प्रधान मंत्री आवास योजना-शहरी
Pradhan Mantri Awas Yojana-Urban

GLOBAL HOUSING TECHNOLOGY CHALLENGE INDIA

Ministry of Housing and Urban Affairs
Government of India

Azadi Ka Amrit Mahotsav

bmtpc

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

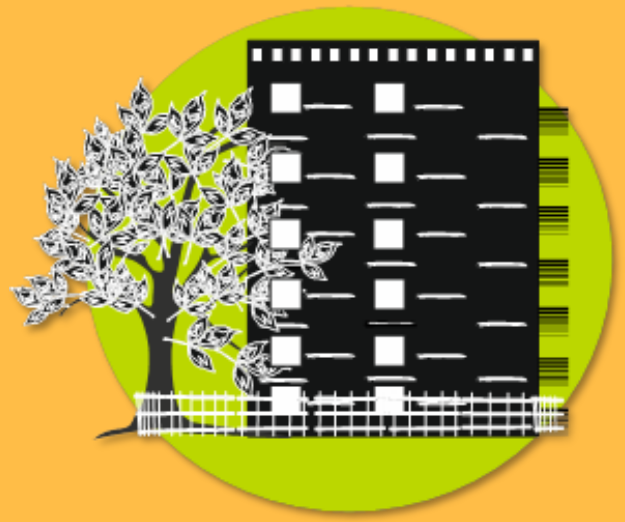
Impact of Implementing Design Standard for Thermal Comfort Performance

Date | Place

eds environmental design solutions

Wuppertal Institut

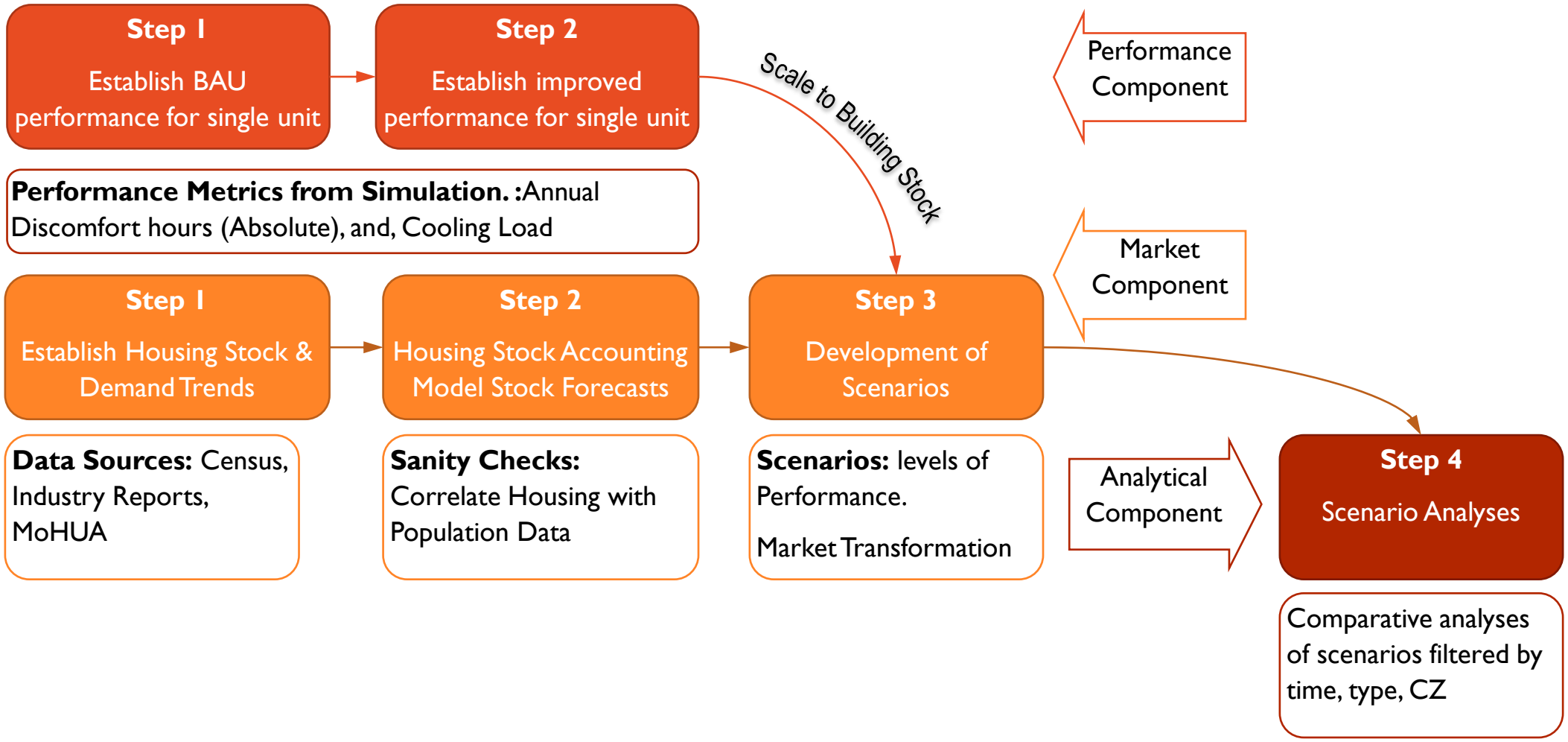
hunnarshālā FOUNDATION



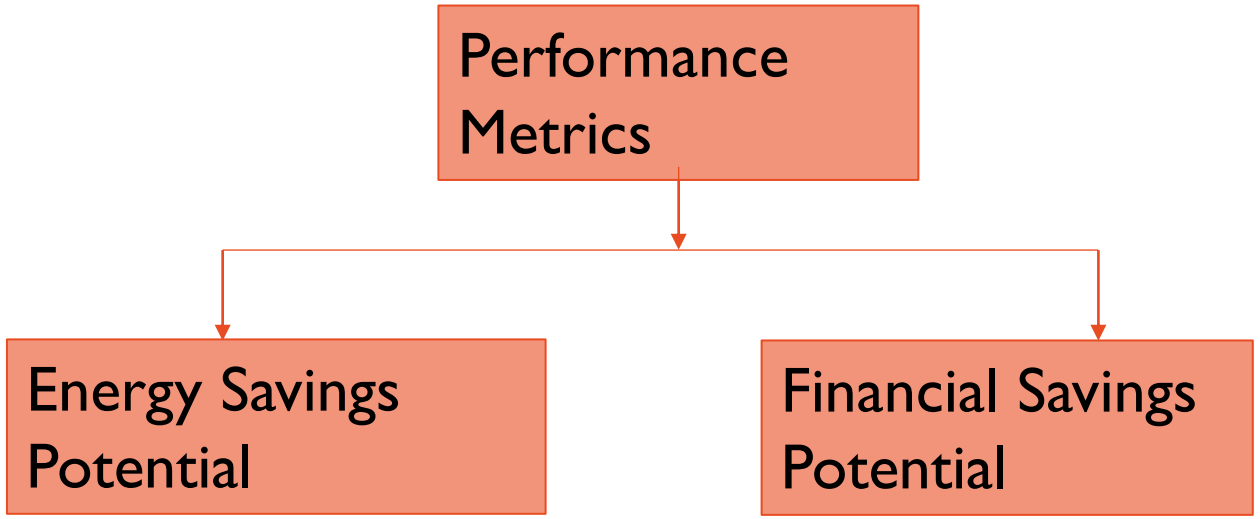
Model Framework

Bottom-Up Approach

Model Architecture



Performance Metrics

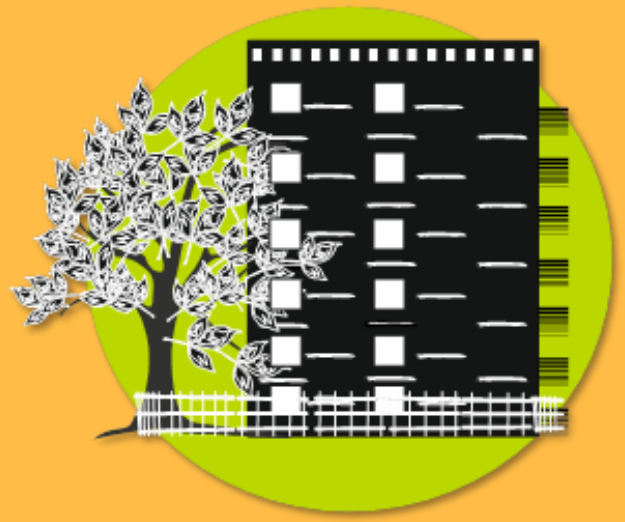


- Energy Use Savings
- Demand Abatement
- GHG Emission Reduction

- Energy Use Cost Savings
- Demand Infrastructure Cost Savings

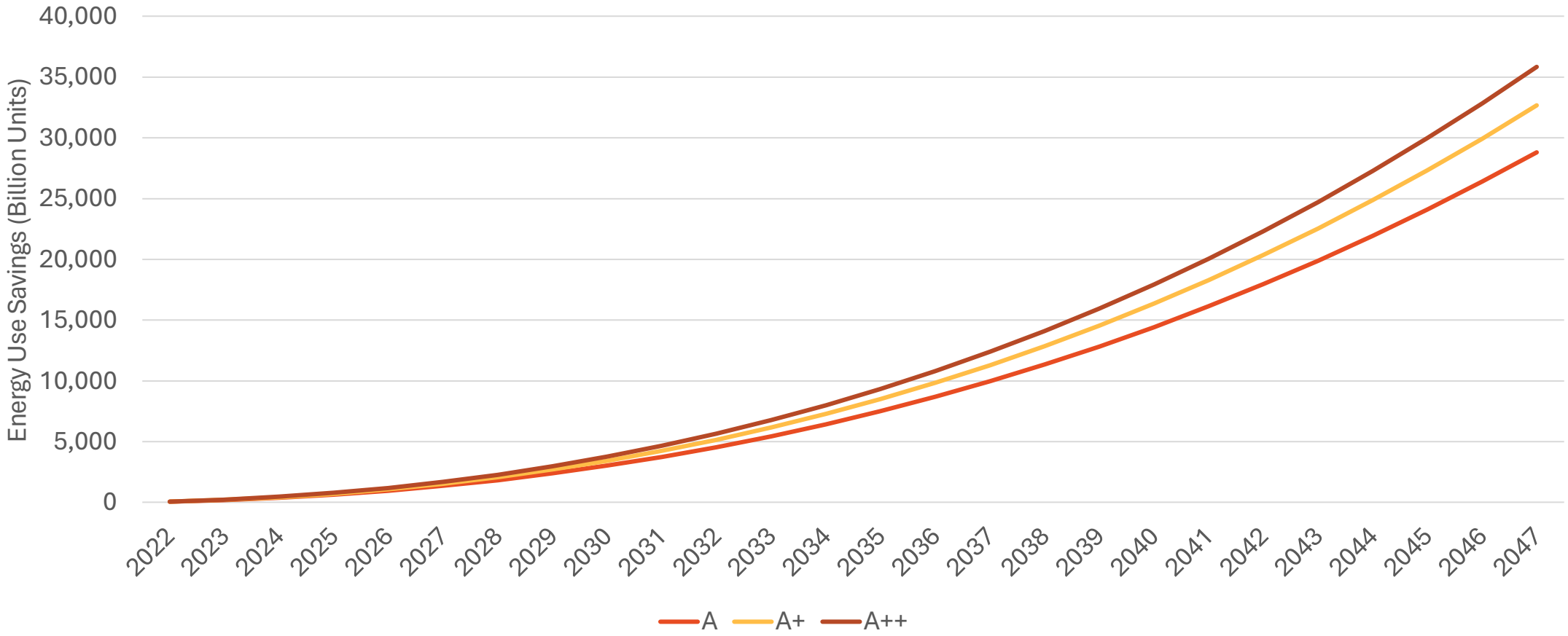
Scenarios

1. BAU: The Business as Usual (BAU) case is representative of the current building stock. The BAU case assumes prevalent construction practices.
2. A: The A case outlines the minimum effort required to meet the comfort levels corresponding to "A" compliance.
3. A+: the A+ case outlines thermal comfort and energy performance beyond code minimum code requirements.
4. A++: The A++ case outlines maximum levels of thermal comfort achievable or best available technology scenario representative of maximum achievable thermal comfort.

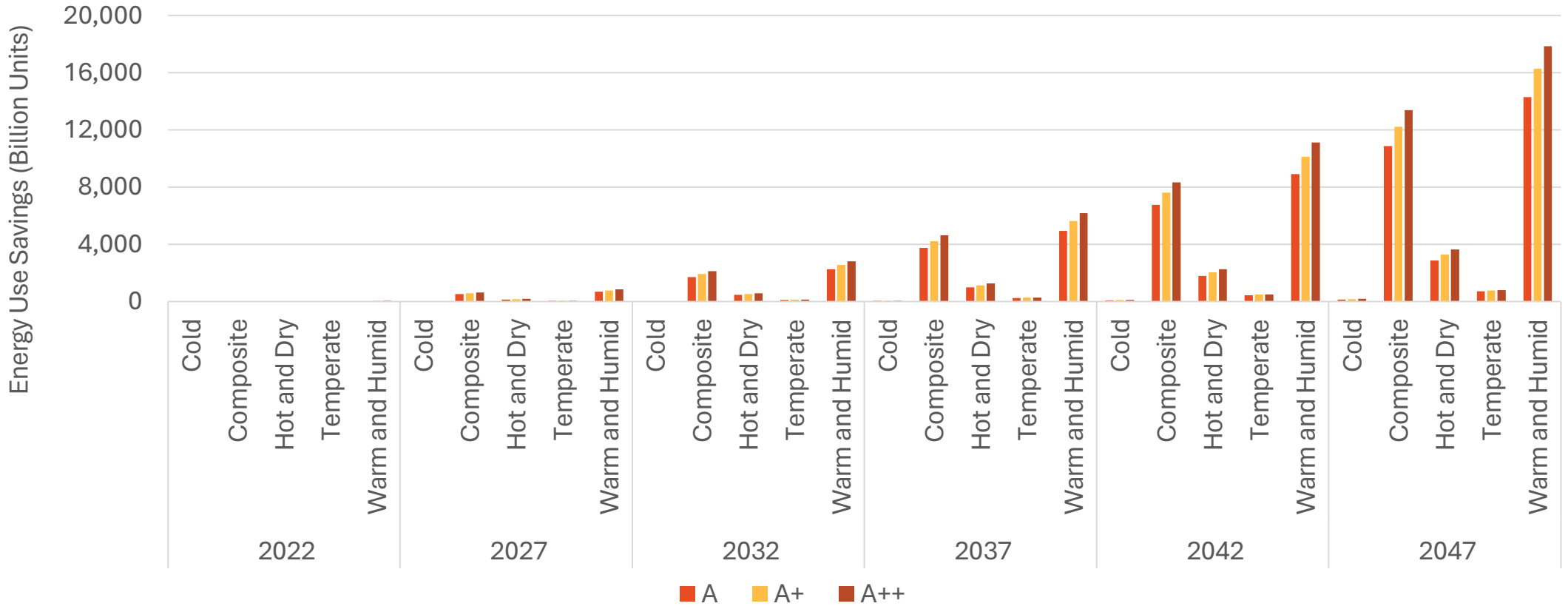


Outcomes

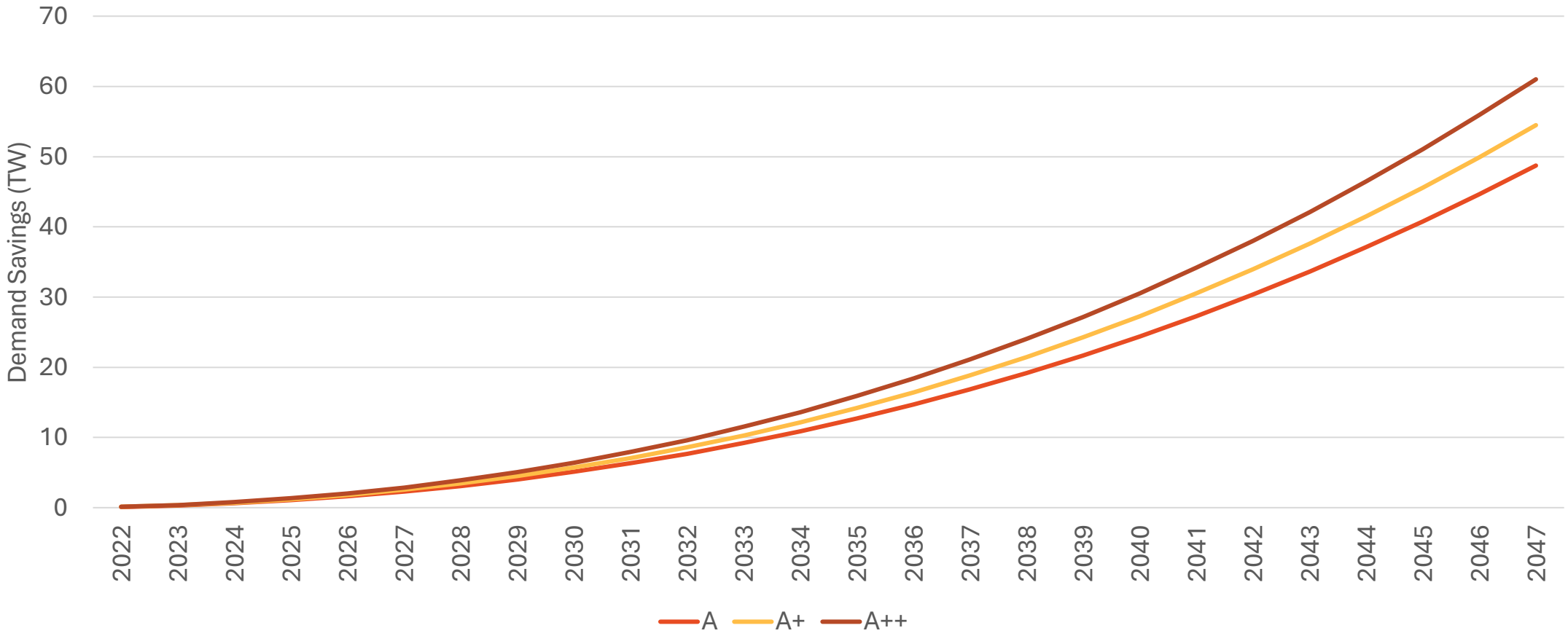
Energy Use Savings (in Billion Units)



Energy Use Savings (in Billion Units) by Climate



Cooling Demand Savings Potential (in TW)



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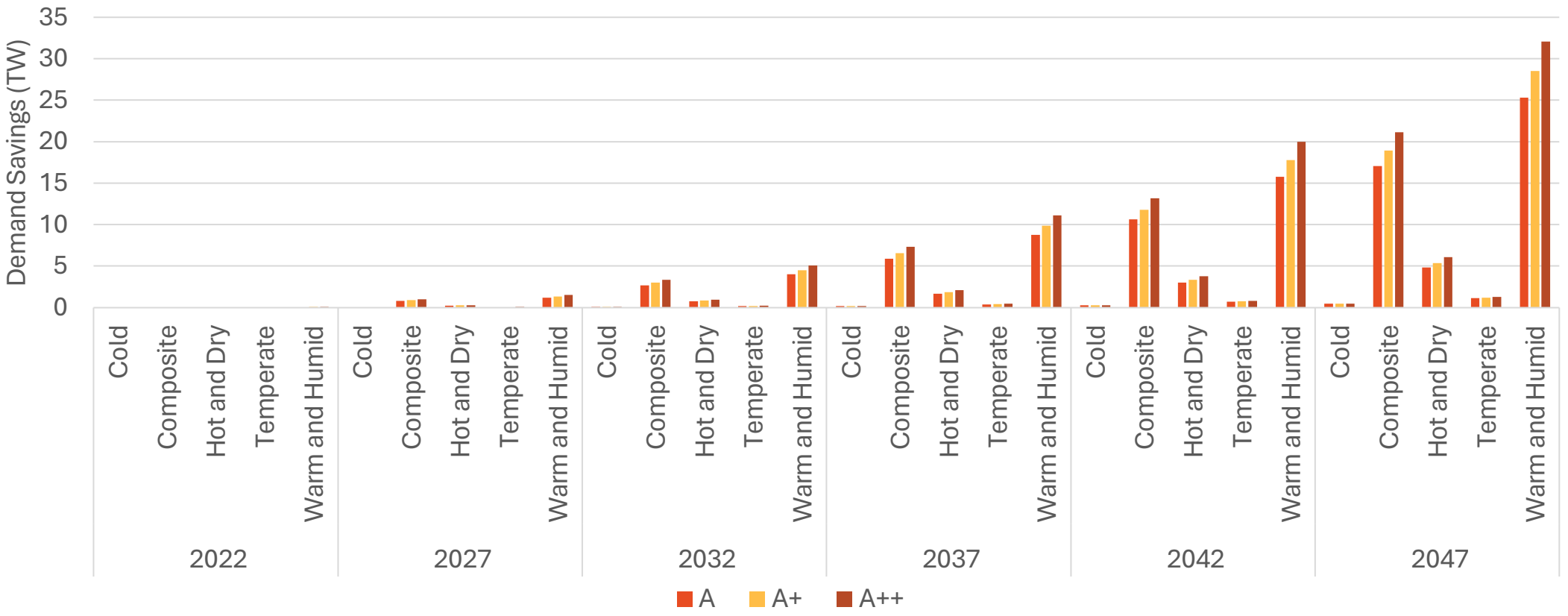
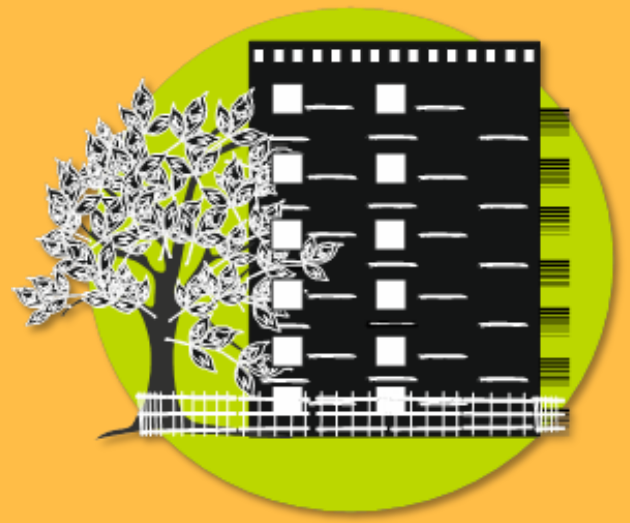


Parameter	Level A	Level A+	Level A++
Energy Use (Billion Units)	28,823	32,679	35,834
Demand Avoided (TW)	48.74	54.49	61.04
GHG Abatement Potential ($mtCO_2e$)	23.06	26.14	28.67
Energy Use Cost Saving Potential (Lakh Crores INR)	86.49	98.03	107.50
Investment in Demand Infrastructure Savings (lakh crores INR)	201.31	227.81	261.38

Parameter	Units	Climate Zone	Savings Potential
Energy Use Savings Potential	Billion Units	Warm-Humid	14,228
Energy Demand Abatement Potential	TW	Warm-Humid	25.30



Thanks!