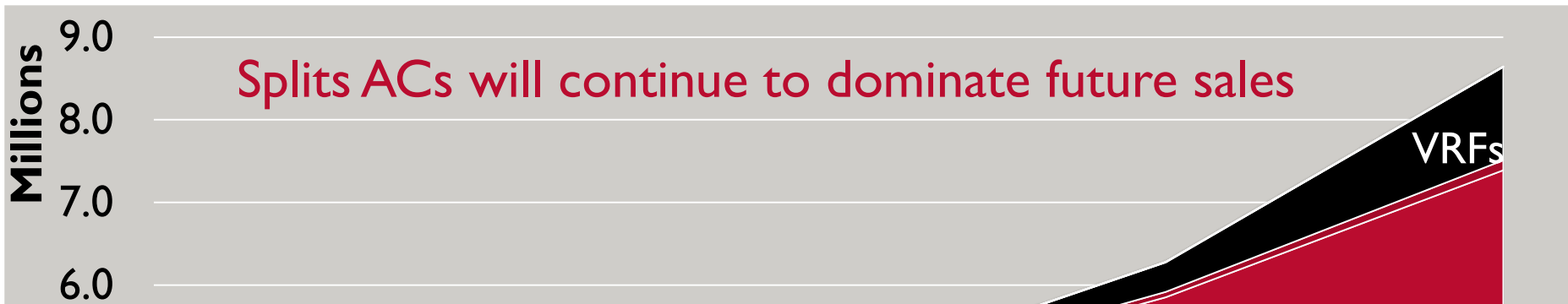




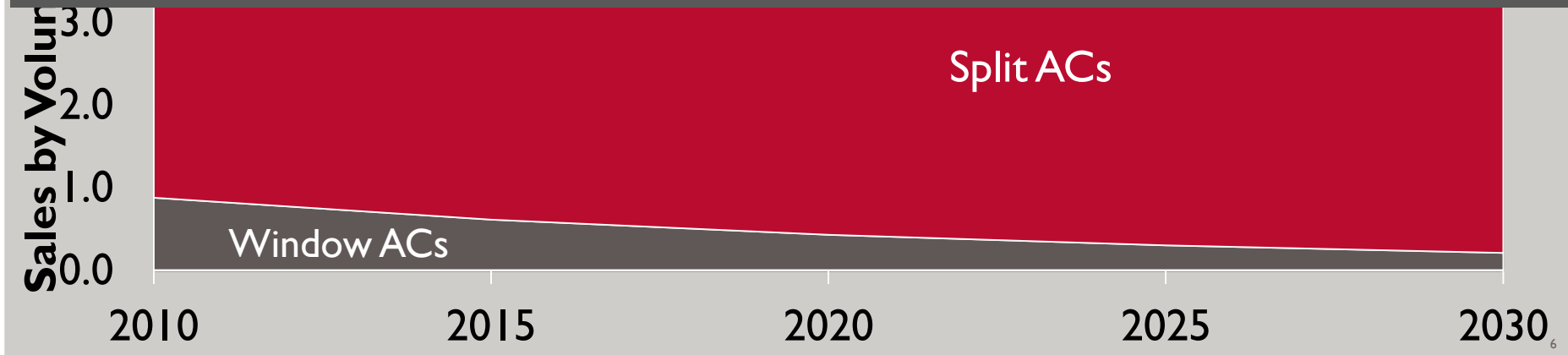
Small ACs
dominate the sales

Split & Window ACs > 85% of the market

Potential for doubling the energy efficiency



India's Air Conditioner Market is projected to grow at a CAGR of 10.2% during 2015-21



Is there a business case for super-efficient ACs?

BEE's AC S&L program:
created a consumer demand for energy efficiency

5-Star rated ACs sales is increasing:
2016 is expected to have over 25% share of 5-Star sales

Consumer price is a factor of demand and competition

Consumers recognize energy efficiency and are willing to pay

Is there a business case for super-efficient ACs?

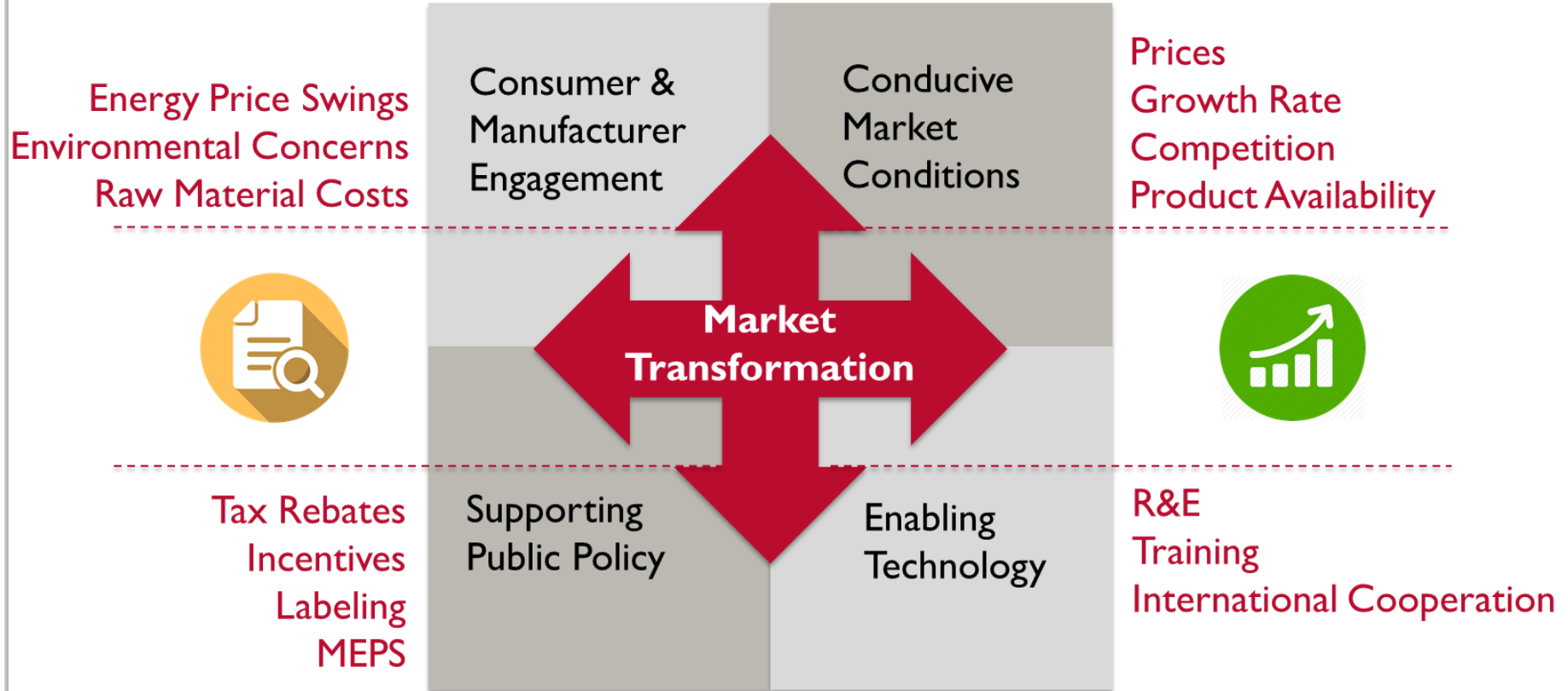


YES



With several fine prints

Market Transformation - Program Approach



Objective: Creating a Large Scale and Lasting Impact



Push the efficiency envelope beyond star-rating



Bring the initial cost down for super efficient ACs



Communicate benefits for the consumers and the industry



Expand the overall market size through energy efficiency

AIR CONDITIONER





Super Efficient Air-conditioners



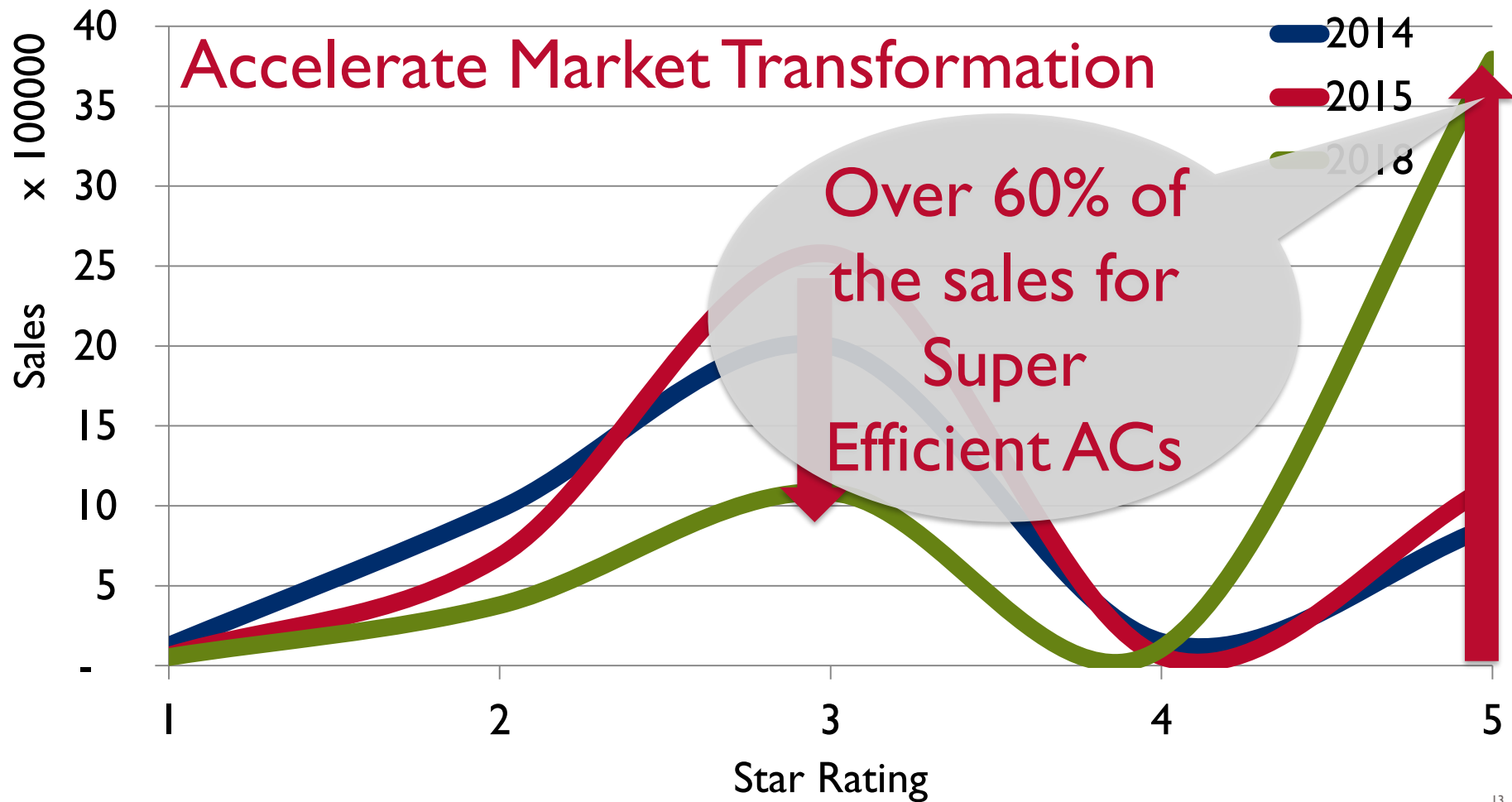
Life Cycle Cost Effective



Quality Installation and Service

Potential Impact





Increasing Average Efficiency of AC Stock (EER)



Savings of over
2,000 GWh/Yr
&
1.9 GW Peak

2018

4.8

Potential with Super
Efficient AC Program

2018

3.6

Business As Usual EER Projection

2015

3.2

2014

3.1

Potential Impact



Energy Savings
of over 60% for
the consumers



National energy
savings equivalent to
over 500 coal-
powered 250 MW
power plants by 2030



Typical payback
of 2-4 years on
additional cost

EESL – USAID: Partnership for Scaling-up EE Deployment

**Market
Intelligence**

**Program
Design**

**Technical
Specifications**

**Rollout
&
Implementation
Strategy**

**Financing
Options**



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