



Environmental Energy Technologies Division Lawrence Berkeley National Laboratory

Paris Climate Change Conference COP 21

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Energy Technologies Area

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- Set goal to stabilize GHG concentrations to prevent dangerous anthropogenic interference with the climate system
- Developed countries to lead
- Established Conference of the Parties (COP) meetings

- Commitment period 2008-2012
- Commitments only for developed countries
- CDM and JI mechanisms
- Not approved by US Congress

- Introduced pledge and review process
- Considered a failure due to poor Danish management, bad set-up/environment, China's obstinence

⑩ Significant French preparation effort

- High level involvement: President Hollande, Foreign Minister Laurent Fabius
- Full engagement of French embassies
- No internal divisions in French team
- High degree of transparency – communiques of all meetings, information shared electronically on a daily basis
- Care taken to ensure participants had a pleasant experience



⑩ Heads of state meeting at start of COP – delivered strong expectations for success

⑩ Strong buy-in from participating countries – most submitted goals prior to Paris meeting

⑩ Supportive US bilateral diplomacy prior to the COP



November 2014

US-China Joint Announcement on Climate Change

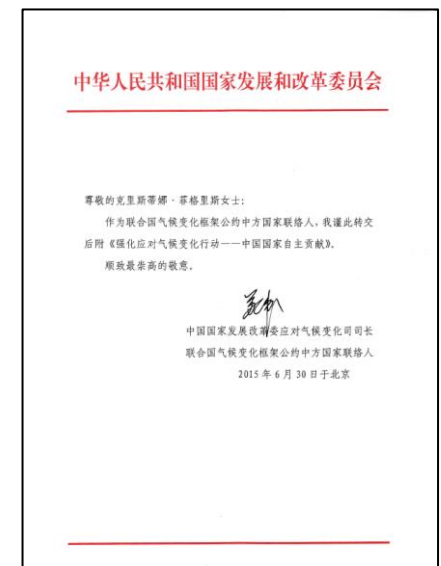
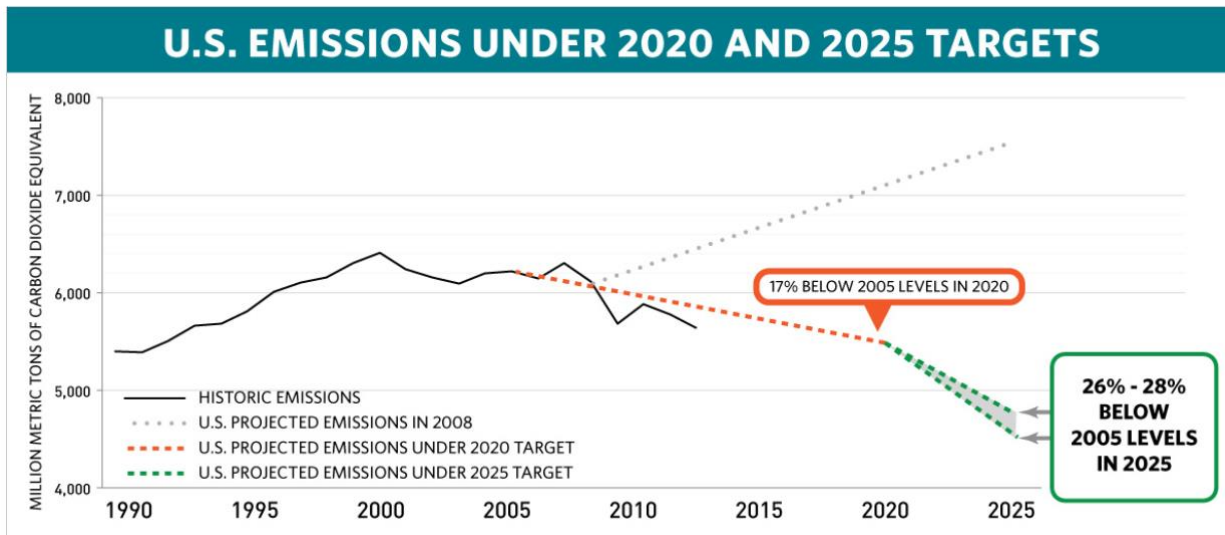
The United States intends to achieve an economy-wide target of reducing its emissions by 26%-28% below its 2005 level in 2025 and to make best efforts to reduce its emissions by 28%.

China intends to achieve the peaking of CO₂ emissions around 2030 and to make best efforts to peak early and intends to increase the share of non-fossil fuels in primary energy consumption to around 20% by 2030.

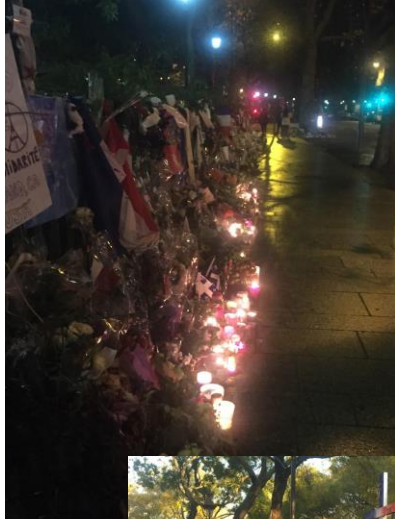
Both sides intend to continue to work to increase ambition over time.

Countries Submitted Goals Prior to the COP

- All participating countries were asked to submit Intended Nationally Determined Contributions (INDCs) prior to the COP meeting in Paris
- U.S. submitted INDCs in March 2014
- China submitted INDCs in June 2014
- 187 of 196 UNFCCC parties submitted INDCs before COP21



Paris Terrorist Attacks November 13th



- ⑩ Largest number of participants in UNFCCC history
 - 30,372 total: 19,210 government, 2008 IGOs, 6306 NGOs, 2798 media
- ⑩ Largest COP venue
- ⑩ Largest number of heads of state (150) under one roof in world history



COP 21 in Paris



Announcement of Berkeley-Tsinghua Joint Research Center on Energy and Climate Change



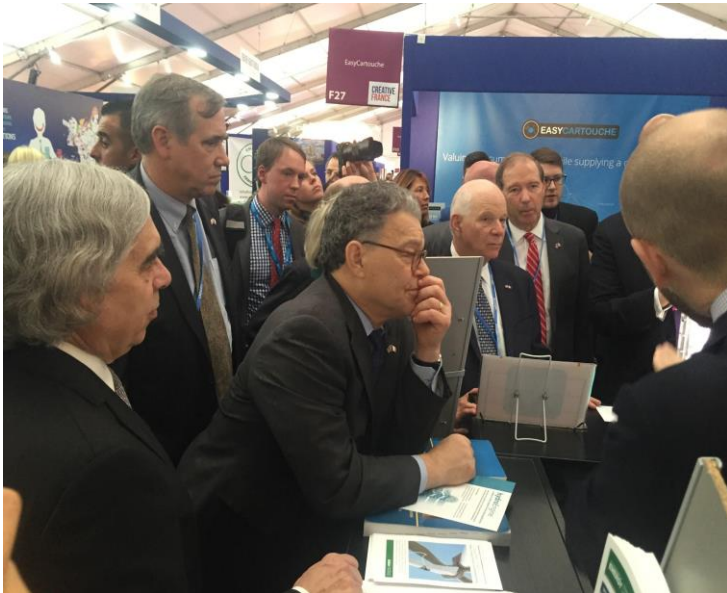
Side Events



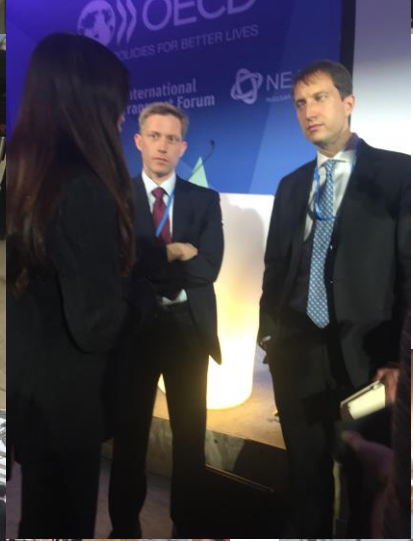
Cities Day at Hotel de Ville



Secretary Moniz and U.S. Senators at DOE Booth




COP 21 in Paris - A Place to Meet People




COP 21 in Paris - Paris Agreement!





United Nations
Framework Convention on
Climate Change



FCCL/CP/2015/L.9
Date: Limited
12 December 2015
Original: English

Conference of the Parties
Twenty-first session
Paris, 30 November to 11 December 2015
Agenda Item 4(b)
Durban Platform for Enhanced Action (decision 1/CP.17)
Adoption of a protocol, another legal instrument, or an
agreed outcome with legal force under the Convention
applicable to all Parties


ADOPTION OF THE PARIS AGREEMENT


Proposal by the President

Draft decision -/CP.21

The Conference of the Parties,
*Recalling decision 1/CP.17 on the establishment of the Ad Hoc Working Group on
the Durban Platform for Enhanced Action,*
Also recalling Articles 2, 3 and 4 of the Convention,
*Further recalling relevant decisions of the Conference of the Parties, including
decisions 1/CP.16, 3/CP.16, 1/CP.19 and 1/CP.20,*
*Following the adoption of United Nations General Assembly resolution
A/RES/70/1, "Transforming our world: the 2030 Agenda for Sustainable Development", in
particular its goal 13, and the adoption of the Addis Ababa Action Agenda of the third
International Conference on Financing for Development and the adoption of the Sendai
Framework for Disaster Risk Reduction,*
*Recognizing that climate change represents an urgent and potentially irreversible
threat to human societies and the planet and thus requires the widest possible cooperation
by all countries, and their participation in an effective and appropriate international
response, with a view to accelerating the reduction of global greenhouse gas emissions,*
*Also recognizing that deep reductions in global emissions will be required in order
to achieve the ultimate objective of the Convention and emphasizing the need for urgency
in addressing climate change,*
*Acknowledging that climate change is a common concern of humankind, Parties
should, when taking action to address climate change, respect, promote and consider their
respective obligations on human rights, the right to health, the rights of indigenous peoples,*

OR 15-2191(02)
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PARIS CLIMATE TALKS

Nations Reach Landmark Climate Deal



FRANCOIS GUILLOT/AGENCE FRANCE-PRESSE — GETTY IMAGES

4:53 PM PST | The deal, which required unanimous approval by delegates from around the world, will for the first time commit nearly every country to lowering greenhouse gas emissions.

GRAPHIC

Key Points of the Agreement

"Parties recognize the importance of averting,

Quotes – Importance of US-China Joint Announcement

“And then, with our historic joint announcement with China last year, we showed it was possible to bridge the old divides between developed and developing nations that had stymied global progress for so long. That accomplishment encouraged dozens and dozens of other nations to set their own ambitious climate targets. And that was the foundation for success in Paris.”

- President Barack Obama, December 12, 2015

“The China announcement changed everything. It changed people’s thinking about this. Without the China announcement, you wouldn’t have 184 nations ready to come to Paris, the homework done, the table set.”

- John Kerry, US Secretary of State, NYTimes, December 13, 2015

"The joint China-U.S. announcement signals the shared vision and seriousness with which the world's two largest economies are moving to a low-carbon future. It demonstrates strong leadership and momentum for a comprehensive global climate agreement in Paris."

- U.N. Secretary-General Ban Ki-moon, November 29, 2015, Xinhua net

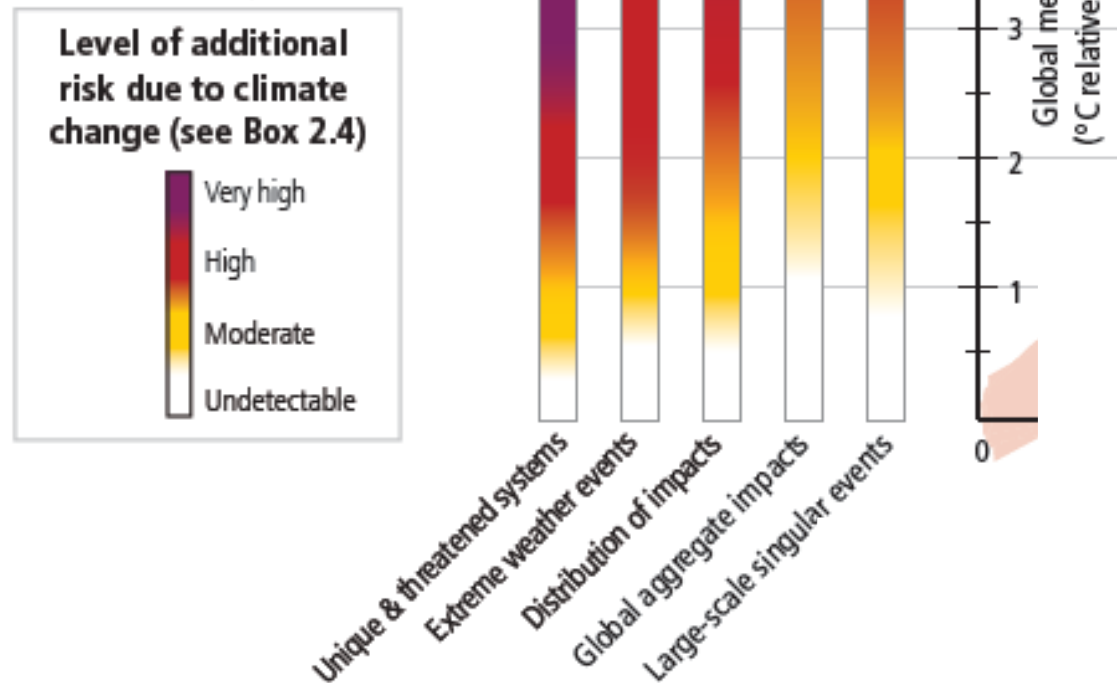
“It was a very specific constellation of events. This doesn’t happen if the French aren’t working on this for a year. It doesn’t happen if Obama doesn’t spend the time building relations with Xi. It doesn’t happen without the Chinese-U.S. announcement. But it represents the biggest shift we have ever seen on this global crisis.”

- Mr. Jim Yong Kim, World Bank president, NYTimes, December 13, 2015



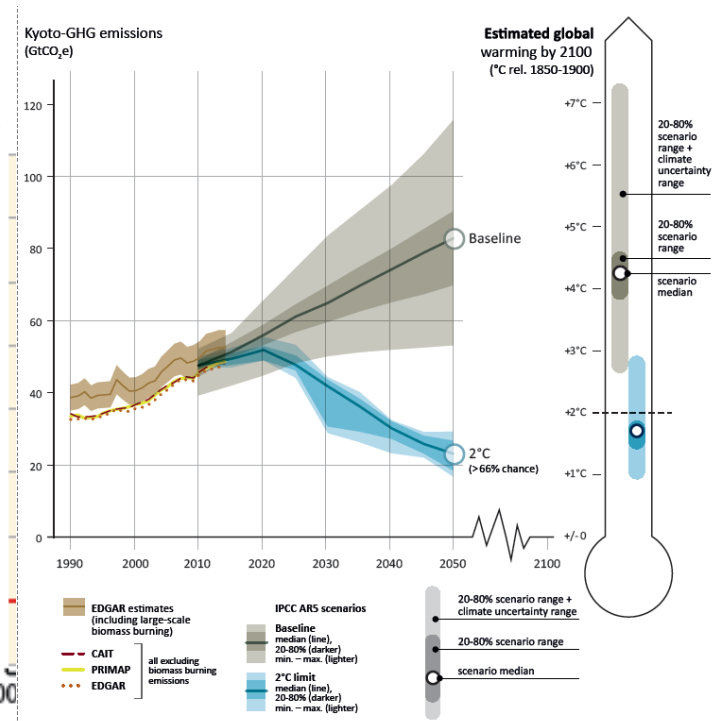
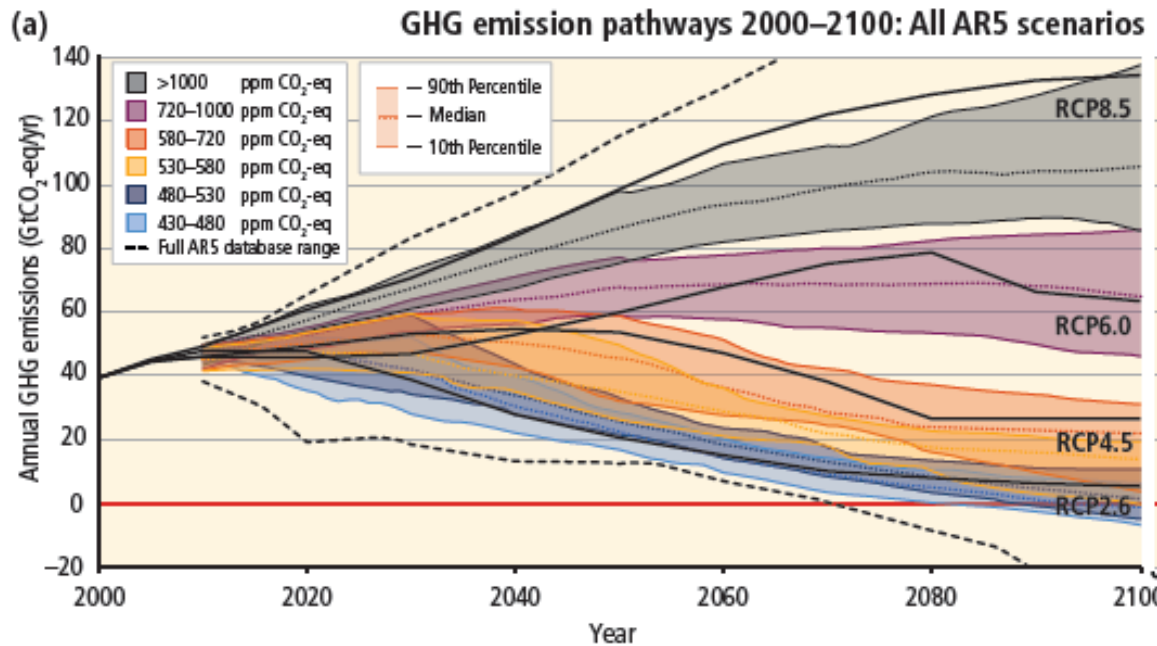
Paris Agreement: Very Ambitious

- Global goal of keeping warming between 2°C and 1.5°C
 - Cumulative global emissions 1870-2011: ~2000 GtCO₂
 - Current annual global emissions = ~50 GtCO₂
 - Remaining emissions budget to reach
 - 2°C target = 1000-1200 GtCO₂ (20-25 years)
 - 1.5°C target = 500-600 GtCO₂ (10 years)



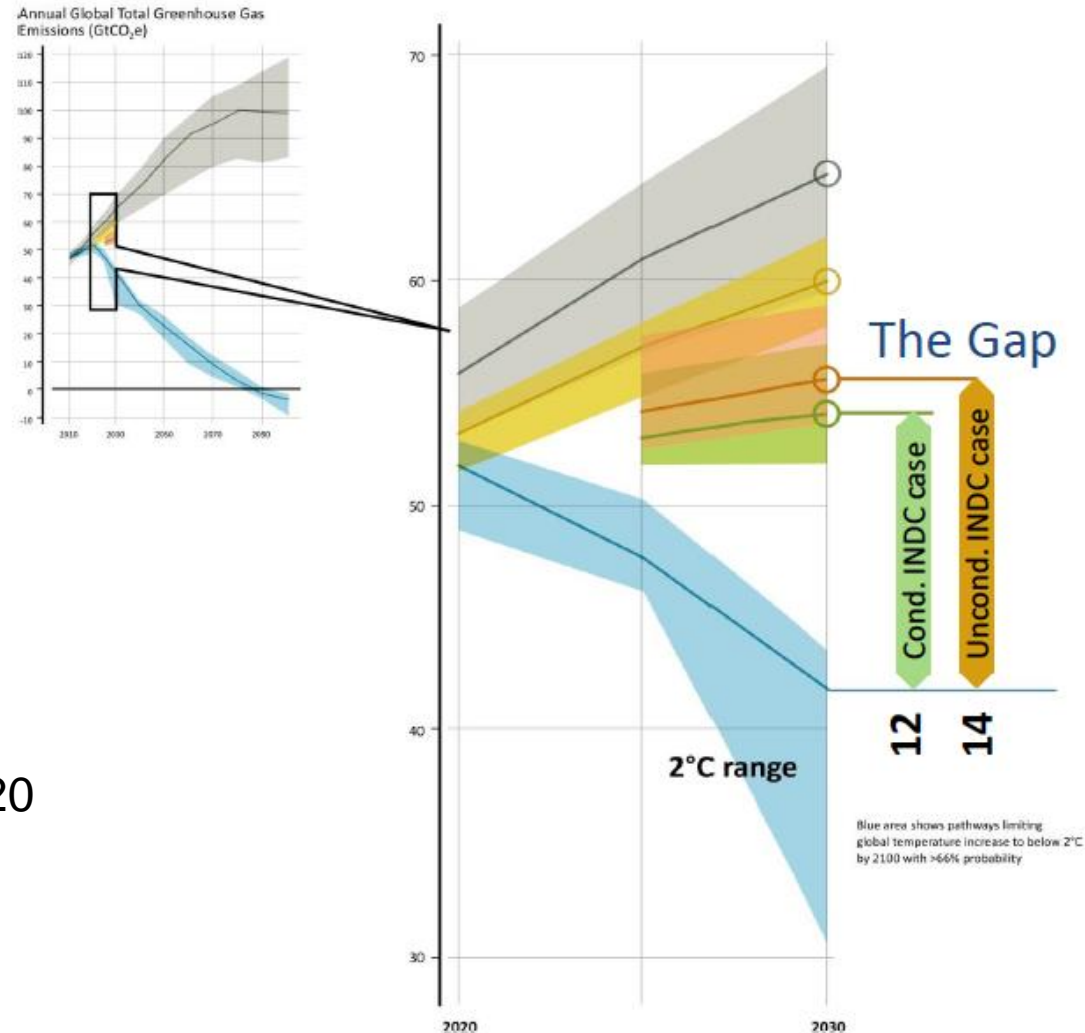
Paris Agreement: Very Ambitious

- Global peaking “as soon as possible”



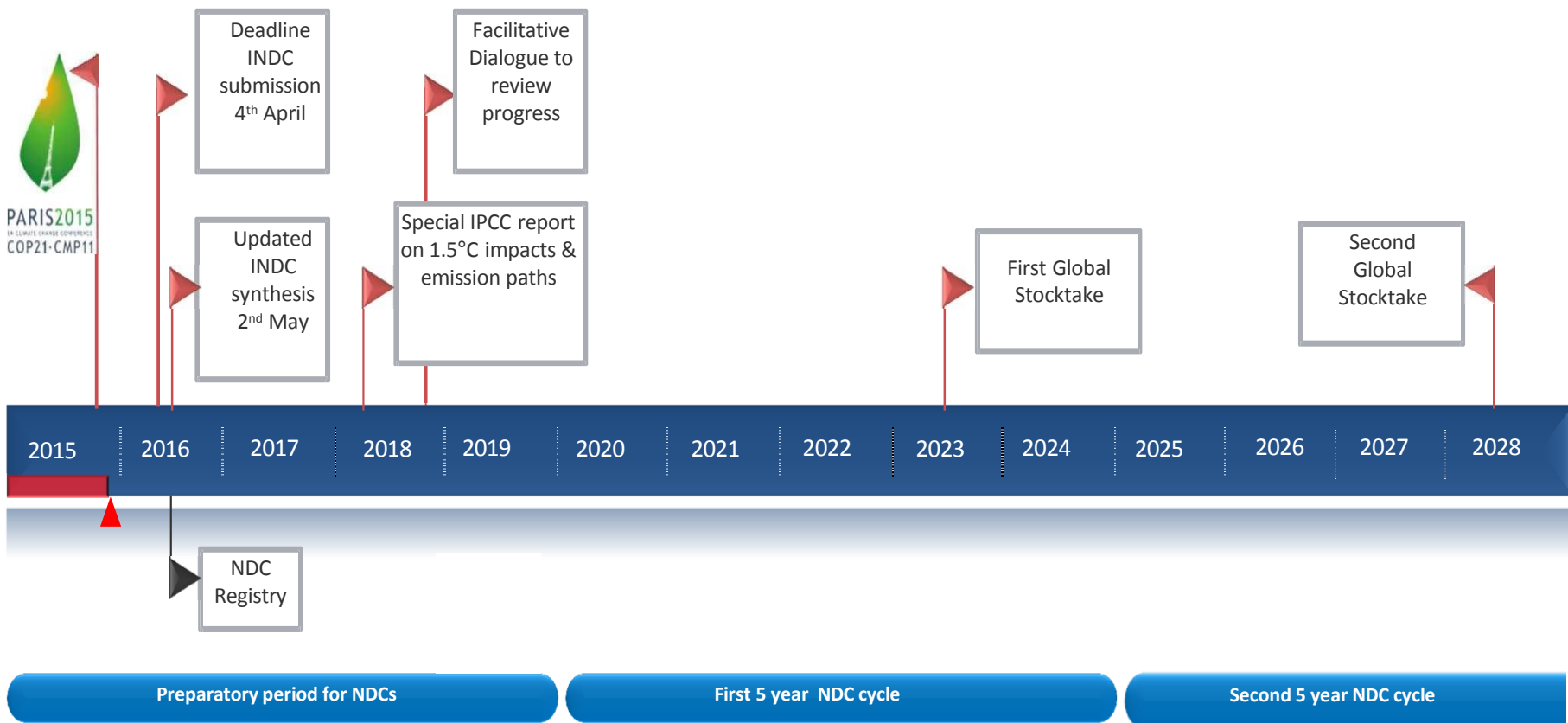
Paris Agreement: Very Challenging

- 10 All countries participate in domestic mitigation through Nationally Determined Contributions (NDCs)
- 10 NDCs are ratcheted upwards every 5 years
- 10 Industrialized countries should have absolute targets
- 10 Developing countries should “move over time” towards economy-wide reduction or limitation targets
- 10 INDCs with a 2025 target should be replaced by new NDCs by 2020
- 10 NDC registry at UNFCCC from 2016



**Challenge: Huge gap to 2°C path
with current INDCs**

Paris Agreement Timeline



U.S.-China Clean Energy Research Center, Buildings Energy Efficiency Consortium (CERC-BEE)



Vision: To Achieve Widespread Adoption of Very Low Energy Buildings

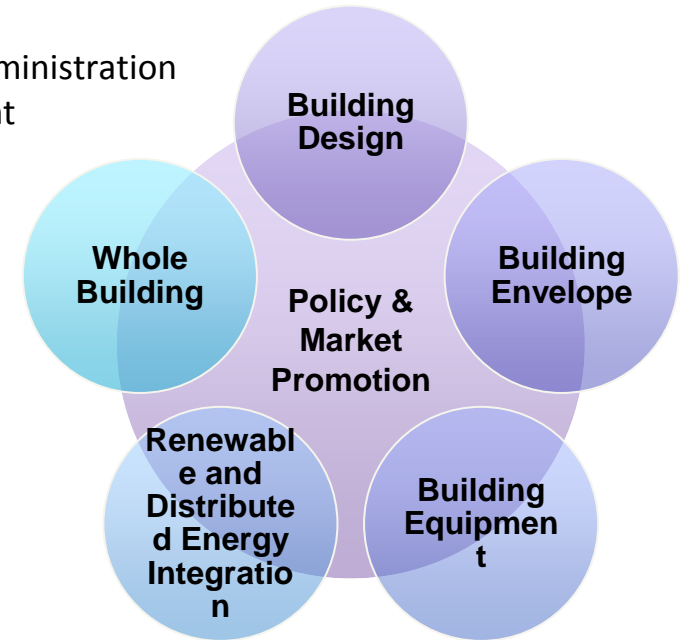
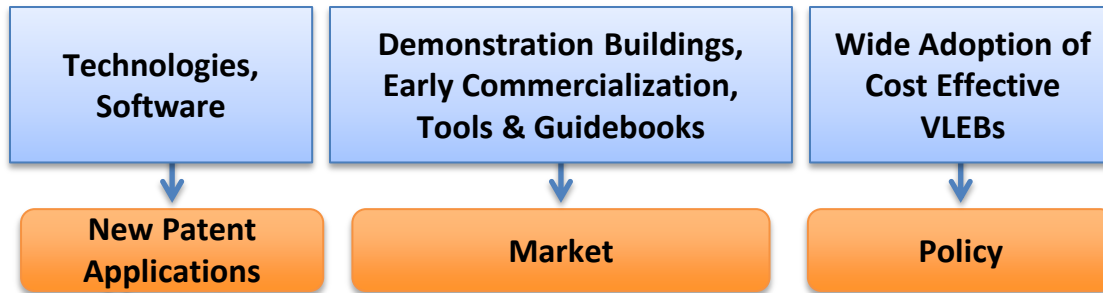
Mission: Build partnership and collaborate to deliver real world impact

- ✓ U.S./China construction market ~ 2B m2
- ✓ CO² savings ~ 100Mt/year by 2025
- ✓ CERC 2.0 (2016-2021): \$50M+, 5yr program with shared investment from government and industry



Website <http://cercbee.lbl.gov>

China collaborators: Ministry of Science & Technology/National Energy Administration
Ministry of Housing and Urban-Rural Development



U.S./China Research Performers & U.S. Industrial Partners:



Website

<http://china.lbl.gov/>



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