Enabling Uptake of District Cooling System in India

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Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

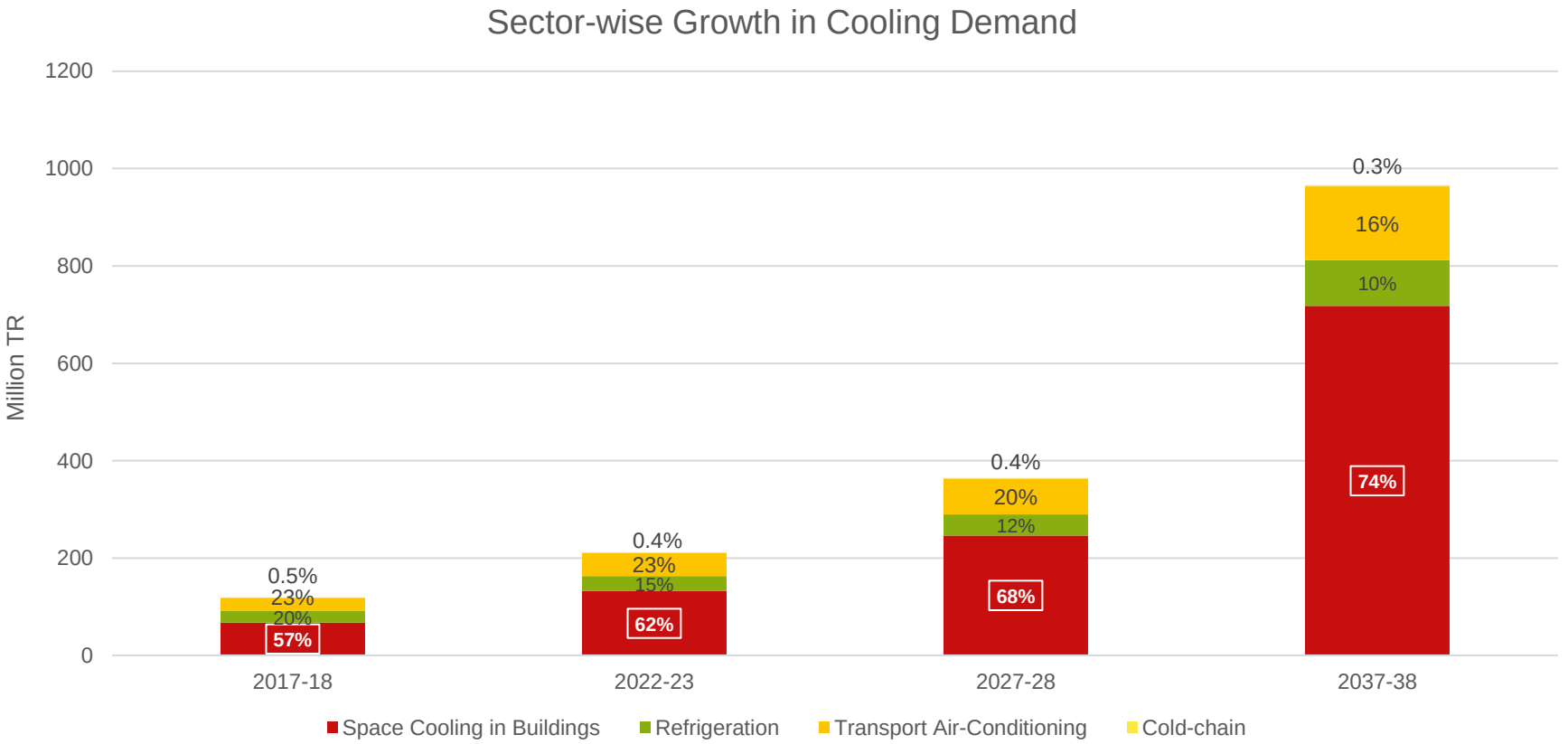
On behalf of

Federal Ministry for Economic Affairs and Climate Action

of the Federal Government of Germany

Alliance for an Energy Efficient Economy

Background



8X growth in cooling demand in 2 decades
Maximum share is from Space Cooling in Buildings

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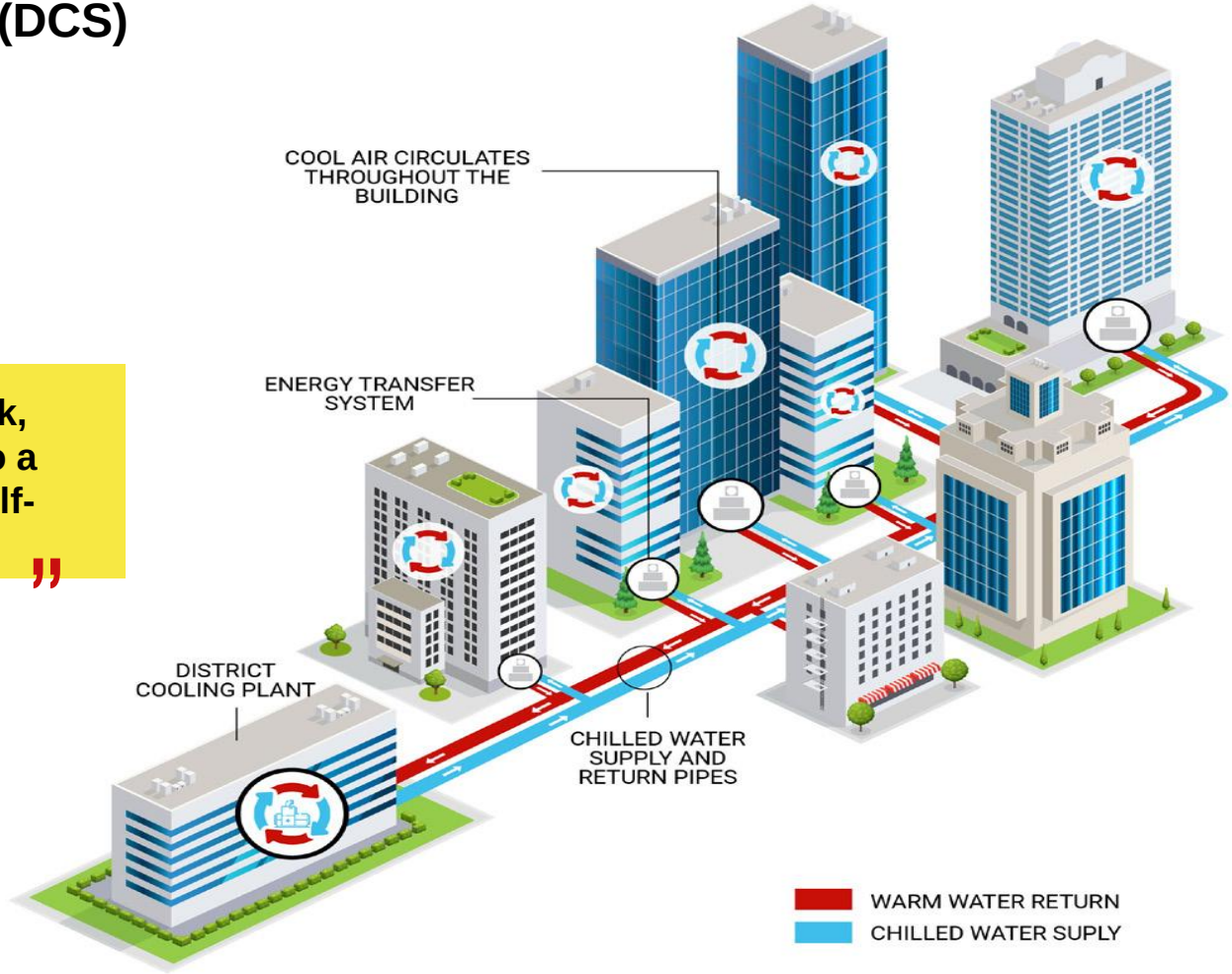
District Cooling System (DCS)

> **“One Single Cooling Network, Distributing Chilled Water to a Cluster of Buildings as a Self-Sustaining Service”**



On-Going District Cooling Projects in India

S. No.	Description	Status
1	GIFT City	• **In operation since 2015** • **Total Demand of 240,000 TR met by 180,000 TR** • **Digging-free policy and planned underground utility corridor** provides with easy access and low maintenance and operations issues • **Standard operational policies and procedures** were setup in advance
2	Hyderabad Pharma City	**Tender has been floated** for development of 3 DC Projects for the Hyderabad Pharma City
3	IIT Delhi	**Feasible –** *Discussion in advanced stages. IIT Delhi's proposal for conducting DCS pre-feasibility for IIT Delhi campus under review*
4	Jewar Airport	**Identified** – *Discussion held with Shri Ashish Tiwari, Secretary, DoEF&CC, UP*

Other projects that have been in consideration: *Dholera Smart City, Pune Medicity, Silicon Valley Tech Hub in Kolkata, Central Vista, CPWD Ghitorni Complex*

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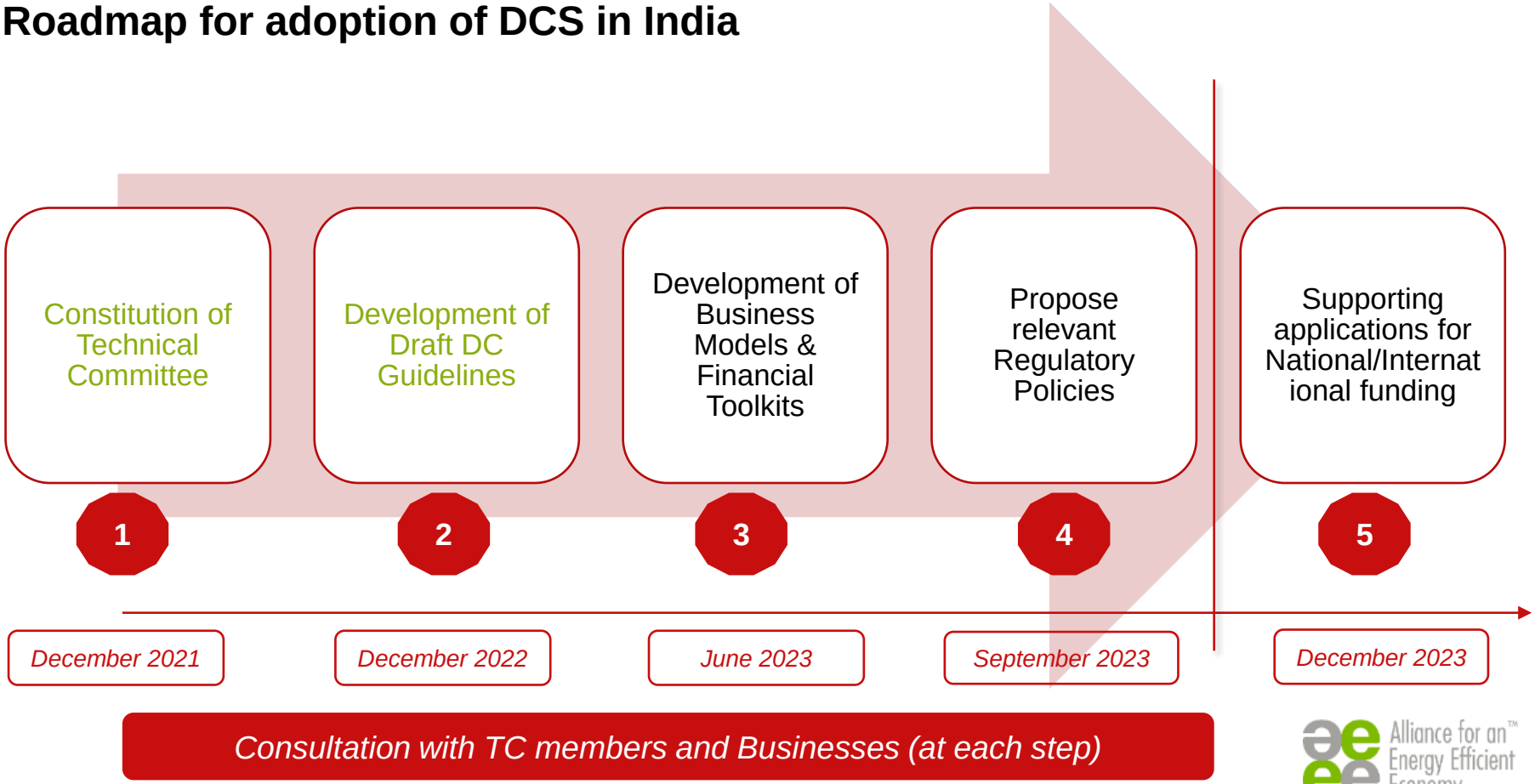
Roadmap for adoption of DCS in India



Key Highlights – District Cooling Guidelines

Objectives of District Cooling Guidelines

Define District Cooling Systems (DCS) in the Indian context, along with its environmental, societal and economic benefits

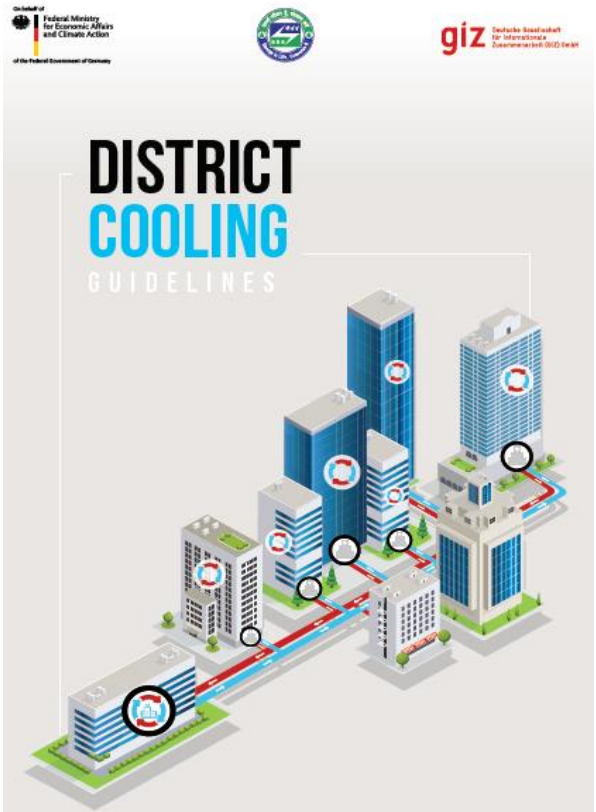
Act as an information handbook on DCS for a range of stakeholders, including state and city development authorities, developers, and investors

Provide guidance on DCS scope, planning, construction, O&M, measurement and billing systems, business models, bidding choices, and other enabling mechanisms

Present roles and responsibilities of key stakeholders in DCS in India

Recommend state-level actions that can be adopted to promote DCS

Provide case studies of operational DCS projects in India



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Enabling Actions Identified

Considering DC as a utility: One of the most important enabling actions by the government would be to consider designating DC service as a utility. It would be best if any applicable tax and incentives for DCS be treated on par with other public utilities such as PNG, electricity, and water.

Fairness and transparency in DC tariffs for Cooling as a Service (CaaS): The government should consider providing concrete guidance on DC tariffs to ensure fairness and transparency for all three key players, i.e., end-customers, real estate developers, and DC service providers.

Competitive electricity and water tariffs for DCS: The electricity and water tariffs for the DC companies serving both commercial and residential buildings should be commensurate with prevailing tariffs for similar category of consumers. It maybe appropriate to make DCS a separate consumer category for deciding on tariffs.

Considering Sustainable Cooling as a basic necessity: Laying out Policy Mandates for consideration of cooling in the large infrastructural developments through Municipal norms, Environmental clearance regulations and issuing policies for provision of cooling in residential projects.

> **“Regulatory Mechanism can propel the adoption of DCS In India”**

Way forward

DC Guideline Launch and Dissemination
Conducting 2nd GIFT City Study Tour for Key Government Stakeholders
Planning for International Study tour to Dubai/ Malaysia/ Singapore for Key Government Stakeholders
International Conference in India focusing on DCS
Business & Finance Model Toolkit Development
Strategic Roadmap for DCS adoption in India
Exploring potential for participation at COP 28
Establishment of DC Knowledge Center

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Thank You

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