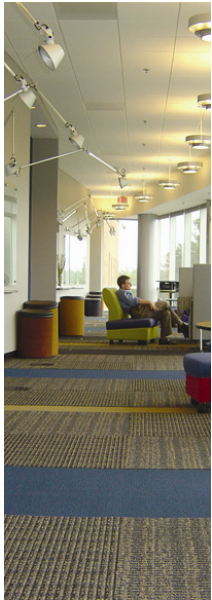


# 2010 India EEI Results

## Findings Summary





# Respondent Profile

## Energy Efficiency Indicator 2010 India Results

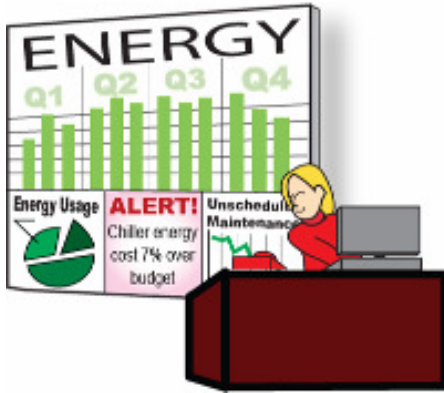
Energy Efficiency Indicator – India 2010  
Copyright 2010 Johnson Controls, Inc.



## Who we surveyed: 2 qualifying criteria



1. Must have capital or operations budget responsibility for their organization's facilities.



2. Job responsibilities must include reviewing or monitoring energy usage, and/or

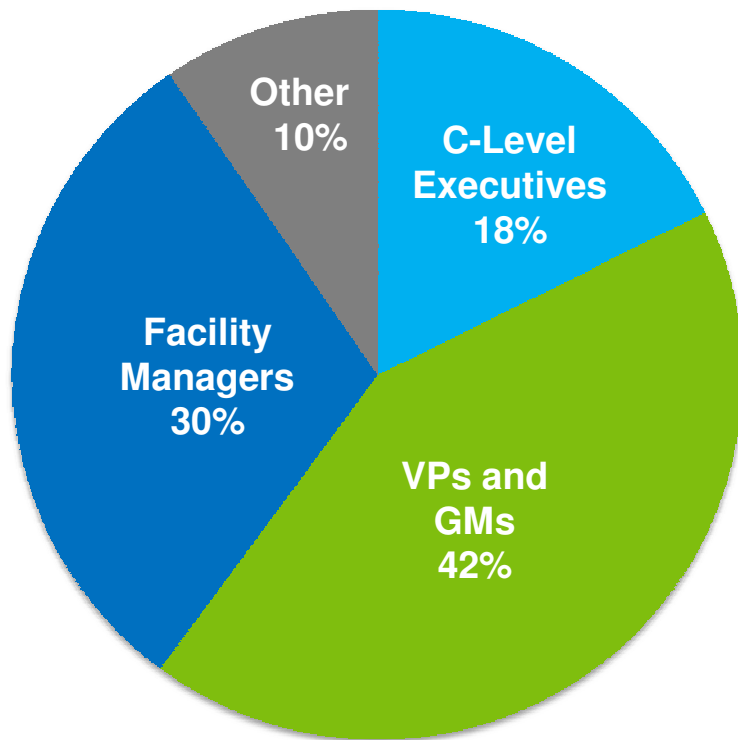
proposing or approving initiatives to make organization's facilities more efficient.



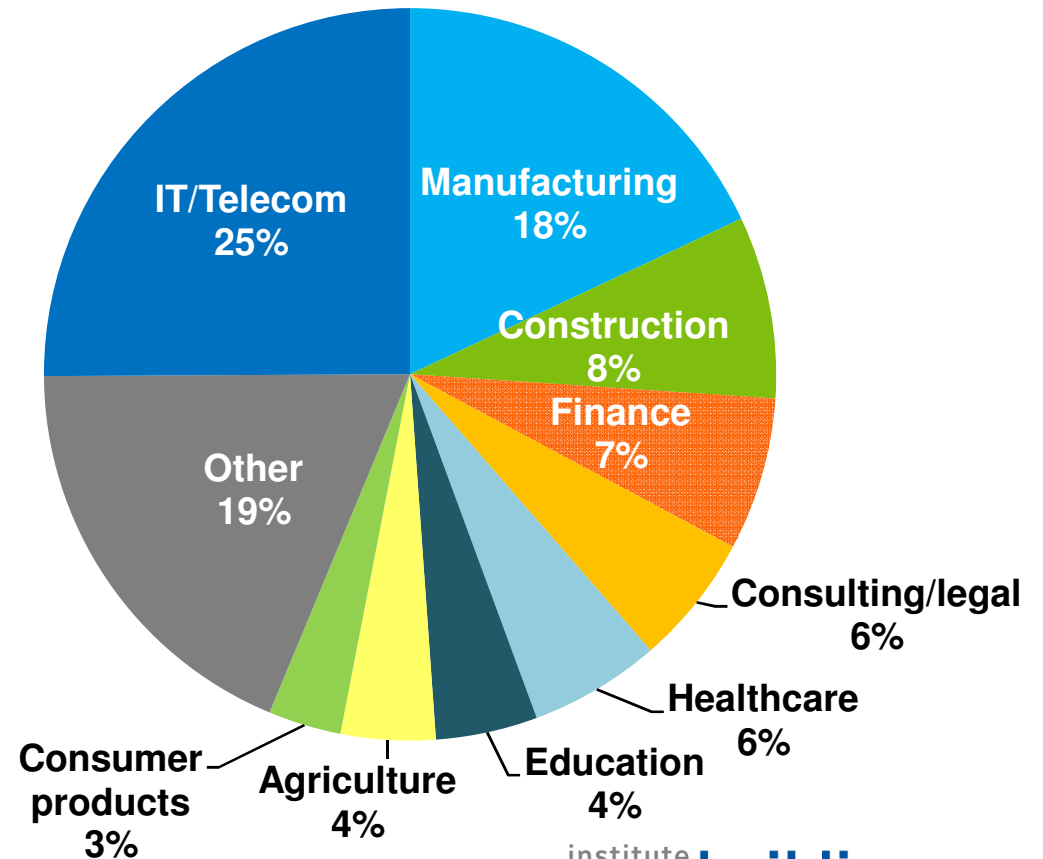
## Who we surveyed

**311** total respondents in India

**By Role**



**By Industry Sector**

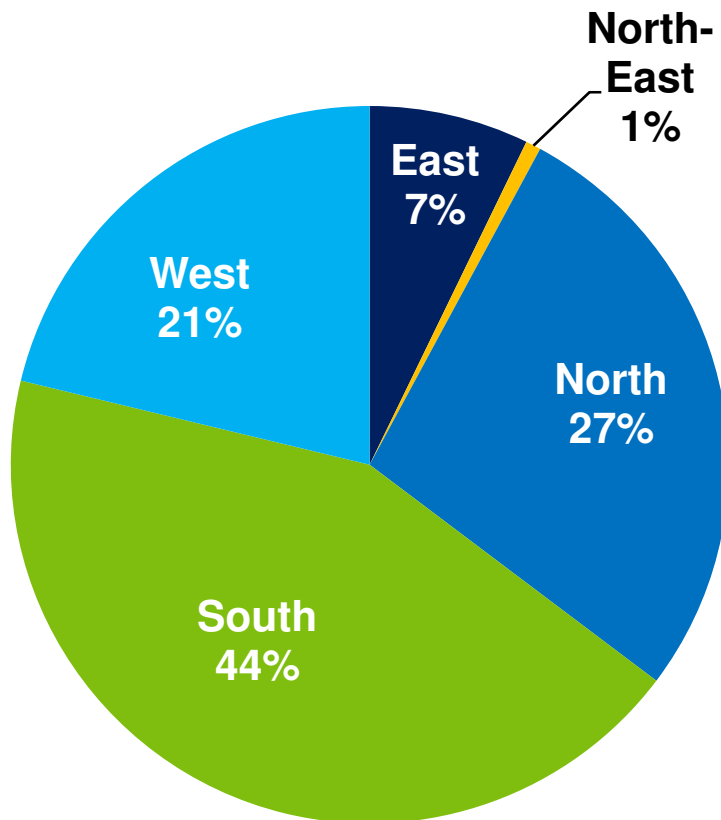




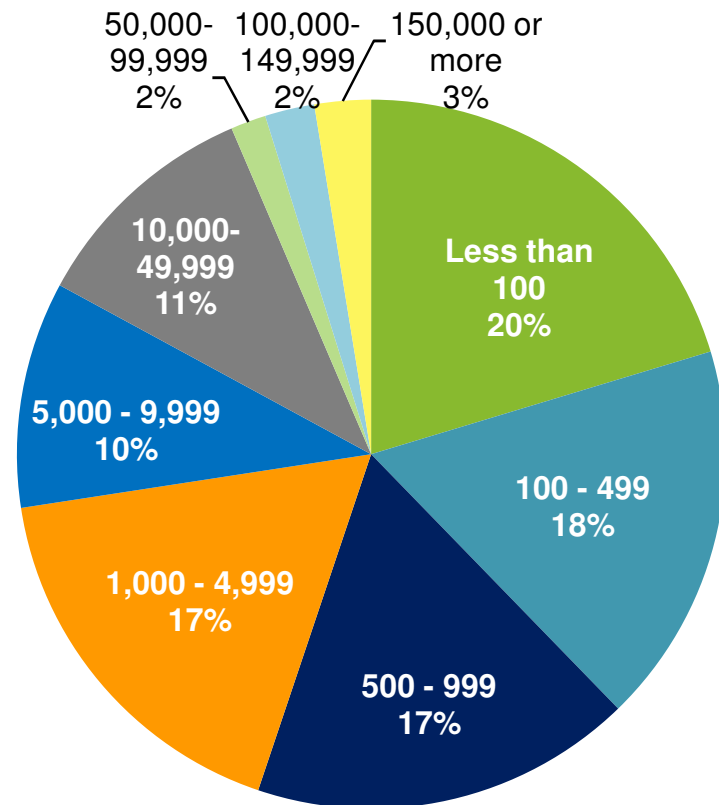
## Who we surveyed

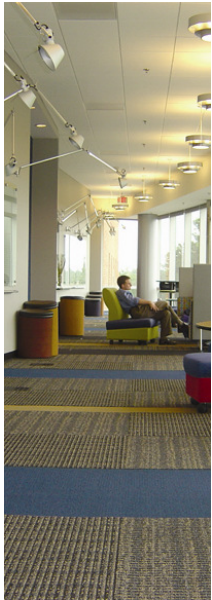
**311** total respondents in India

By Region



By Size – Number of Employees





# Priorities and Concerns

## Energy Efficiency Indicator 2010 India Results

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## Energy efficiency remains a strong business priority in India

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**85%...**

are paying more attention to energy efficiency than last year

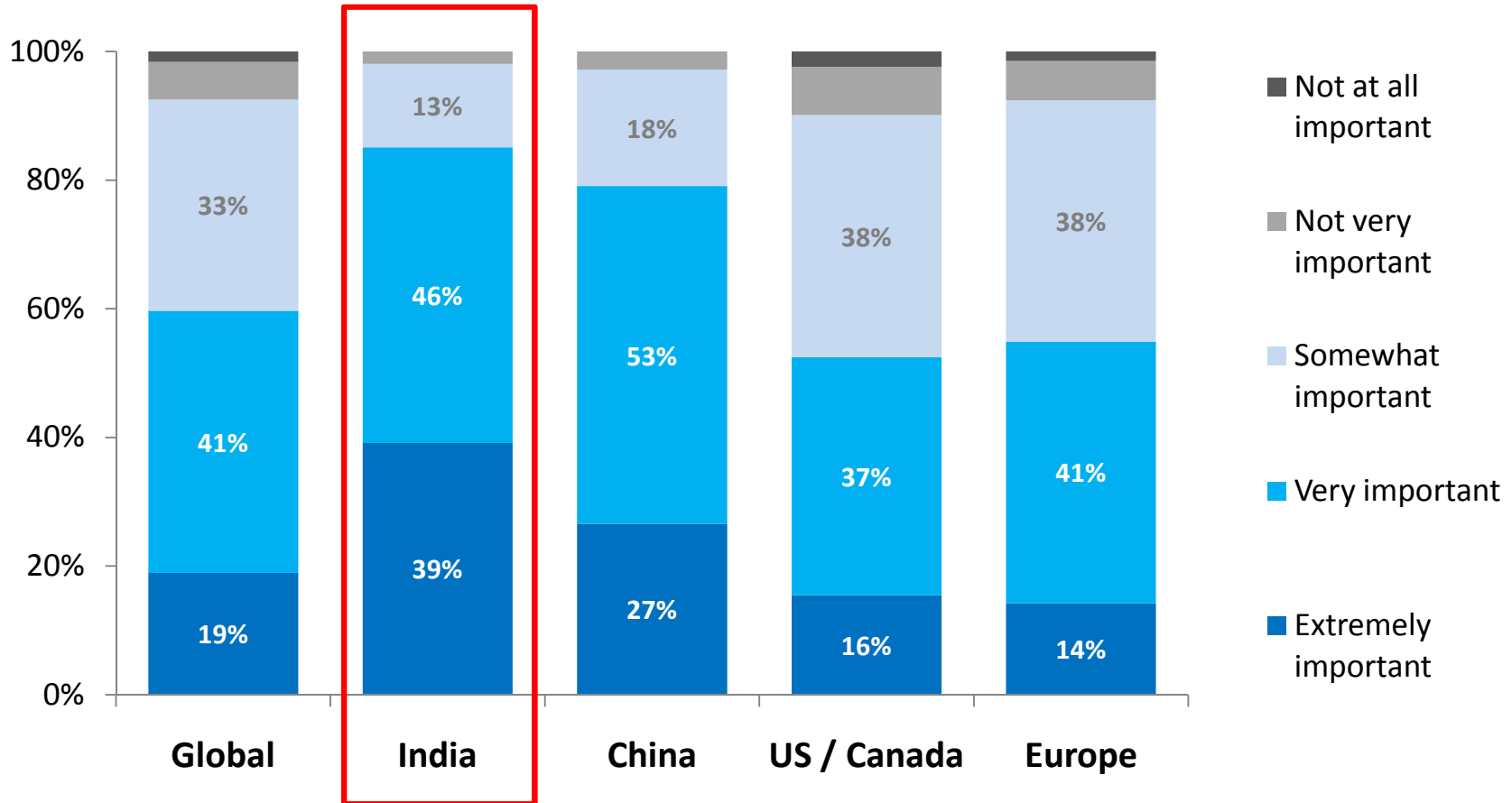
**91%...**

Say energy efficiency is a priority for new construction and retrofit projects



## Energy management considered important throughout the world, particularly India and China

How important is energy management to your organization?

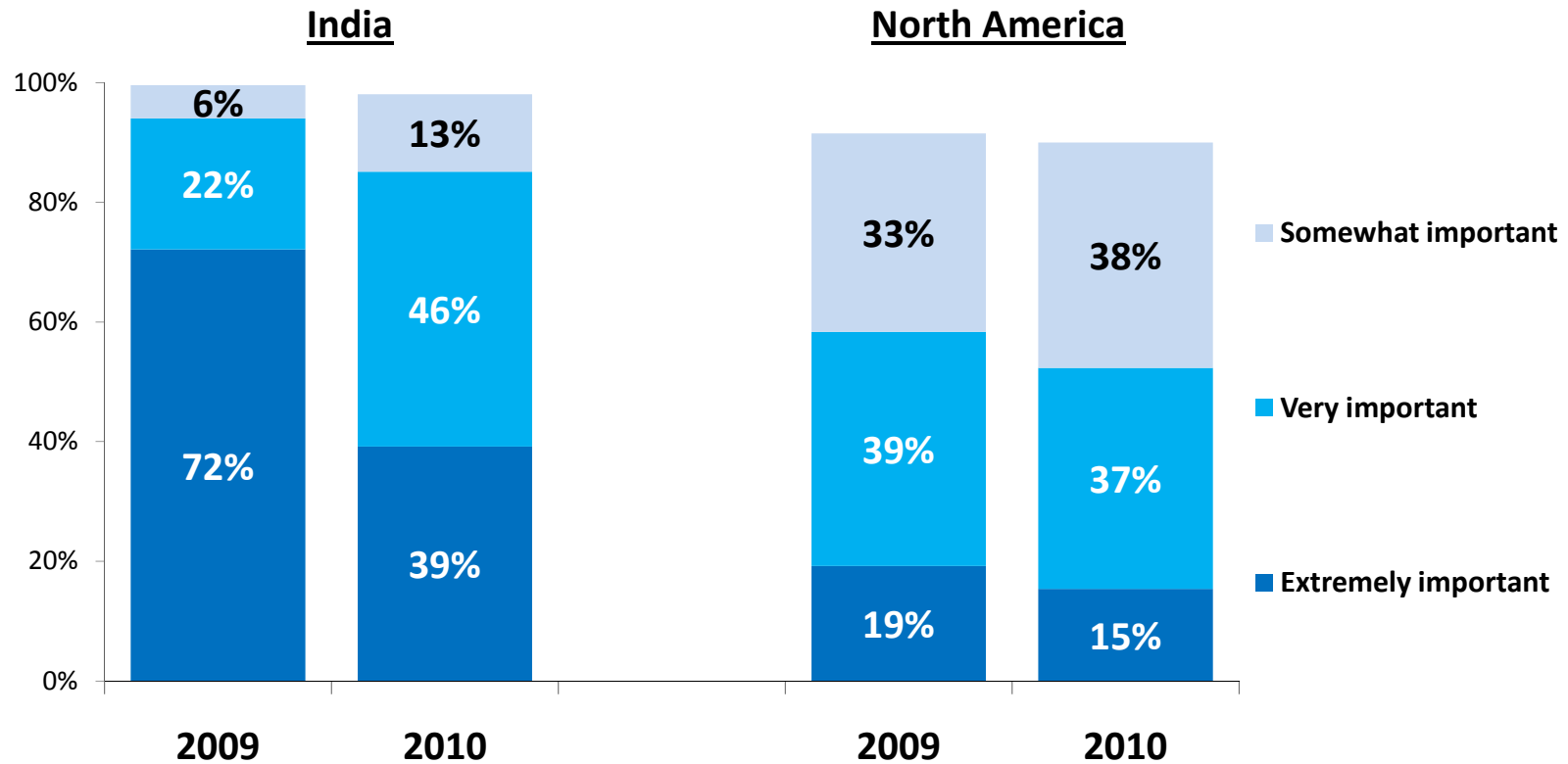






## Yet the level of stated importance has dropped in both India and North America since 2009

How important is energy management to your organization?

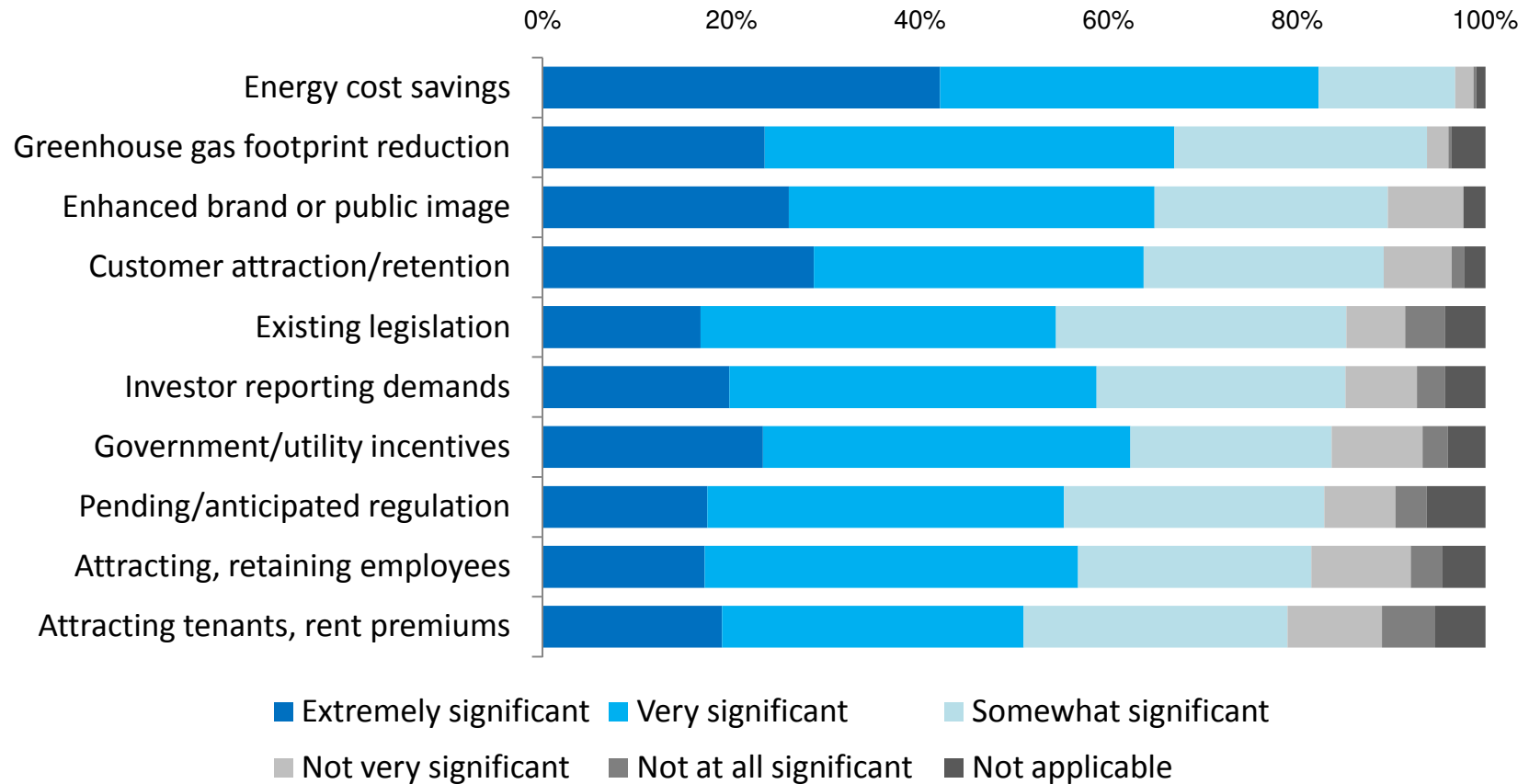




# Reducing energy costs is the key driver in India

Carbon, public image, customer attraction also notably high

## How significant an influence are the following in your organization's energy efficiency decisions?





## Energy costs is top driver in all regions; Climate concerns are more important in India vs. North America

### Global

1. Energy cost savings
2. Greenhouse gas reduction
3. Enhanced public image
4. Government/utility incentives

### India

1. Energy cost savings
2. Greenhouse gas reduction
3. Enhanced public image
4. Customer attraction/retention

### U.S. / Canada

1. Energy cost savings
2. Enhanced public image
3. Government/utility incentives
4. Greenhouse gas reduction

### Europe

1. Energy cost savings
2. Greenhouse gas reduction
3. Existing legislation
4. Enhanced public image

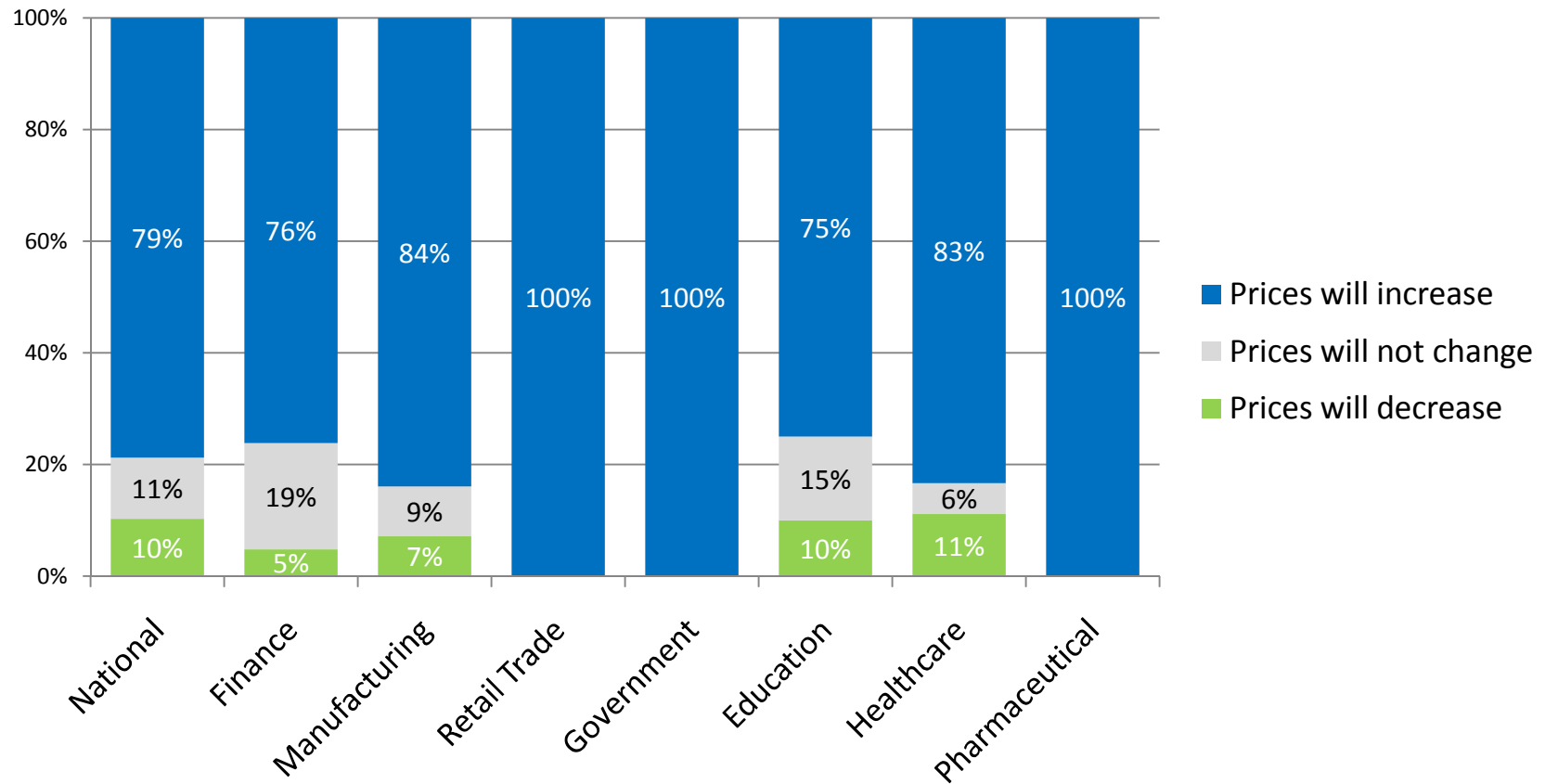
### China

1. Energy cost savings
2. Greenhouse gas reduction
3. Enhanced public image
4. Customer attraction/retention



## Strong belief in price increase consistent across industries in India

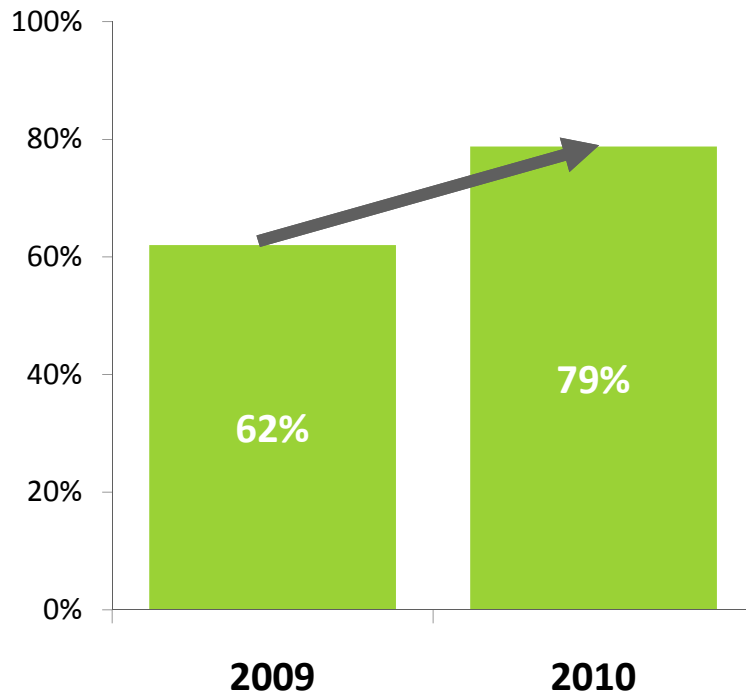
Do you believe the price of the energy your facilities use will increase, decrease, or not change significantly over the next 12 months?



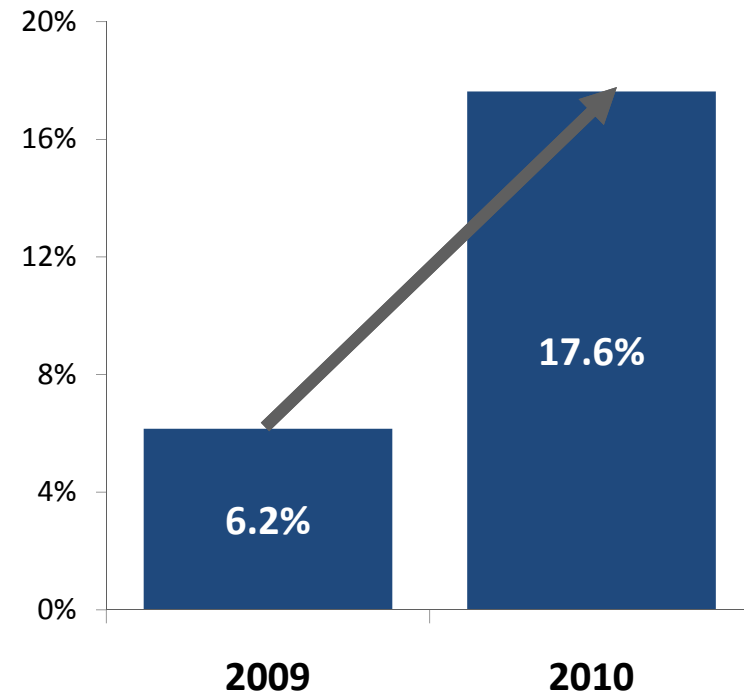


# Greater energy price increases expected in 2010 compared with responses from 2009

**Do you believe the price of the energy will increase over the next 12 months?**



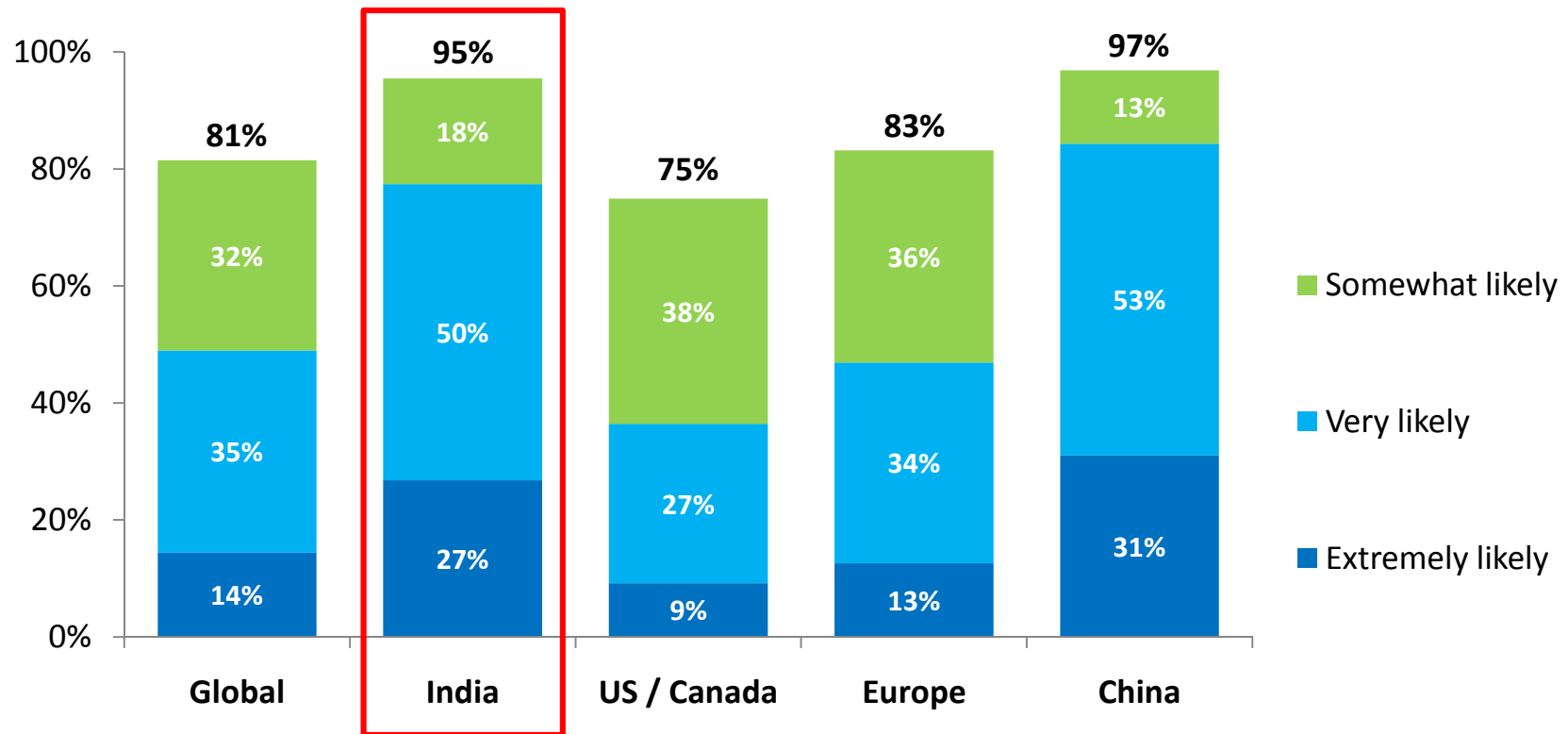
**Average expected change in energy prices over the next 12 months**





## Significant legislation expected within two years around the world, especially so in India and China

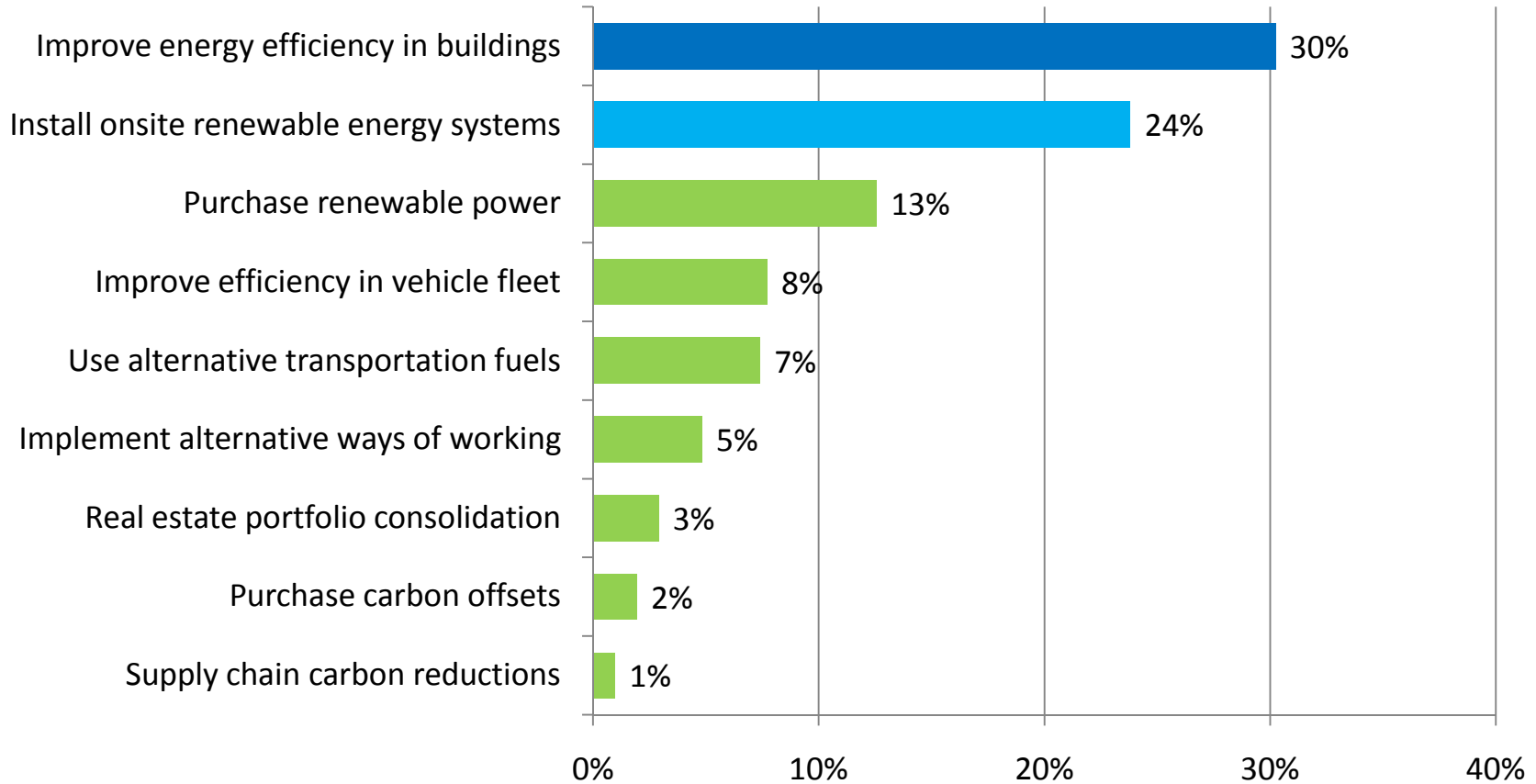
**How likely is significant legislation mandating energy efficiency and/or carbon reduction within the next 2 years?**





# Improve energy efficiency in buildings is top carbon emissions reduction strategy in India

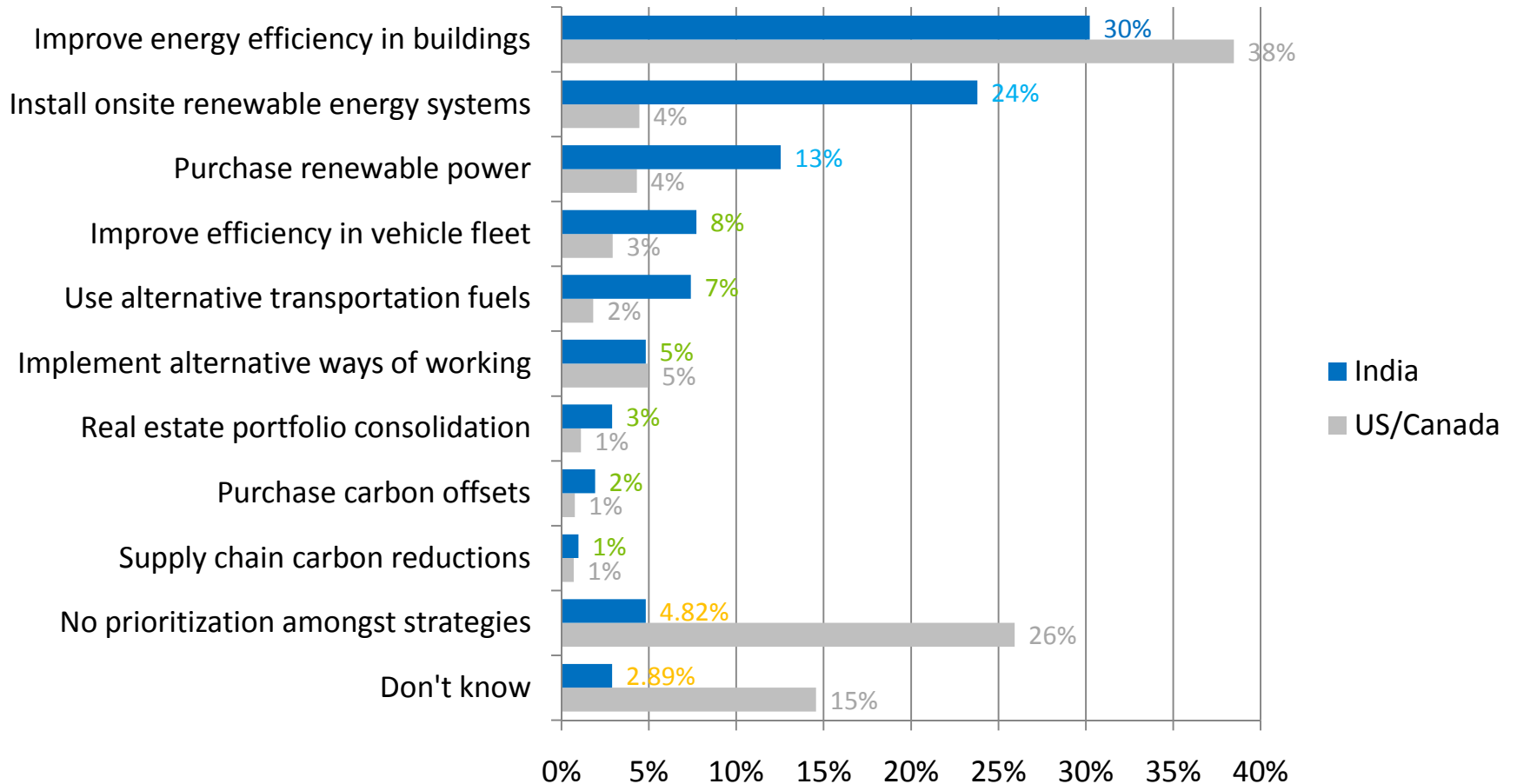
## What is your organization's top strategy to reduce its carbon emissions?



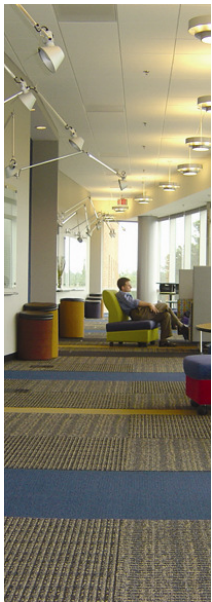


# Indian business leaders are more aware of their organizations' carbon reduction strategy

## What is your organization's top strategy to reduce its carbon emissions?







# Investment Plans & Financial Criteria

## Energy Efficiency Indicator 2010 India Results

Energy Efficiency Indicator – India 2010  
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The recession had a mixed impact on investment  
Some say they invested *more* in efficiency as a result

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As a result of the recession in India...

**59%** invested less,

**15%** invested at historically consistent levels,  
and

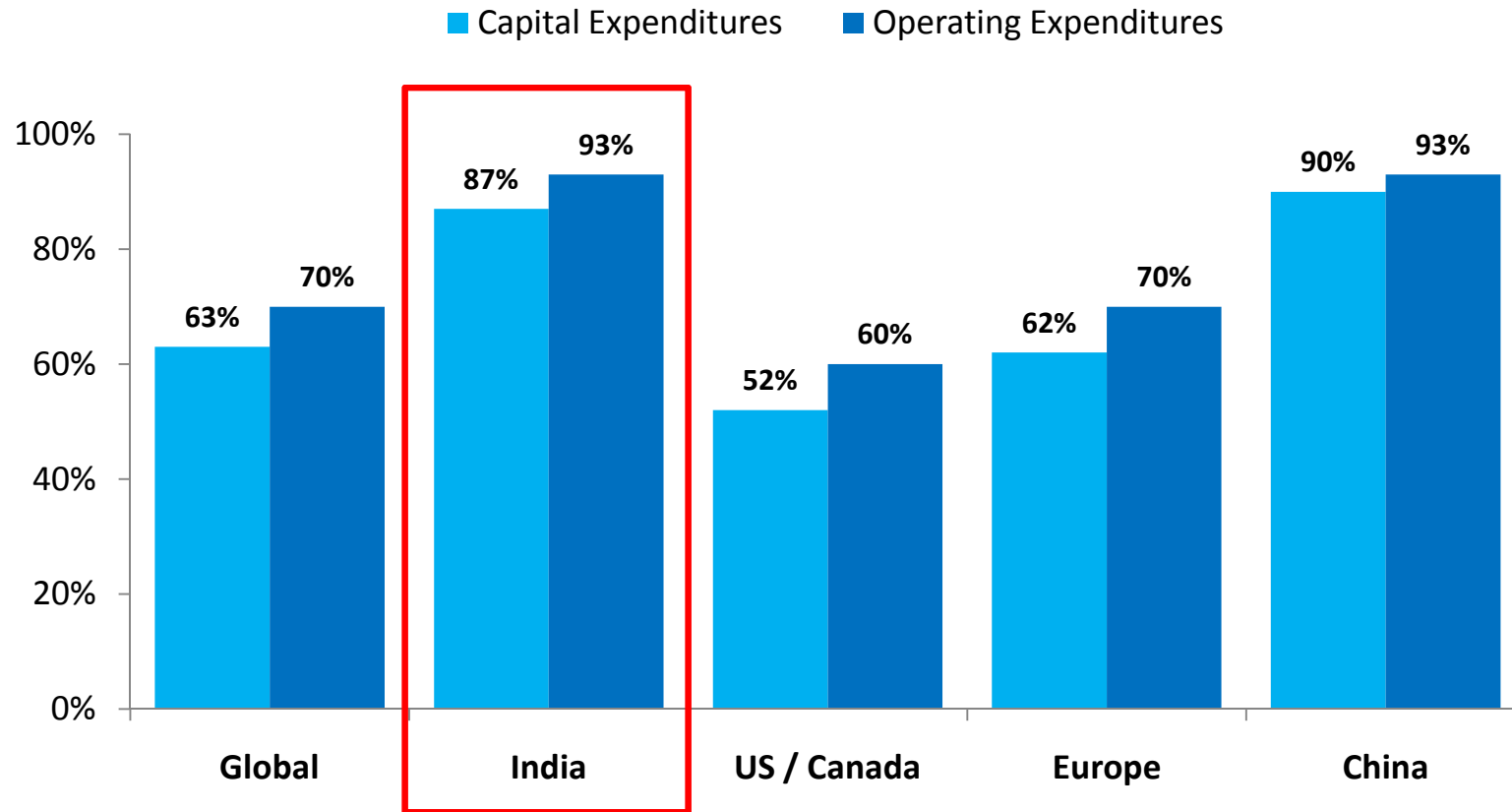
**26%** invested more in energy efficiency

...over the past 12 months



# Almost all Indian organizations plan to make energy efficiency investments in 2010

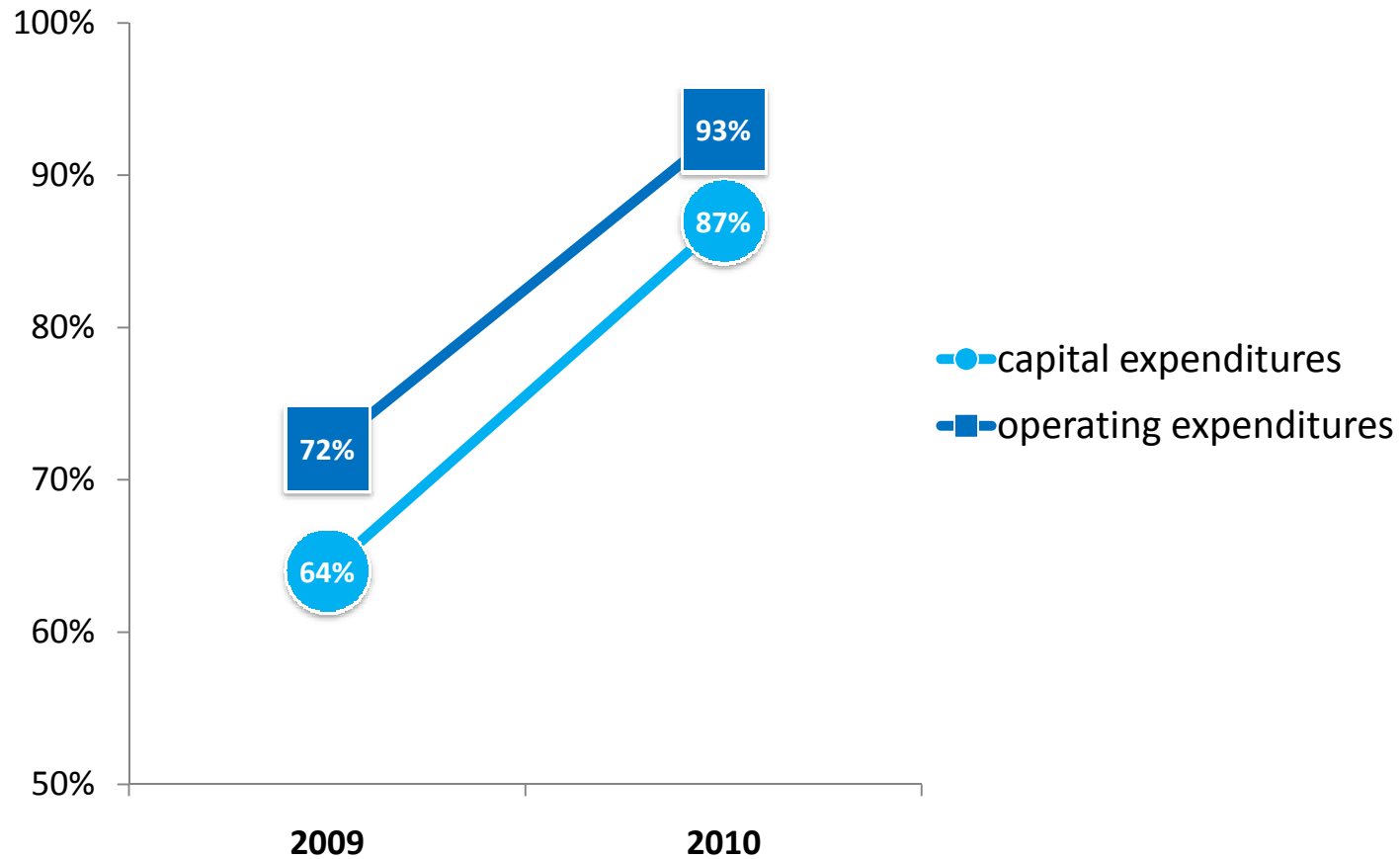
Fraction planning to make energy efficiency investments over the next 12 months with...





# Planned energy efficiency spending to increase significantly in India in 2010

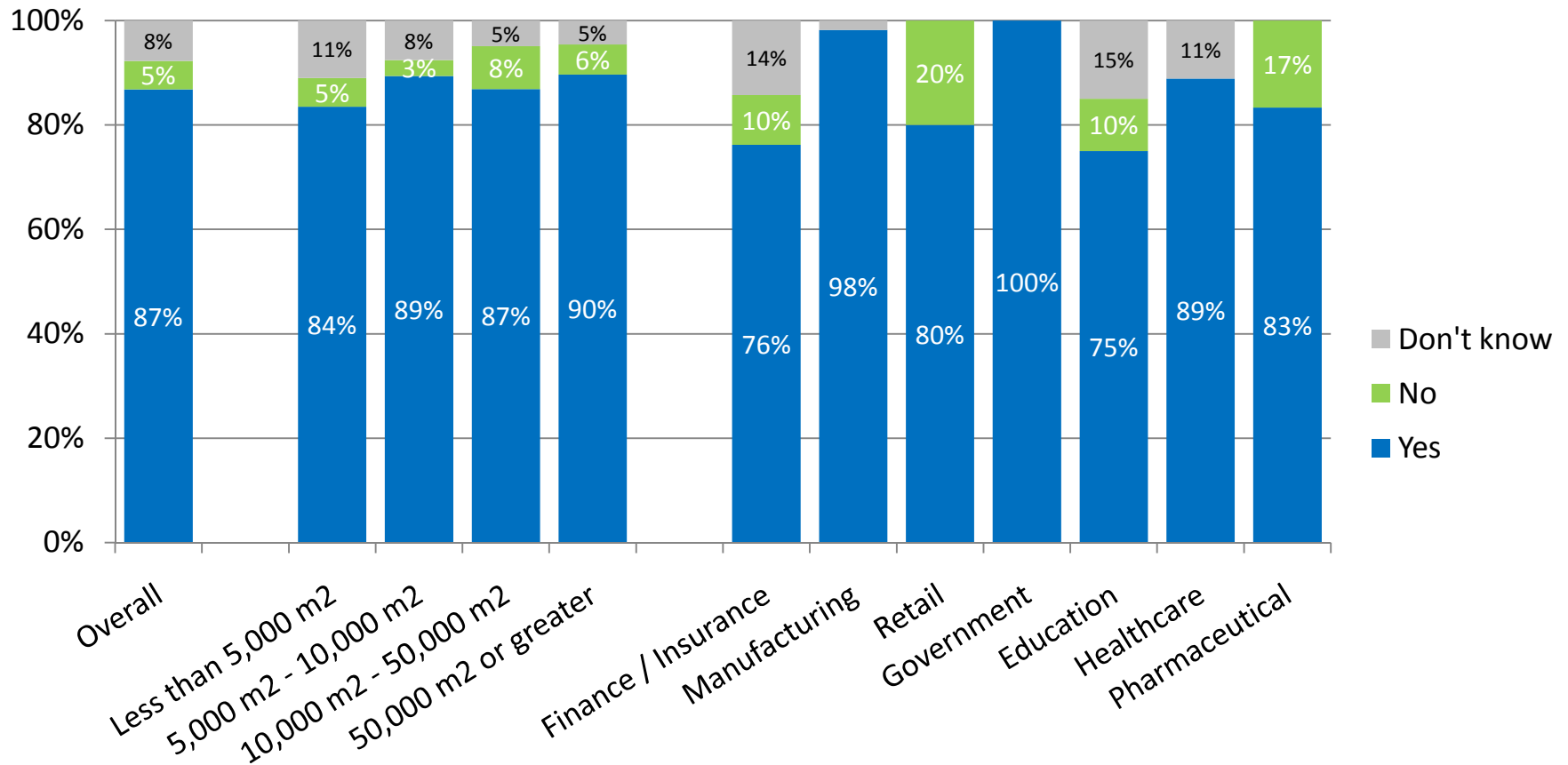
**Percentage planning to make energy efficiency investments over the next 12 months with...**





# High levels of investment planned across all sectors and organization sizes

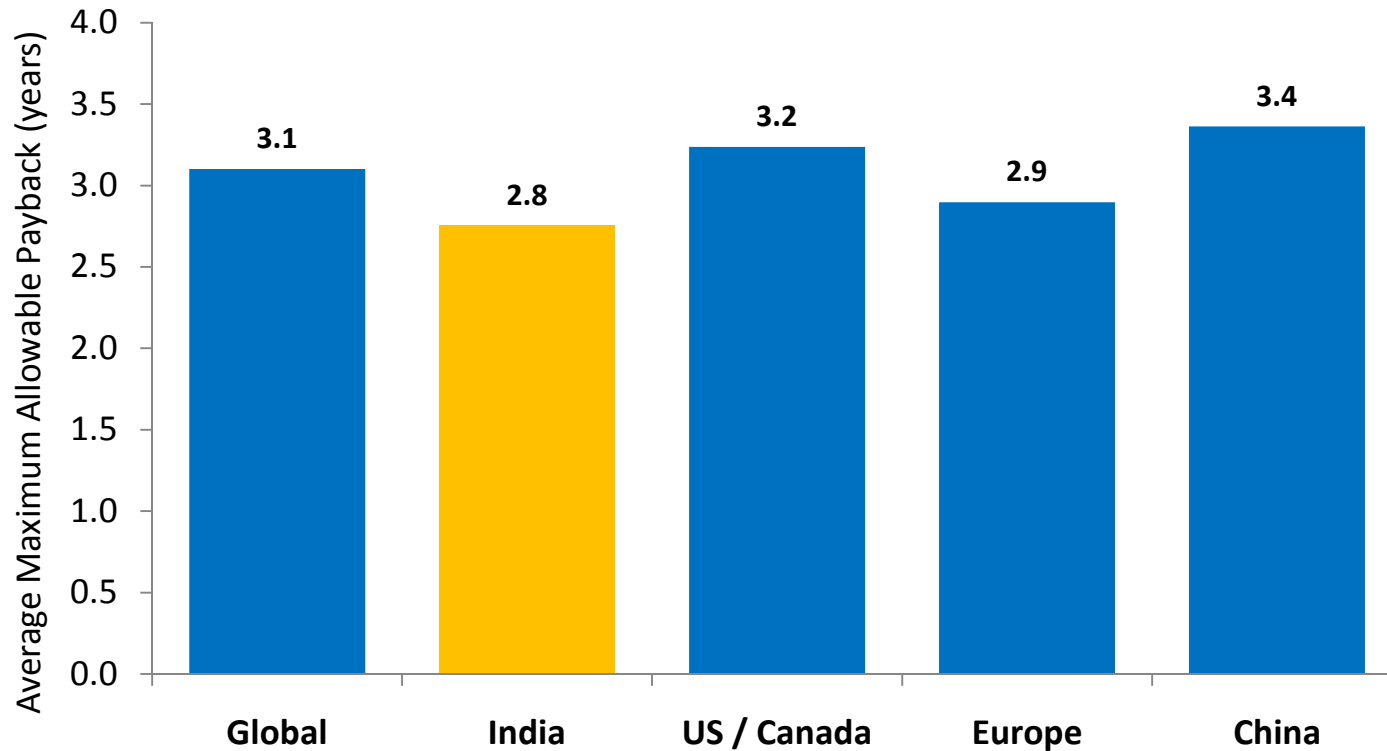
**Do you expect your organization to make energy efficiency improvements financed with capital expenditures over the next 12 months**





# Indian organizations require the fastest payback in the world

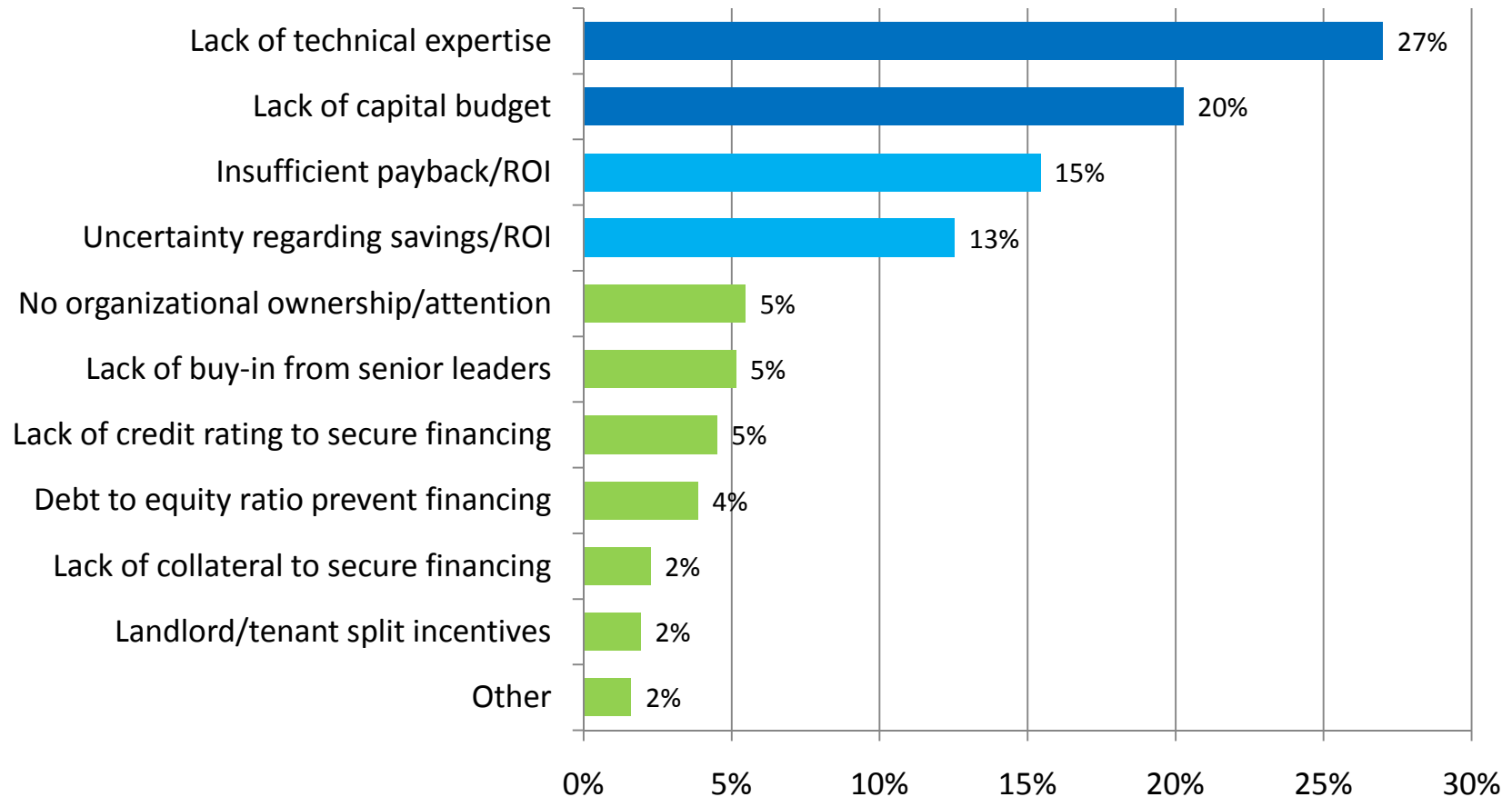
What is the longest payback period you would allow for a significant energy efficiency investment?





# Lack of technical expertise and capital the greatest barriers to energy efficiency in India

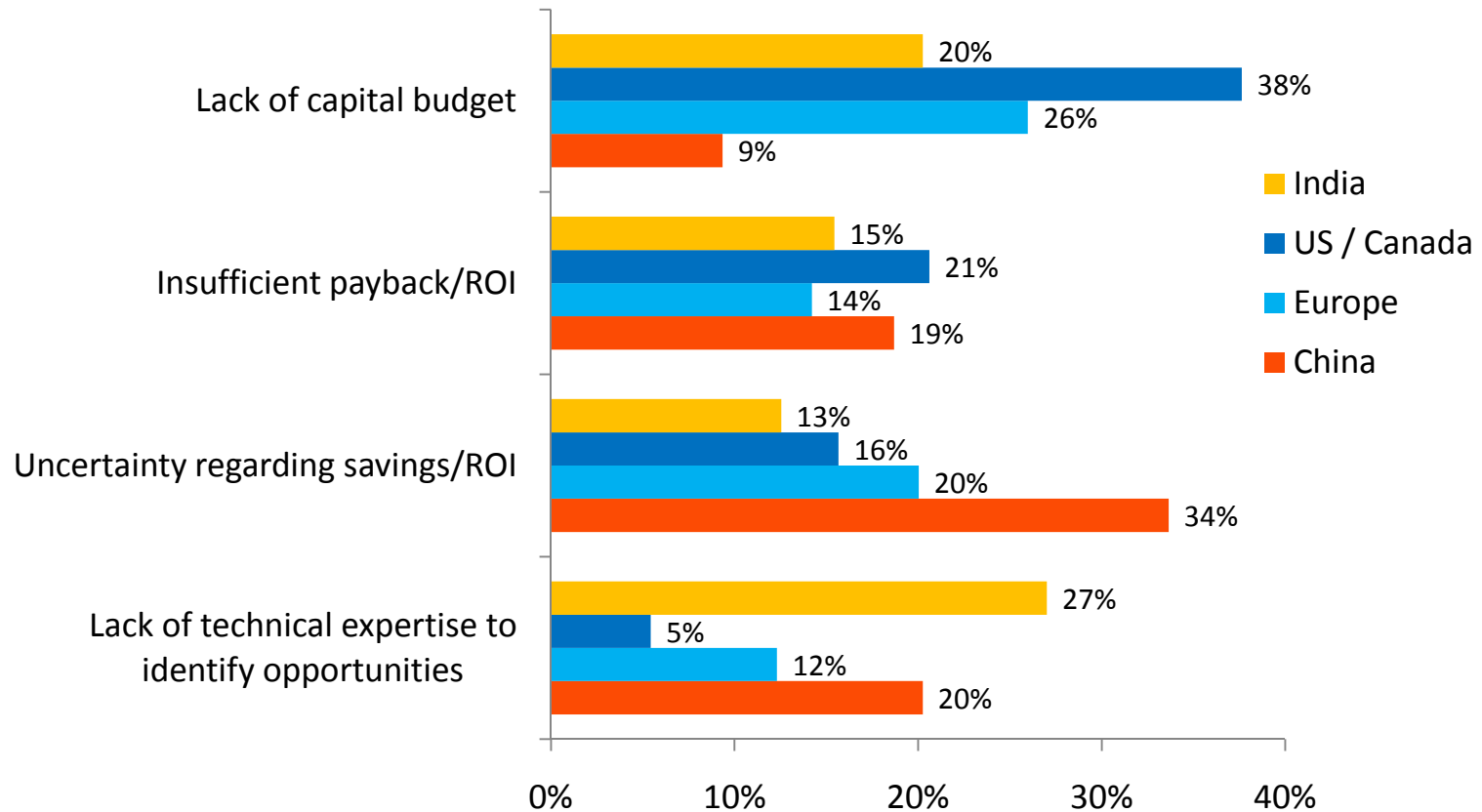
**What is the top barrier to capturing energy savings for your organization?**



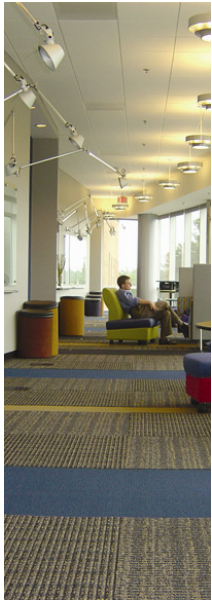


## Need certainty and more expertise in India and China Need capital in North American and Europe

**What is the top barrier to capturing energy savings for your organization?**







# Practices & Technologies

## Energy Efficiency Indicator 2010 India Results

Energy Efficiency Indicator – India 2010  
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## Significant amount of efficiency measures implemented over the past 12 months in India

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### Most Common Practices

**81%** switched to more energy efficient lamps, ballasts, or lighting fixtures

**75%** educated facilities operations staff

**69%** educated building occupants

**55%** installed energy-saving glass

**50%** installed renewable energy system

### Other Notable Measures

**48%** Replaced inefficient equipment before the end of its useful life

**48%** Increased preventive maintenance schedules

**48%** Installed occupancy or daylight sensors so lights come on and off as needed

**46%** Re-roofed with white roof covering to reduce heat gain

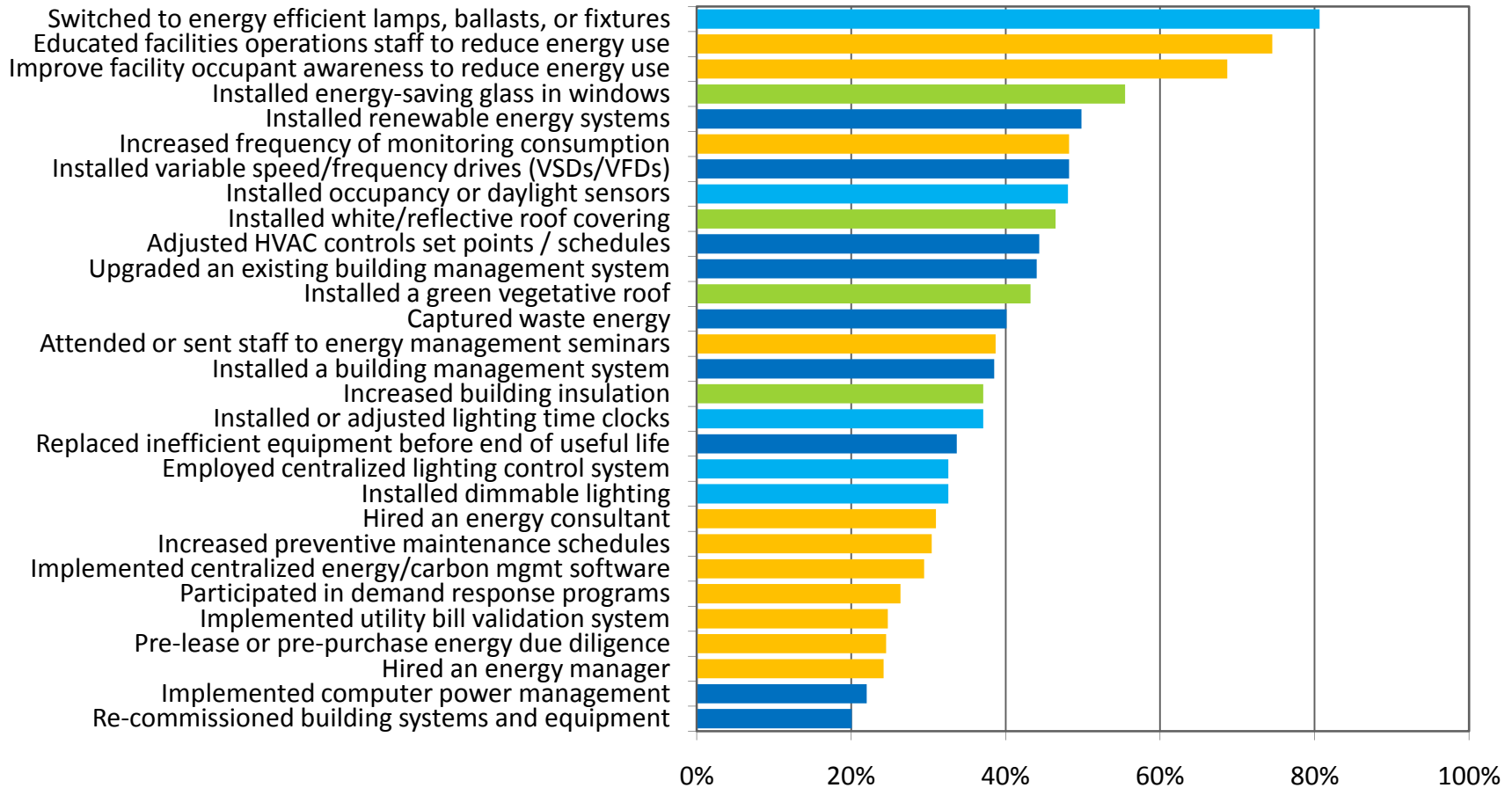
**46%** Self-generate power during demand peaks



# Measures implemented in India over past 12 months balanced across 4 categories

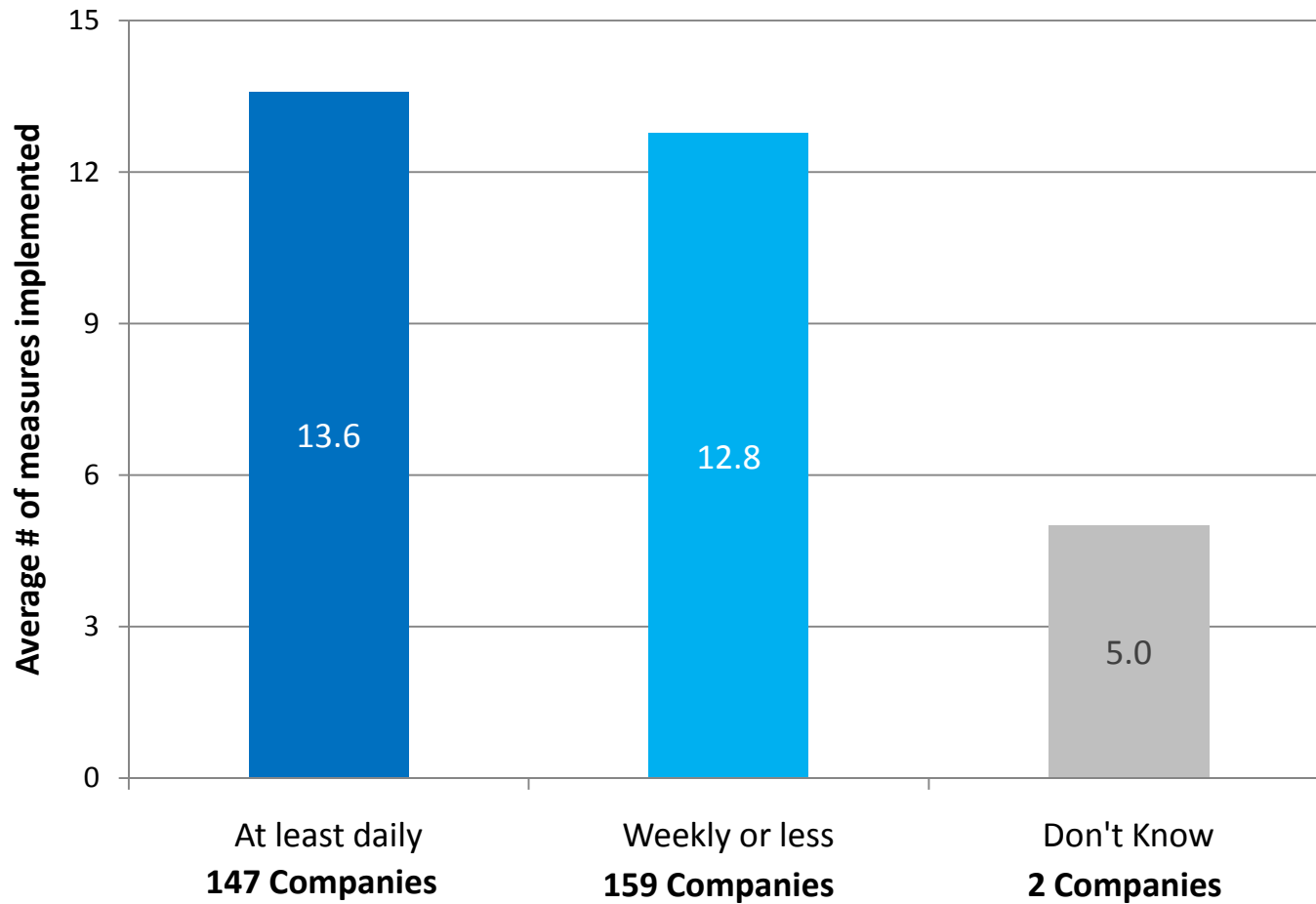
**Which measures has your organization adopted in the last 12 months?**

■ Operations-Related    
 ■ Bldg System-Related    
 ■ Lighting-Related    
 ■ Envelope-Related





## Indian organizations tracking energy use more frequently have implemented more energy-saving measures



How frequently does your company/organization track its energy consumption data?



## More Indian organizations seeking green buildings certificates; Renewable energy on the radar

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**64%** seeking green building certification for new construction projects, up from **17%** in 2009

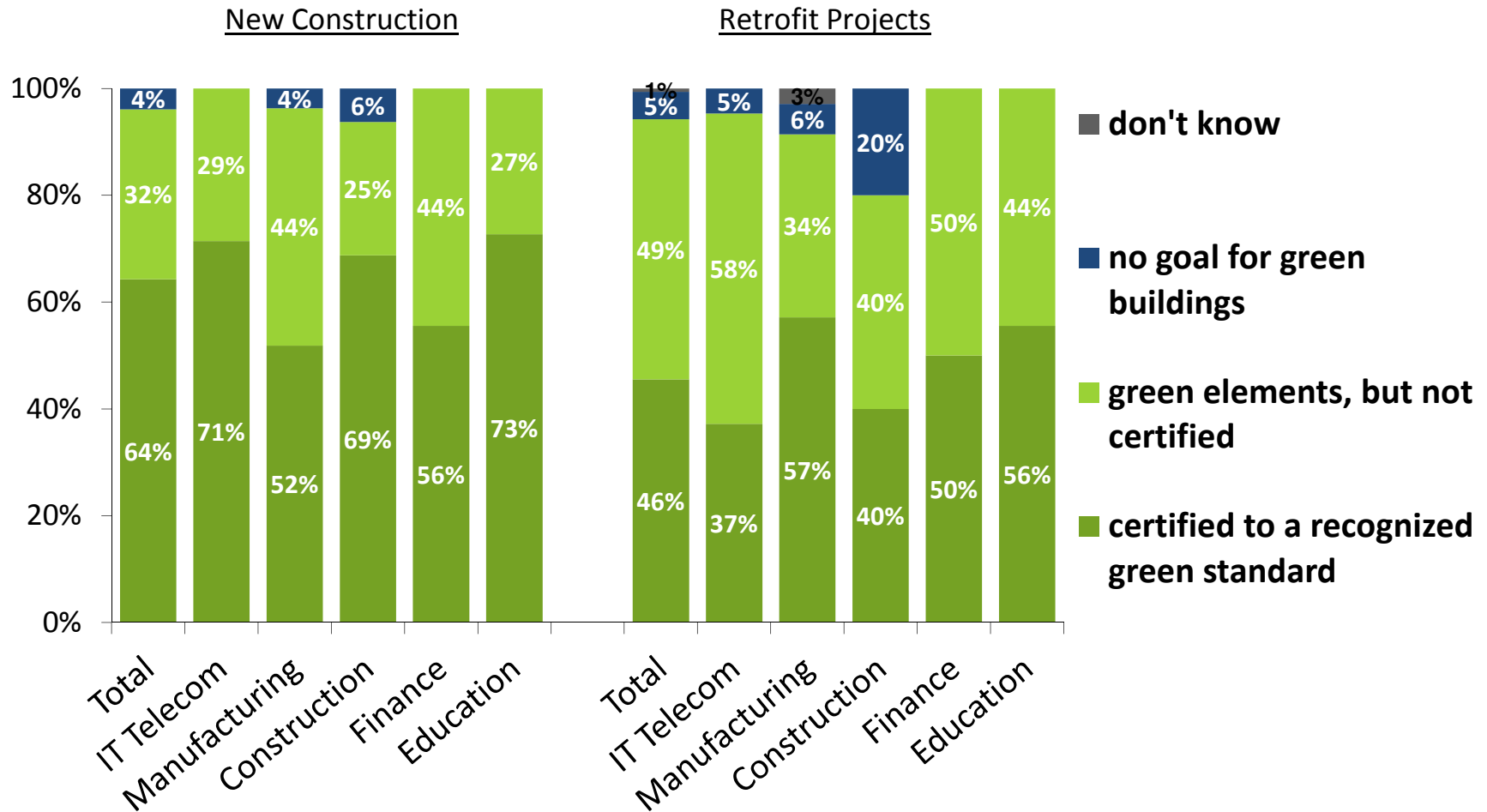
**38%** have at least one green certified building

**73%** considering solar PV, **54%** considering solar thermal, **41%** considering wind energy in new construction and retrofit projects



# Education, IT, and construction sectors lead in targeting green building certification in India

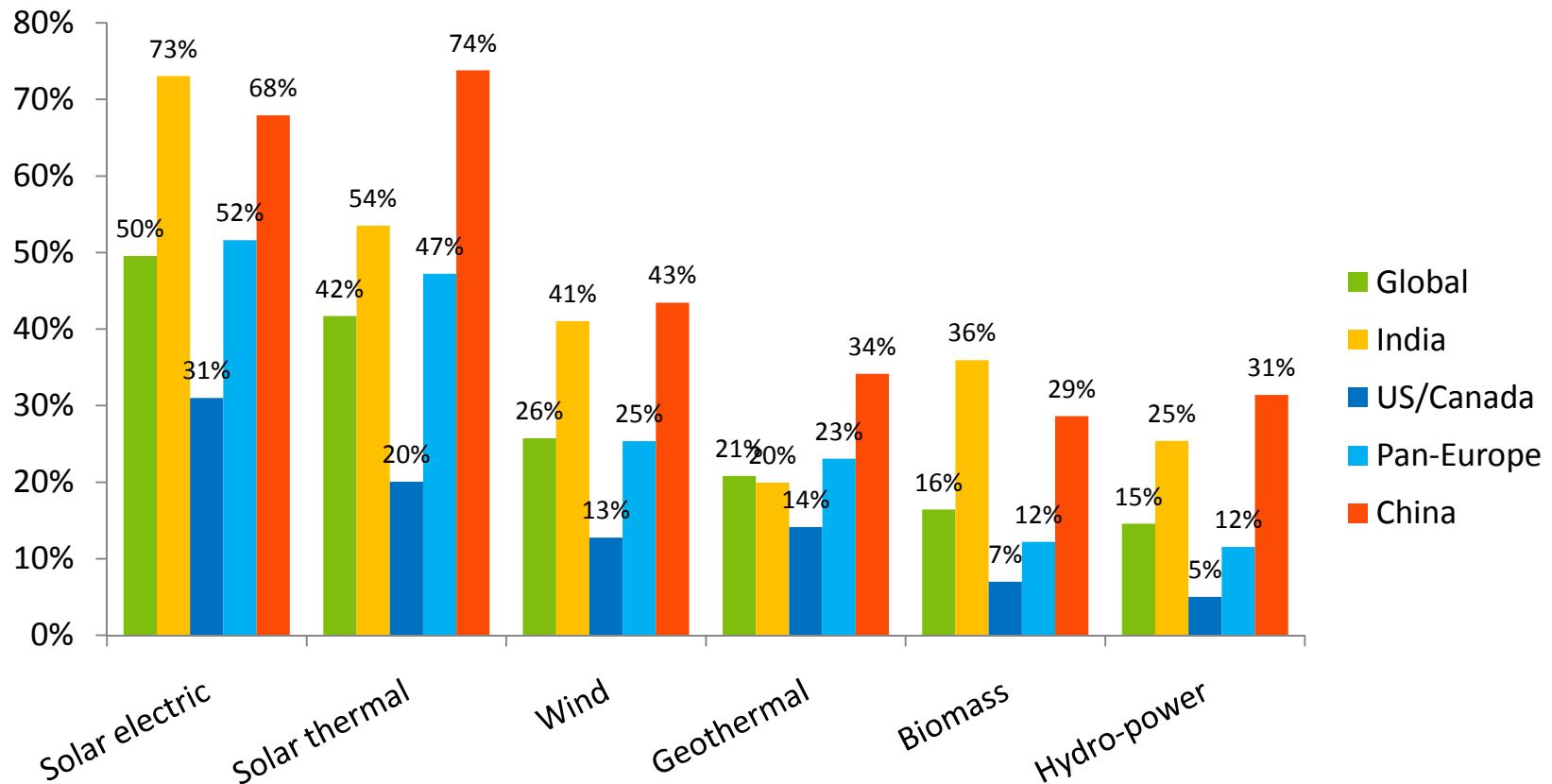
What are your goals with respect to green buildings?





# India and China lead in *considering* renewable energy

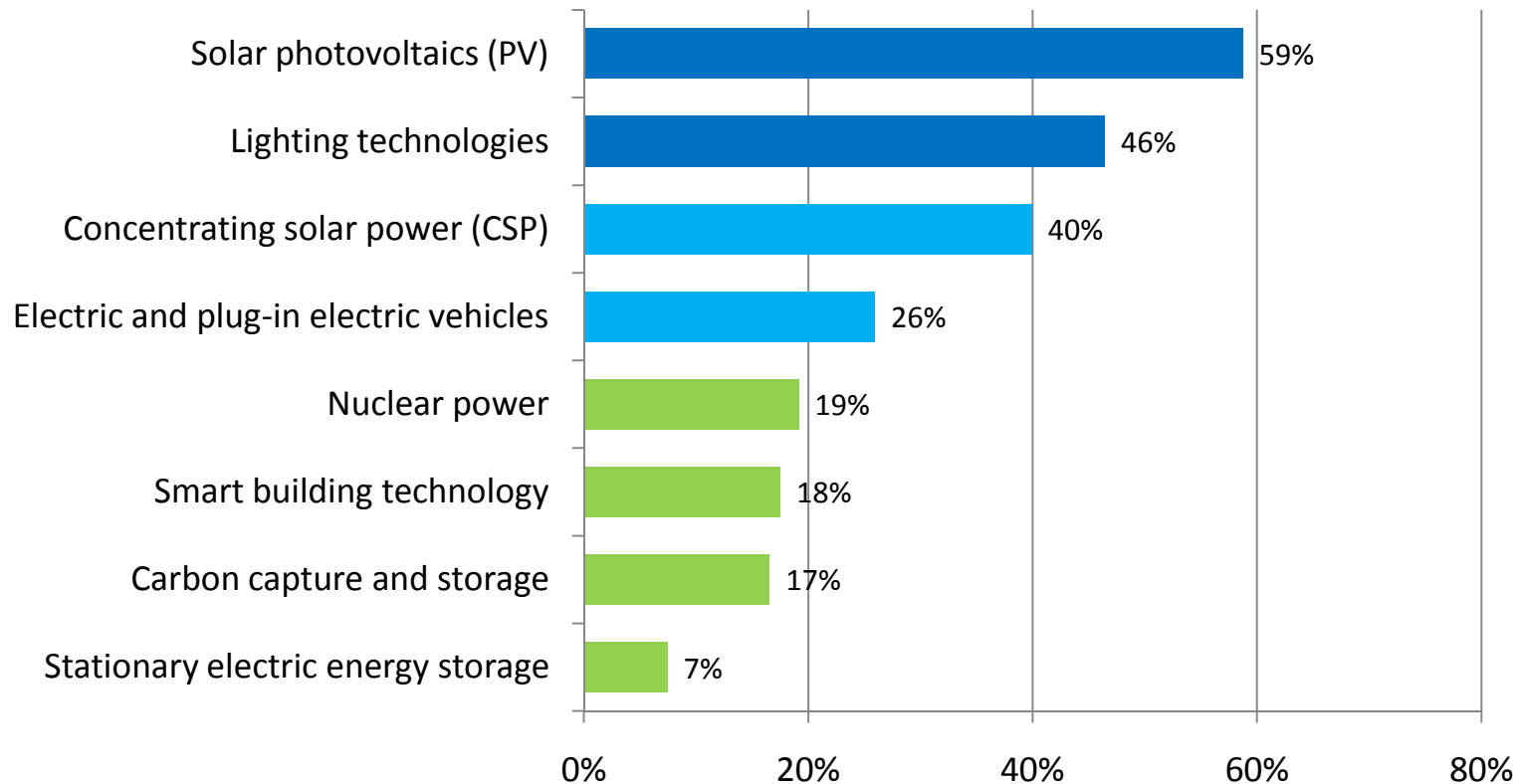
Which renewable energy technologies is your organization considering or utilizing in construction or retrofit projects?





# High expectations for solar photovoltaic and lighting technologies in India

**Which technology do you expect to have the greatest performance-price ratio improvement over the next ten years (select up to 3)?**







## Conclusions

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### ■ **Energy efficiency is high on corporate agendas**

85% of business leaders in India consider energy management very or extremely important, more than any other country surveyed in 2010.

### ■ **Cost and carbon savings are the primary motivators**

Cost savings is a significant factor in energy decision making for 97% of respondents. Decision makers expect energy prices to increase by 17% this year. 94% also cite greenhouse gas emissions reductions as a factor.

### ■ **Despite recession, investment remains strong**

41% invested the same or more in energy efficiency over the last 12 months. 87% plan to make capital investments in energy efficiency in 2010.

### ■ **Yet, a lack of technical expertise limits activity**

The top barrier to energy savings cited by leaders in India is a lack of technical expertise to identify opportunities (27%), followed by limited capital availability (20%), and insufficient return on investment (15%).