ClimateWorks 2020 Gigatonne Scorecard
November 29, 2012
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Agenda:

1. Introduction to the ClimateWorks Network

2. Initial conclusions of the 2020 Gigatonne Scorecard

3. ClimateWorks “Sudoku”
   - Potential ranges of technical abatement
   - Understanding and evaluating policy progress

4. Key takeaways and next steps: we seek others' engagement to improve our process, methodology, and results.

The ClimateWorks Network

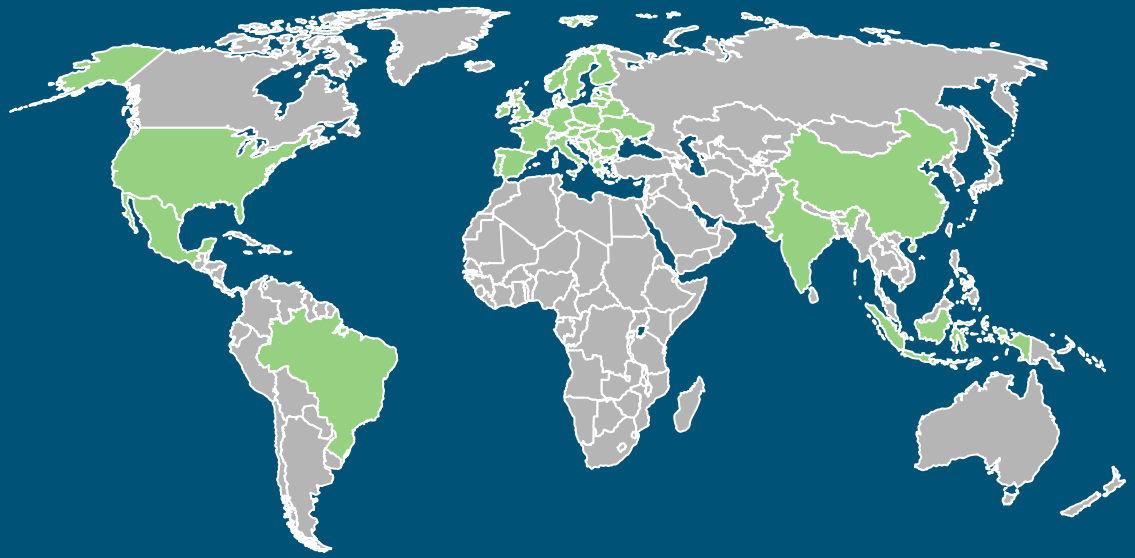
The Energy Foundation

European Climate Foundation

The China Sustainable Energy Program

LATIN AMERICA PROGRAM

SHAKTI SUSTAINABLE ENERGY FOUNDATION



POWER

BUILDINGS & APPLIANCES

INDUSTRY

TRANSPORT

FORESTS & LAND USE

RAP

clasp

GLOBAL BUILDINGS PERFORMANCE NETWORK

Institute for Industrial Productivity

ITDP

icct

Climate and Land Use Alliance

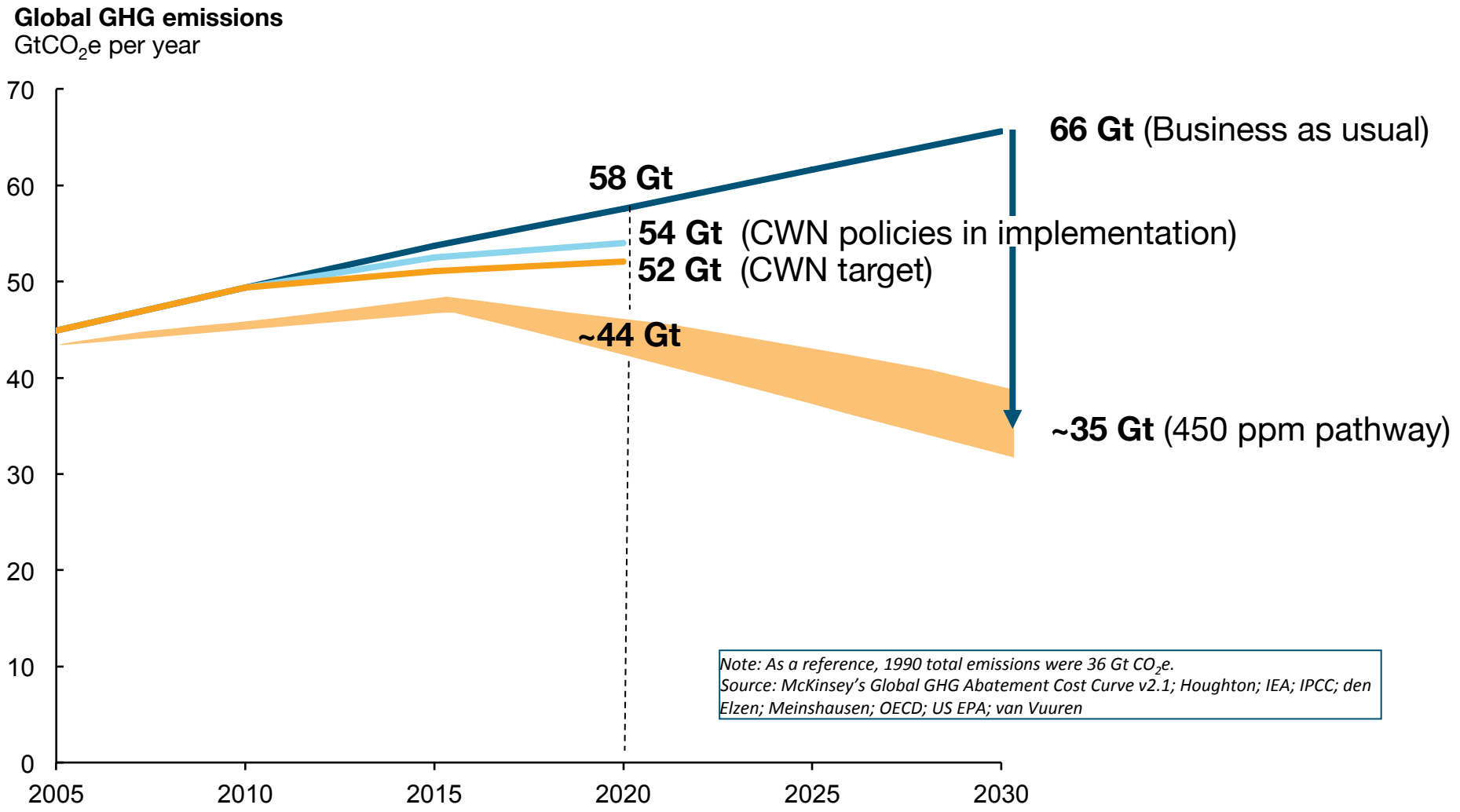
Initial Conclusions

- National and sector policies adopted and in development since ~2008 are **making significant progress** towards achieving identified technical abatement potential.

- But analyzed progress is **insufficient** to maintain an emissions pathway consistent with 2°C of warming or less, even if completely successful.

- We **continue to learn and improve** on our process, methodology, and results

Global Business as Usual vs. 450 ppm Pathway



Context

Technical Abatement Potential

ClimateWorks “Sudoku”

How we use this information

Technical Abatement Potential Ranges (Gt CO_2e in 2020)

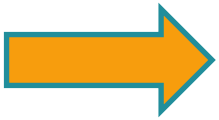
	Power	Buildings	Appliances	Industry	Vehicles & Fuels	Transport Systems	Forests	ADJUSTED TOTAL
U.S.	0.6-1.0	0.2	0.1-0.2	0.2-0.3	0.2-0.3			1.4-1.9
E.U.	0.3-0.4	0.2	0.1		0.1-0.3			0.7-0.8
China	0.6-1.3	0.1-0.2	0.1-0.4	1.0-1.7	0.1-0.3	0.1-0.2		2.5-3.4
India	0.1-0.3	0.01-0.03	0.04-0.1	0.2-0.3	0.03-0.04	0.03-0.04		0.5-0.7
Brazil & Mexico					0.05	0.02-0.05	1.6-1.7	1.7-1.8
Indonesia							1.1	1.1
TOTAL	1.9-2.9	0.5-0.6	0.3-0.8	1.4-2.1	0.7-0.8	0.2-0.3	2.7-2.8	8.2-9.1

Note: All estimates are rounded, consistent with their degree of precision. Totals may not add up exactly due to rounding.

Technical Abatement Potential: Example

Power

U.S. 0.6-1.0



0.6

0.8-1.0

0.8-0.9

ClimateWorks analysis of technical abatement potential (~2008)

ClimateWorks analysis of technical abatement potential (~2012)

Peer-calculated technical abatement potentials (~2012)

How we understand and evaluate progress

Technical Abatement Potential

Policies in Implementation

ClimateWorks Network Targets

ClimateWorks 2020 Gigatonne Scorecard:

xx-XX:

Technical Potential Range

(yy,YY):

Policies in Implementation since ~2008

[zz,ZZ]:

ClimateWorks Strategy Target

ClimateWorks 2020 Gigatonne Scorecard:

India Appliances

0.02-0.1
(0.06,0.09)
[0.08,0.1]

Technical Abatement Potential

- Largest potential is from lighting, water heating, air conditioning and refrigeration, though electronics' potential will grow over time.

Policies in Implementation

- Super Efficient Equipment Program; mandatory standards for lighting, labeling for boilers, inverters, fans, air conditioners, refrigerators, etc.

ClimateWorks Strategy Target:

- Techno-economic studies; develop voluntary standards and labeling programs and shepherd through to mandatory standards; ratchet stringency over time. Agency issues and lack of information are often barriers to capture abatement potential.

ClimateWorks 2020 Gigatonne Scorecard:

China Transport Systems

0.1-0.2 (0.01,0.02) [0.07,0.1]

Technical Abatement Potential

- Achieved primarily by reducing future travel demand while maintaining services, and shifting to lower-carbon modes; highly sensitive to growth and travel assumptions.

Policies in Implementation

- 3000 km of BRT included in 12th FYP, followed by National Guidance on Implementation of Strategy on Urban Public Transport Priority Development

ClimateWorks Strategy Target

- Joint efforts with cities to encourage green neighborhoods, design and planning of major BRT systems, demand-side management policies, parking reforms. Gt target may be higher, depending on growth assumptions

ClimateWorks 2020 Gigatonne Scorecard: Abatement Potential, Policies in Implementation and Targets (Gt CO_2e)

	Power	Buildings	Appliances	Industry	Vehicles & Fuels	Transport Systems	Forests	Air Quality & Short Lived Forcers	ADJUSTED TOTAL
U.S.	0.6–1.0 (0.5,0.7) [0.5,0.8]	0.2 (0.02,0.06) [0.07,0.3]	0.1-0.2 (0.04,0.07) [0.09,0.2]	0.2-0.3 (NA) [0.06,0.2]	0.2-0.3 (0.2, 0.3) [0.2,0.3]				1.4-1.9 (0.8,1.1) [0.9,1.3]
E.U.	0.3-0.4 (0.2,0.3) [0.4,0.5]	0.2 (0.08,0.2) [0.08,0.2]	0.1 (0.07,0.1) [0.07,0.1]		0.1-0.3 (0.09,0.1) [0.3,0.3]				0.7-0.8 (0.4,0.7) [0.8,1.0]
China	0.6–1.3 (0.6,1.0) [0.7,0.7]	0.1-0.2 (0.03,0.05) [0.08,0.2]	0.1-0.4 (0.1,0.2) [0.1,0.1]	1.0–1.7 (1.0,1.1) [1.2,1.4]	0.1-0.3 (0.1,0.2) [0.2,0.3]	0.1-0.2 (0.01,0.02) [0.07,0.1]		TBD (TBD) [0.2,0.4]	2.5–3.4 (1.9,2.6) [2.6,3.1]
India	0.1-0.3 (0.01,0.02) [0.1,0.3]	0.01-0.03 (NA) [0.01,0.02]	0.02-0.1 (0.06,0.09) [0.08,0.1]	0.2-0.3 (0.02,0.02) [0.1,0.3]	0.03 -0.04 (NA) [0.02,0.05]	0.03-0.04 (NA) [0.003,0.006]			0.5–0.7 (0.09,0.1) [0.4,0.8]
Brazil & Mexico					0.05 (NA) [0.008,0.01]	0.02-0.05 (NA) [0.005, 0.01]	1.6-1.7 (0.9,1.0) [0.9,1.0]		1.7-1.8 (0.9,1.0) [0.9,1.1]
Indonesia							1.1 (NA) [0.1,0.4]		1.1 (NA) [0.1,0.4]
Global					0.2 (NA) [0.1,0.2]			TBD (TBD) [0.08,0.2]	0.2 (NA) [0.2,0.4]
TOTAL	2.1–2.9 (1.3,2.1) [1.7,2.4]	0.5–0.6 (0.1,0.3) [0.2,0.7]	0.3-0.8 (0.3,0.5) [0.4,0.6]	1.4-2.1 (1.0,1.1) [1.4,1.9]	0.9-1.0 (0.4,0.6) [0.8,1.1]	0.2-0.3 (0.01,0.02) [0.08,0.1]	2.7-2.8 (0.9,1.0) [1.0,1.4]	TBD (TBD) [0.3,0.6]	8.2–9.1 (4.0,5.6) [5.9,8.1]

Note: All estimates are rounded, consistent with their degree of precision. Regional and global totals are adjusted for known double counting.

ClimateWorks 2020 Gigatonne Scorecard:

8.2-9.1:

Technical Potential Range

(4.0,5.6):

Policies in Implementation since ~2008

[5.9,8.1]:

ClimateWorks Strategy Target

Key Takeaways:

- Our analysis of expected impact suggests current progress will deliver up to 6 Gt of GHG abatement in 2020 and 11 Gt in 2030 (tentative extrapolation) in the regions where we operate.

- We plan to refine our process and methodology, collaborate more closely with our peers, and fine-tune these results over time.

We want your feedback

How can we engage with others and more effectively align our process, methodology and estimates with other GHG abatement analysis and national climate and energy policy tracking?