U.S. CLIMATE CHANGE POLICY

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PCAST
AGENDA

• US-China Joint Announcement (Kelly)

• Lima Outcomes (Kelly)

• Transparency Mechanisms in UNFCCC (Rick)

• US Progress in Reducing Greenhouse Gas Emissions (Rick)

• Discussion (Joint)
U.S.-CHINA JOINT ANNOUNCEMENT ON CLIMATE AND CLEAN ENERGY
UNFCCC Conference of Parties (20th) in Lima: Outcomes and Road to Paris

UNFCCC Outcomes
- Lima Call for Climate Action
- “Elements for a Draft Negotiating Text”

U.S. Outcomes
- Leadership position
- US as co-chair Multilateral assessment process
- Achievement of goals for COP20

Road to Paris
- INDCs
- Info requirements
- Elements text
- Tech transfer
- Climate finance
- CBDR
TRANSPARENCY MECHANISMS IN UNFCCC

• In Copenhagen and Cancun, countries agreed to set goals, submit biennial reports, and participate in Multilateral Assessment of each others progress
• In Lima, US participated in first-ever Multilateral Assessment
• Key Lima Transparency Outcomes
  – Calls on those countries ready to do so - and that should include all major emitters - to put forward publicly their proposed "contributions" by March 31, 2015.
  – Agreed on a detailed set of information that Parties will submit with their contributions to ensure that they are clear and understandable.
  – Agreed that Parties can consider communicating their undertakings to become more resilient.
The President’s Climate Action Plan (2013) consists of executive actions across three key pillars, grounded in existing legal authorities:

1. Reduce U.S. GHG Emissions
2. Prepare for the Impacts of Climate Change
3. Lead in International Efforts to Combat Global Climate Change
Robust action brings us in range of 26-28% below 2005 levels by 2025

Doubling of decarbonization pace

Consistent with reductions of >80% by 2050
The U.S. is driving substantial reductions in all sectors and gases through existing and new policies.

Enhanced policies to bolster sinks through reforestation and conservation will further contribute to reaching our 2025 goal.
Cutting Greenhouse Gas Emissions Through Clean Energy

- **Develop carbon pollution standards for new and existing power plants**
  - Delivered Proposed Standards for new power plants in Sep 2013
  - Delivered Proposed Standards for existing power plants in June 2014
  - Final rules by summer 2015

- **Double electricity generation from solar and wind in the U.S. again by 2020**
  - Builds on previous doubling from 2009 to 2012
  - New 20 percent by 2020 renewables procurement target for the Federal government

- **On-going research, development and deployment**
  - **Sunshot**: Less than four years into decade-long SunShot Initiative, the solar industry is already more than 68% to cost target of $0.06 per kilowatt-hour for utility-scale PV
  - **EV Batteries**: Reduced modeled, high volume cost of EV battery production from $1000/kWh in 2008 to $325/kWh in 2013, with a goal of $125/kWh by 2022
  - **Biofuels**: Reduced modeled mature cost of cellulosic ethanol from over $13 per gallon to about $2 per gallon
  - **Wind**: PPAs signed in 2013 show wind energy available at competitive rates as low as 2.5 cents/kWh
ENERGY EFFICIENCY POLICIES ALSO DRIVING DOWN EMISSIONS

• Major fuel economy standards for cars and light trucks
  – New standards will double the efficiency of cars and trucks by 2025, reducing over 6,000 Mt of CO2 over life of program
  – First-ever national fuel economy and greenhouse gas emission standards for commercial trucks, vans, and buses for model years 2014-2018
  – New post-2018 fuel economy standards planned for heavy-duty vehicles

• Comprehensive buildings sector efficiency measures
  – The US Department of Energy (DOE) completed 10 final appliance standards in just 2014. On track to goal of 3,000 Mt of cumulative abatement through 2030
  – Through Better Buildings Challenge over 2 billion square feet of commercial and industrial buildings on track to be at least 20 percent more energy efficient by 2020
  – Completed energy efficiency upgrades in more than 100 million homes, saving many families more than $400 on their heating and cooling bills in their first year alone
CUTTING GREENHOUSE GAS EMISSIONS BEYOND THE ENERGY SECTOR

• **Domestic actions to reduce short-lived climate pollutants**
  – On September 16, 2014, White House announced new executive actions and private sector commitments to reduce cumulative global consumption of HFCs by the equivalent of 700 million metric tons of CO2e through 2025, or 1.5% of the world’s 2010 GHG emissions
  – In 2014 the Environmental Protection Agency proposed two new rules under the Significant New Alternatives Policy (SNAP) program that will reduce 31-42 million metric tons of CO2e

• **New approaches to protect and restore forests, grasslands and wetlands to bolster our carbon sinks**
  – October 2014 release of Priority Agenda to manage and enhance lands sector carbon sinks
Since 2005, fuel economy standards, appliance efficiency standards, building codes, private sector innovation, and state and local action have driven down energy consumption by 5%, even as real GDP increased by 9%.

From 2009 to 2012, electricity generation from wind and solar power more than doubled.

Shift from coal to natural gas, largely in the power sector.

Source: EIA data