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# CCI & ESCO

## A Unique Model for Enhancing Your Building Assets and Performance

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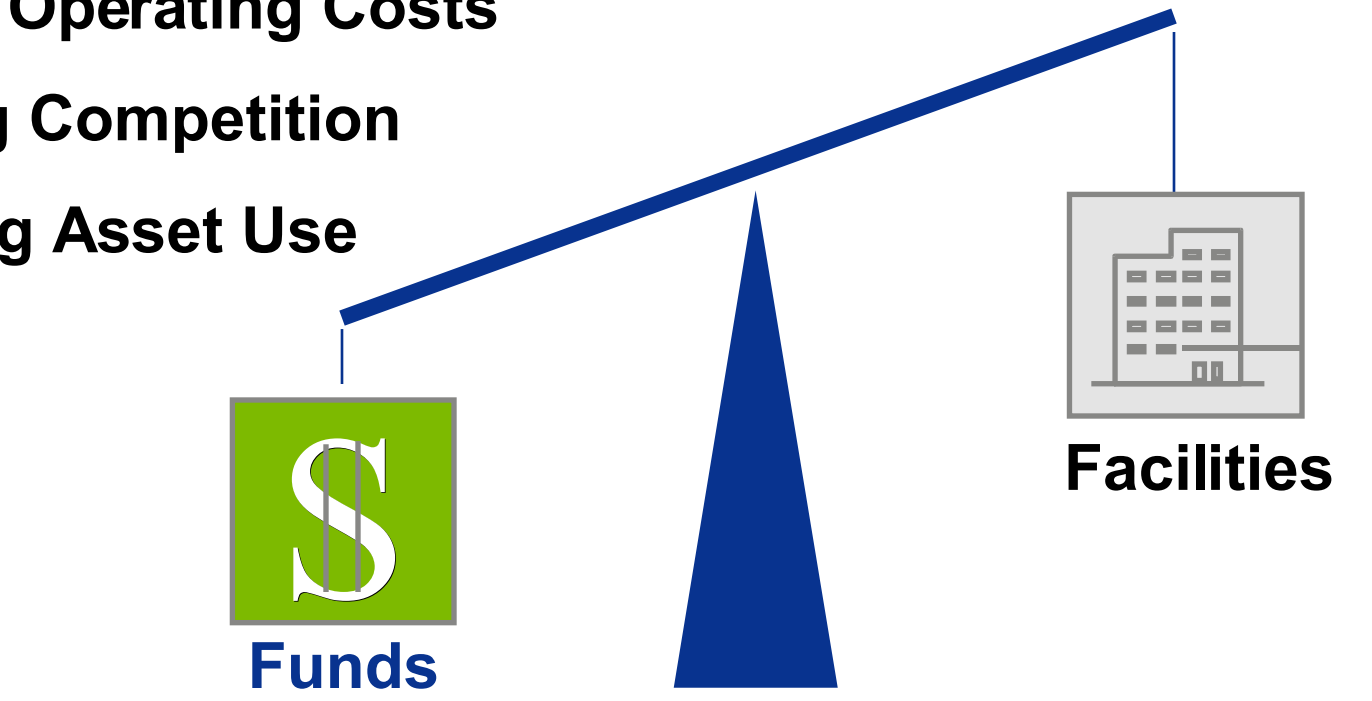
**2<sup>nd</sup> India Cleantech Forum**

**New Delhi – July 11, 2008**





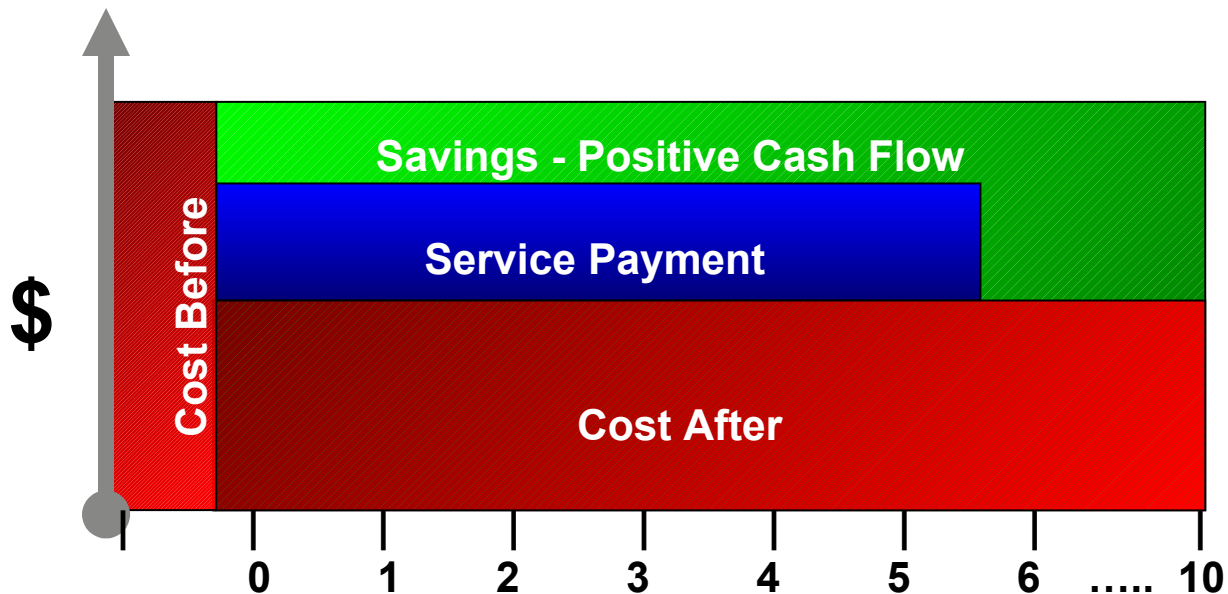
- ❖ **Limited Available Capital**
- ❖ **Matching Core Business Needs vs. Facilities Needs**
- ❖ **Increased Operating Costs**
- ❖ **Increasing Competition**
- ❖ **Maximizing Asset Use**



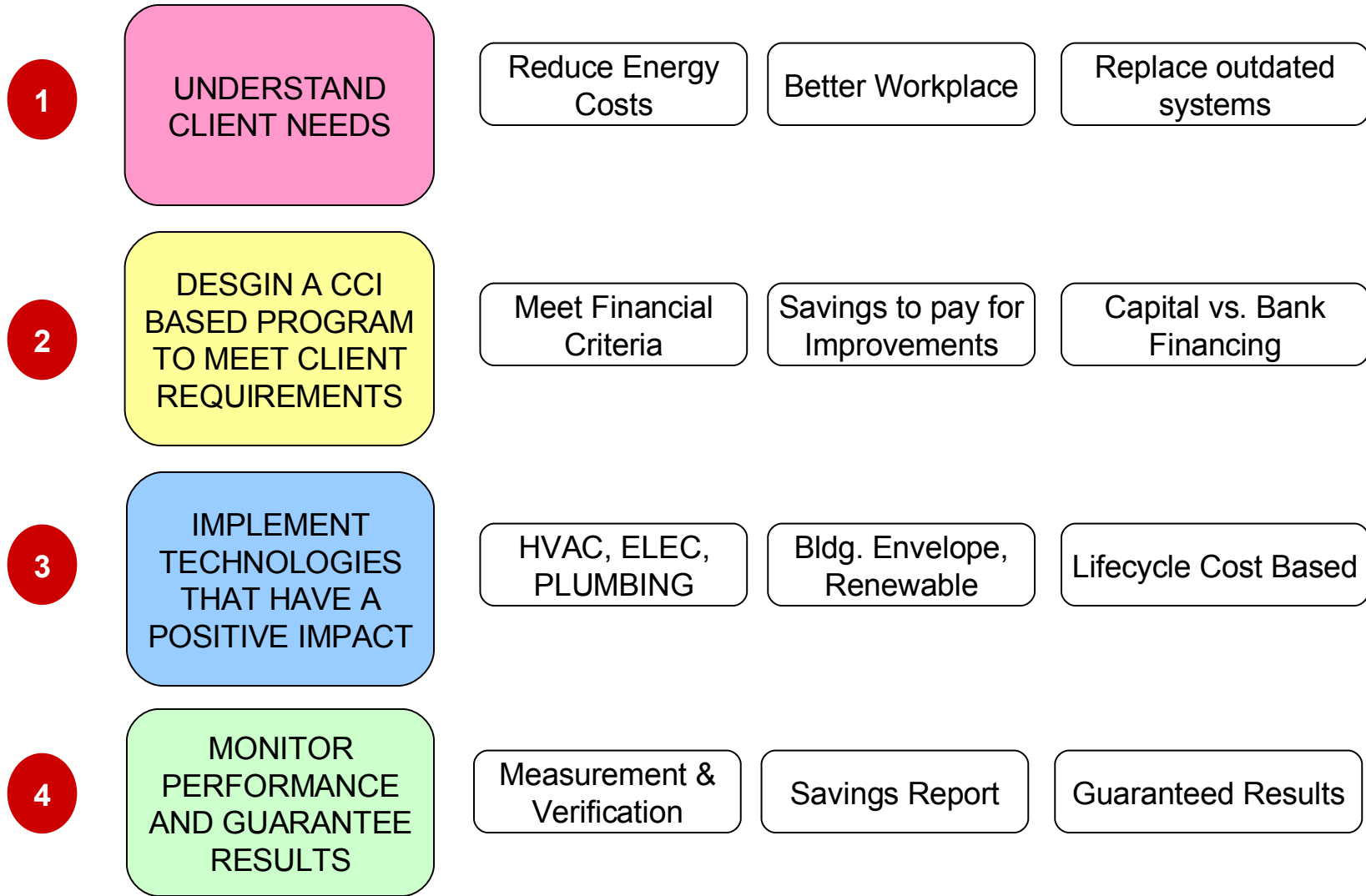
# Performance Contracting



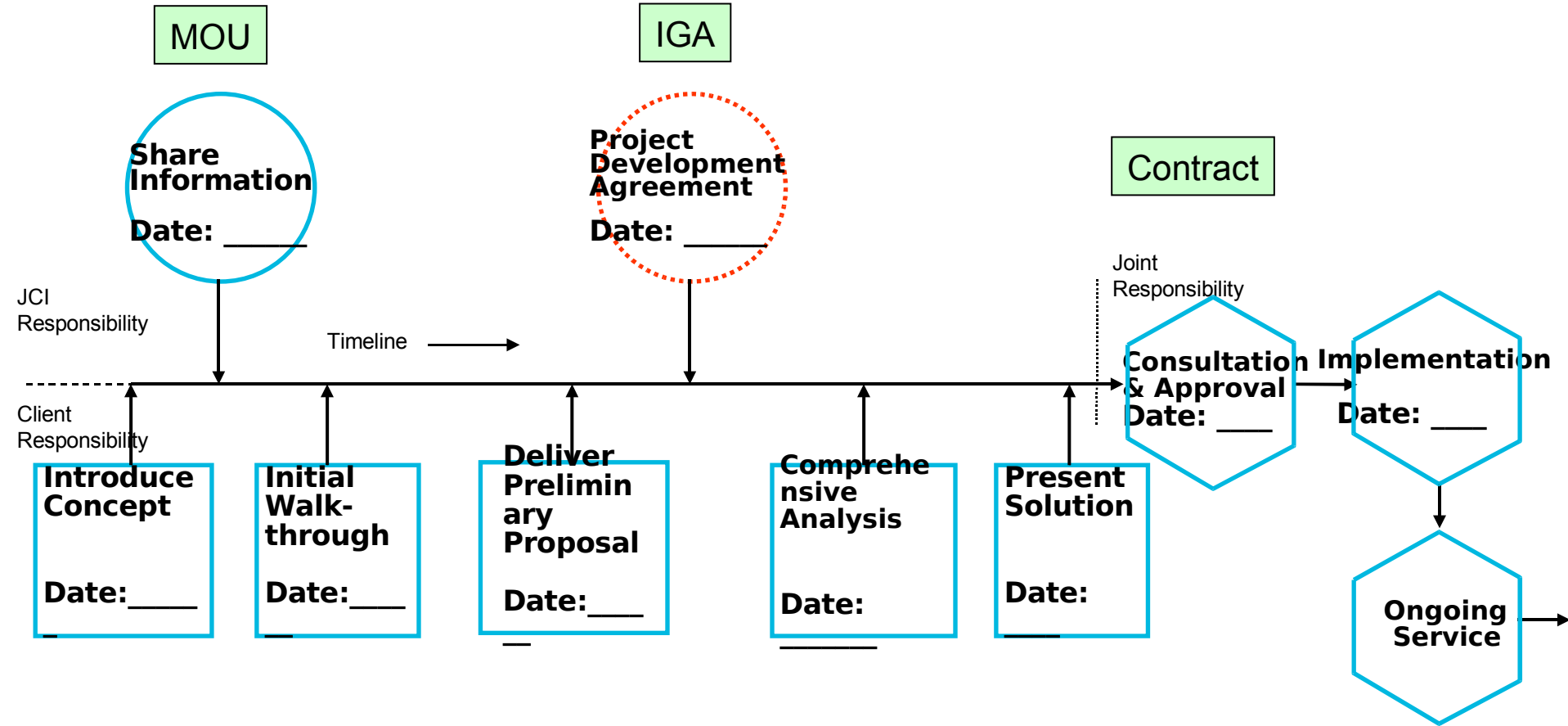
- ❖ A procurement mechanism for acquiring comprehensive Facility Improvement Measures (FIMs) and Services
- ❖ Financed through third party loans (banks) that are paid back from energy & operational savings resulting from FIMs
- ❖ Cash Flows should cover all costs including cost of financing, service, measurement & guarantees
- ❖ Project Savings and costs are guaranteed by ESCOs



# Sustainability Model through ESCO & CCI



# Business Process



# Technology Analyzed



<b>Lighting Improv'm' ts</b>	<b>Electric Motor Upgrades</b>	<b>Facility Manage ment System</b>	<b>Water Conserva tion</b>	<b>Building Envelope Modificat 'n</b>	<b>Indoor Air Quality</b>
<b>Chiller Improv'm' ts</b>	<b>Thermal Energy Storage</b>	<b>HVAC Upgrades</b>	<b>Electrical or Co- Gen Plants</b>	<b>Utility Deregula tion</b>	<b>Maintena nce Manage ment</b>
<b>Variable Speed Drives</b>	<b>Boiler &amp; Furnace Improv'm' ts</b>	<b>Renewab le Energy</b>	<b>Process Improv'm' ts</b>	<b>Compres sed Air Optimiza tion</b>	<b>LEED</b>

# Our Experience with CCI in Asia



## ❖ Inorbit Mall (Raheja Corp) – Mumbai

- 1<sup>st</sup> CCI Project Globally. Largest shopping mall in Mumbai. Part of Raheja Corp, one of the premier developers in India.



## ❖ International School of Bangkok – Bangkok

- Premier International School in Bangkok. 14 hectare campus, established in 1951, serving children from over 50 countries.



## ❖ Bangkok Patana School – Bangkok

- British International school established in 1957 serving over 2100 students from over 53 countries.



## ❖ Victoria Department of Treasury & Finance – Melbourne

- 16 state historical and office buildings in Melbourne. 1<sup>st</sup> CCI project in Australia.



# Johnson Controls



**\$34.6 Billion**  
**Company**

*Founded in 1885*



- 140,000+ employees, 1300+ facilities
- 125 countries, #67 on Fortune 500 companies
- Ranked **67 on the Fortune 500** and listed as one of Fortune's Most Admired Companies
- Five-time winner of Industry Week's **100 Best-Managed Companies**
- 2004 Gold Medal for International Corporate Achievement **Sustainable Development**
- 2005 **Climate Protection Award** – US EPA
- 2001 **Energy Star Buildings** Partner of the Year
- 1999 US Department of Energy "**Energy Star Ally** of the Year"
- Brengel Technology Center – one of the **first Green Buildings** in the USA



Perfect Score  
Corporate Governance



**Mission:** A more comfortable, safe and sustainable World

# Three World-Class Businesses



## Building Efficiency

- Creating quality indoor environments that are energy efficient, comfortable and safe



Building Efficiency

## Power Solutions

- Providing the highest quality, lowest cost automotive batteries to help customers grow their market shares



Power Solutions

## Automotive Experience

- Delivering world-class technologies that differentiate vehicle interiors and increase consumer demand



Automotive Experience

# Building Efficiency Solutions



## Integrated Real Estate and Facilities Management



### Integrated Services

- Portfolio & Asset Mgmt
- Strategic Consulting
- Acquisition & Disposition
- Design & Construction
- Facilities Management
- Energy Management
- Workplace Technologies
- Information Management
- GHG Emissions Inventory & Mgmt
- Strategic Sustainability Planning

## HVAC Systems and Products



### Full Line of HVAC Equipment

- Chillers
- Air Handlers
- VAV
- Dampers
- Valves & Actuators
- Fans
- Packaged/Rooftop
- Technology Systems
- Sensors & Stats

## Building Management and Security Systems



### Building Mgmt. Systems

- Offices
- Retail
- Manufacturing
- Industrial Plants
- Research & development
- Hospitals
- Data Centers

## Technical and Maintenance Services



### Facility Services

- Performance contracting
- Operations & Maintenance
- Systems integration
- Facility Support Services
- HVAC Retrofit Projects

## Corporate Energy Services



### Energy Planning & Program Management

- Energy Efficiency
- Energy Supply
- Energy Information
- Regulatory Compliance
- Energy Star Certification
- LEED & Green Consulting

# Johnson Controls India Overview



Incorporated in 1996

100% owned subsidiary of JCI

More than 700 Experts

9 branch offices in major cities

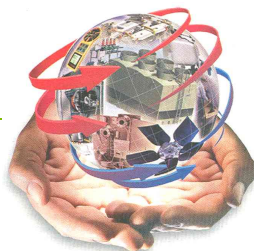
Over 300 Systems Installations

Won several awards for Innovation and Customer Care.

The 1st Company to set up a mid market chiller plant in the country.

Tata Johnson Controls - Automotive JV with Tata.

Equity partnership with Amara Raja Batteries – 'Amaron'



# Creating a more safe, comfortable and sustainable world



## Home

- Connectivity to the car
- Energy-efficient heating and air conditioning
- Green refrigerants

Creating smart environments  
Bringing ingenuity to the places where people live, work and travel



## Car

- Lead-acid battery recycling
- Hybrid battery technology
- Seating made from natural materials
- Lightweight Interior components using recycled materials



## Workplace

- Advanced control systems
- Green, energy-efficient solutions
- Renewable energy projects