

Update on International, Federal, and U.S. State Action on Climate Change

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October 23rd, 2007

Overview

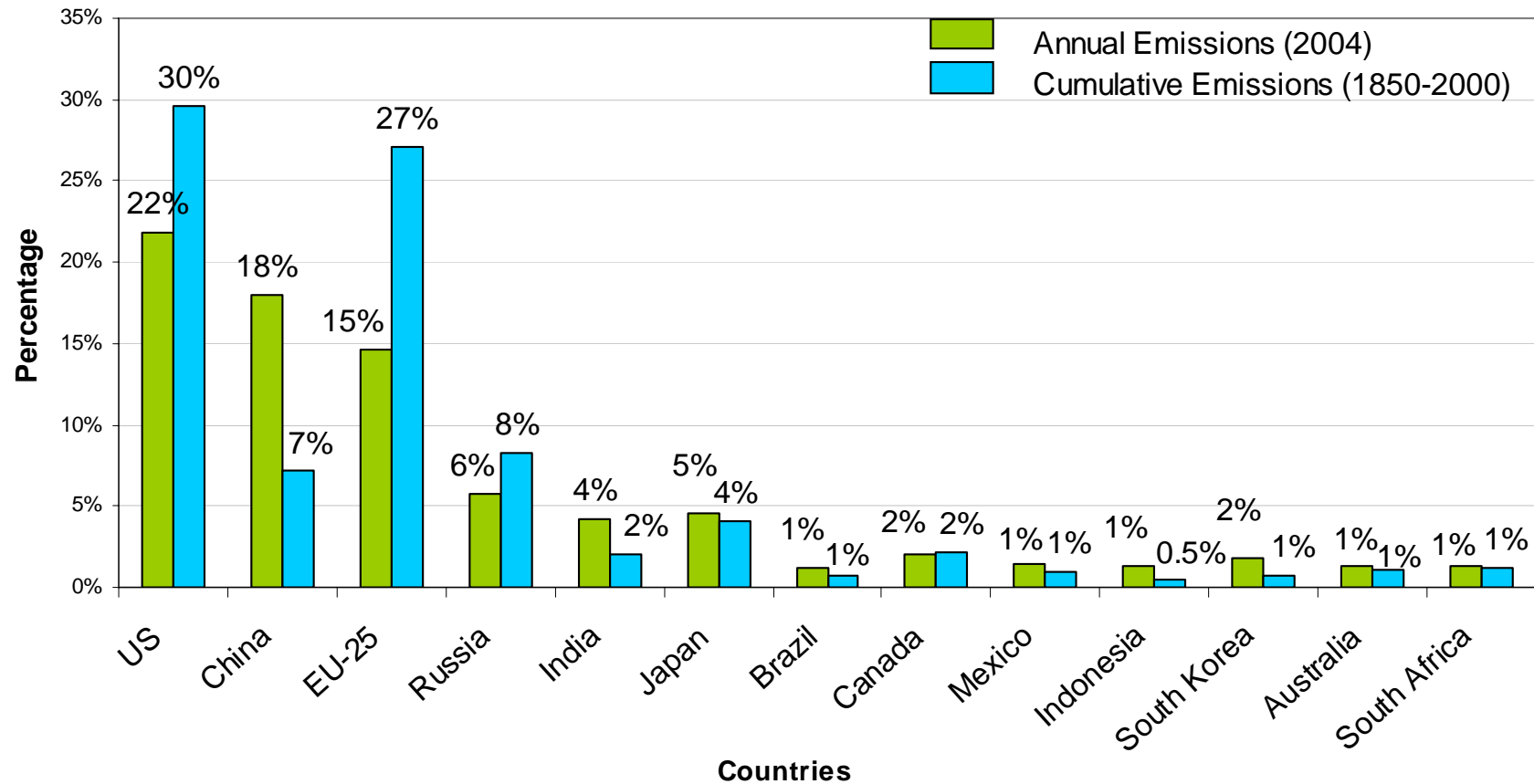


- International Context and Landscape
- Federal/Congressional Update
 - 2006 Congressional elections
 - Context/Current federal policy landscape
 - U.S. Climate Action Partnership
 - Federal proposals to address climate change
- State and Local Update
- Conclusion

Annual vs. Cumulative Emissions



Comparison: Annual* & Cumulative** CO₂ Emissions



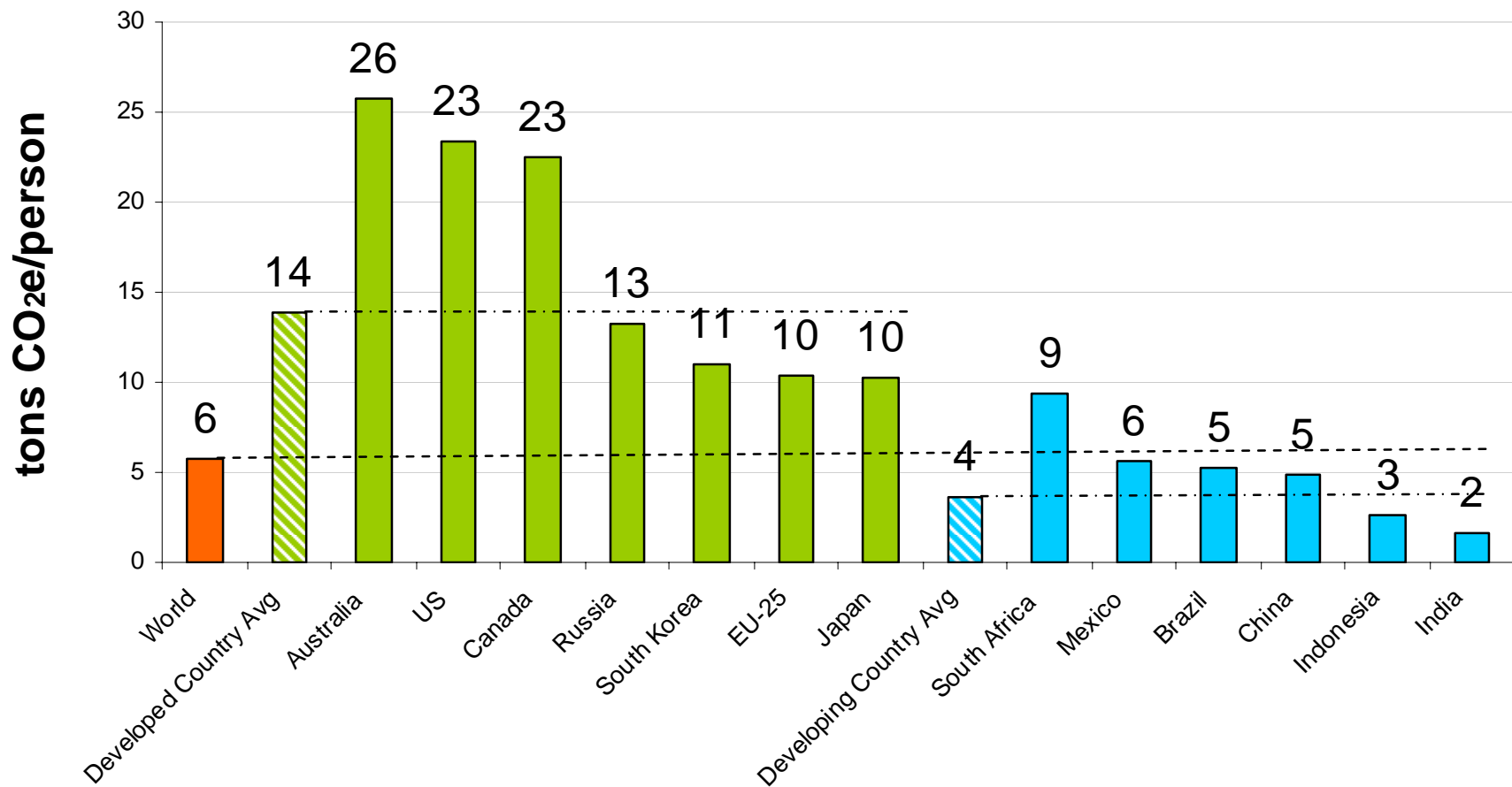
Source: * Annual Emissions for the year 2004 from IEA (2006) CO₂ Emissions from Fossil Fuel Combustion

** Cumulative Emissions from 1850-2000, CAIT WRI

Per Capita Emissions



Per Capita GHG Emissions (2004)



Source: IEA (2006) CO₂ Emissions from Fossil Fuel Combustion and EPA (2006) Global Anthropogenic Non-CO₂; Greenhouse Gas Emissions: 1990 – 2020

International Climate Effort



- G8 Summit (June '07): Called for global agreement on post-2012 framework under UNFCCC in 2009
- Steps within the UN
 - High-Level Event on Climate Change (Sept. 24)
 - 150+ countries, most with heads of state, aiming for strong signal to accelerate work at Bali
 - Consensus among world leaders on need to forge new global agreement on climate change
- U.S. Major Economies Meeting (Sept. 27-8)
 - Issue: Voluntary action vs. binding commitments: other countries reject the idea voluntary measures alone can address climate change
- 2007 Nobel Peace Prize: Gore and IPCC
- **Outlook: Real negotiations unlikely before 2009**
 - Bali COP (Dec. 07) can launch new UNFCCC process (not a negotiation) inviting post-2012 proposals

Australia and the EU



Australia

Report of the Task Group on Emissions Trading released May 31, 2007.

Recommends:

- An emissions trading scheme should form the principal mechanism to achieve emissions-reduction goals, along with complementary measures.
- Estimated commencement no later than 2012

New Zealand

- Economy-wide emissions trading system will be fully functional by 2013

EU Emissions Trading Scheme

- Limits CO₂ emissions at 12,000 facilities in 6 sectors
- 1 billion tons traded in 2006 for \$24 billion
- Phase 2 (2008-2012): proposing to include domestic aviation (by 2010 or 2011), overseas in 2012

March 9 EU Council conclusions:

- Binding target of 20% renewables by 2020
- 12 CCS demonstration plants by 2015 (possibility of zero emission plants by 2020)
- Commitment to reduce GHGs 20% below 1990 by 2020; 30% if other developed countries agree to comparable cuts

2006 Congressional Elections



- **Democrats take Congress: climate change a priority**
 - Sen. Barbara Boxer (D-California), chair of Senate Environment and Public Works Committee
 - Sen. Jeff Bingaman (D-New Mexico), sponsor of cap-and-trade bill, chair of Senate Energy Committee
 - Sen. Harry Reid (D-Nevada), supporter of McCain-Lieberman bill, Senate Majority Leader
 - Rep. Nancy Pelosi (D-California), House Speaker, makes climate action a top priority
 - Rep. John Dingell (D-Michigan), chairman of key House Energy and Commerce Committee, supports climate legislation

Growing sense in industry that US climate action is now inevitable and possibly desirable:

- State action
- EU action
- Influence in post-2012 treaty negotiations
- Regulatory certainty
- US public pressure
- Right thing to do
- Democratic Congress
- Make law under President Bush

Massachusetts et al vs. Environmental Protection Agency

- MA sued EPA for not regulating emissions of 4 GHGs, including CO₂, from transportation sector
- Court ruled that EPA has authority to regulate CO₂ and other GHGs based on the Clean Air Act
- Court ruled that it is the duty of EPA to protect health and welfare under the Clean Air Act
- Implications for Pavley tailpipe litigation (CA), EPA regulation of vehicles and stationary sources

U.S. Climate Action Partnership

- 27 companies, 6 NGOs
- Call for rapid enactment of legislation creating a mandatory flexible climate program, including:
 - Cap and Trade, declining emissions to 2050
 - Technology RD&D
- Recommended Targets:
 - Between 90–100% of today's levels within ten years of rapid enactment
 - Between 70–90% of today's levels within fifteen years of rapid enactment
 - Congress should specify an emission target zone aimed at reducing emissions by 60% to 80% from current levels by 2050

Global Climate Change in the 110th Congress

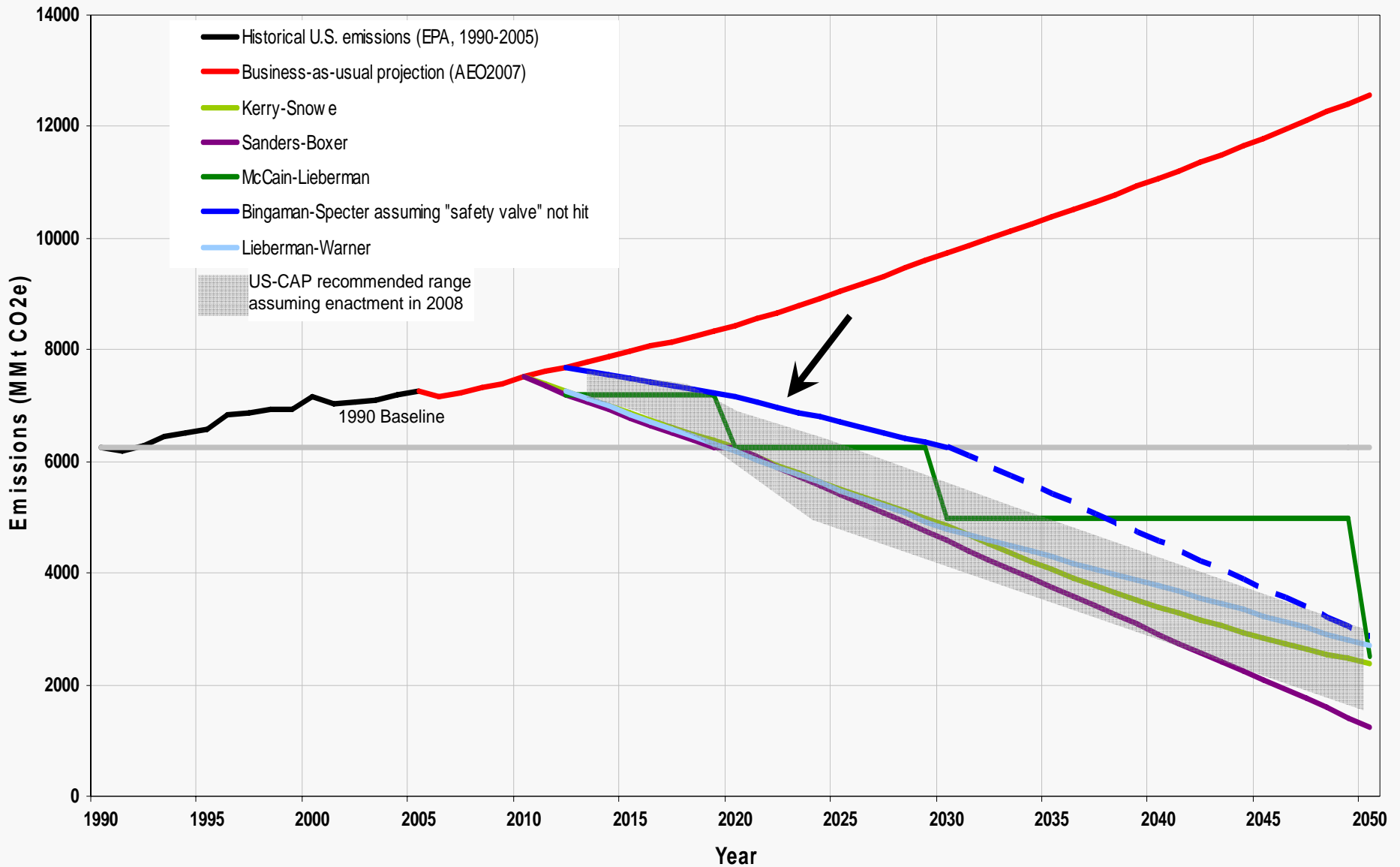
- Over 125 bills, amendments and resolutions related to climate
 - Record number of proposed cap-and-trade systems, resolutions calling for vigorous U.S. participation in international climate change negotiations, and funding for climate science and climate-friendly technologies research such as carbon capture and sequestration.
 - Many bills follow a pattern (also evident at the state level) of setting modest near-term emissions targets as well as more aggressive long-term targets based on where the science tells us we need to get to (60-80% below 1990 levels by 2050).
- Over 70 hearings
- March 2007: formation of Select Committee on Energy Independence and Global Warming

Recent Bills: Lieberman-Warner

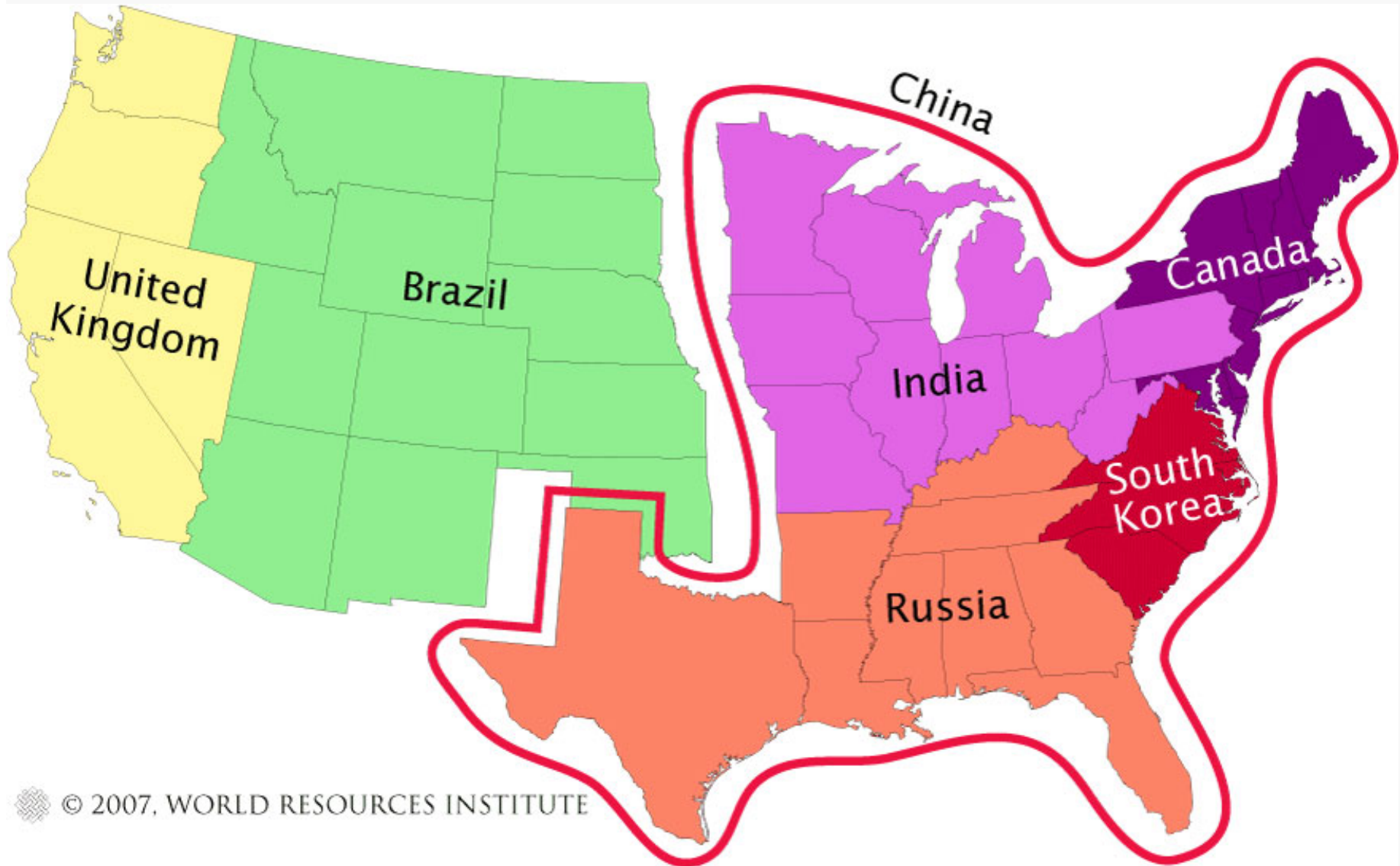


- **Bipartisan proposal – decent chance of passage**
 - Sponsored by Chairman (Sen. Joe Lieberman, I-CT) and Ranking Member (Sen. John Warner, R-VA) on relevant sub-committee
 - North Carolina Senator Elizabeth Dole is a co-sponsor
- Economy-wide cap and trade program – covers transportation fuels upstream, and electric utilities, other large sources downstream
- Drive deployment of climate-friendly technologies
- Ambitious yet achievable targets: 15% below 2005 level in 2020, 65% below 2005 in 2050
- Allowance distribution: increasing auction

Economy-Wide Senate Emissions Targets



State Emissions Are Significant...



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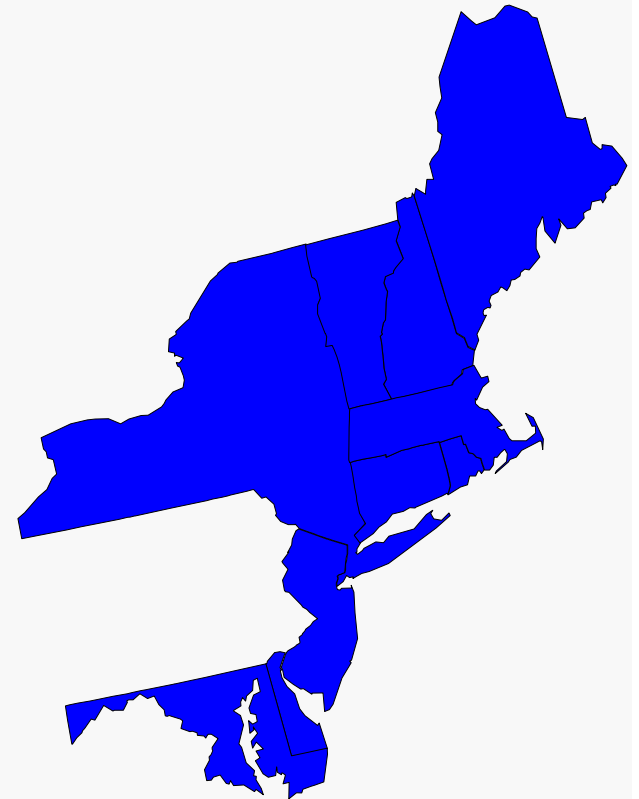
Source: World Resources Institute (Climate Analysis Indicators Tool; online at <http://cait.wri.org/figures.php>)

RGGI Update

Regional Greenhouse Gas Initiative

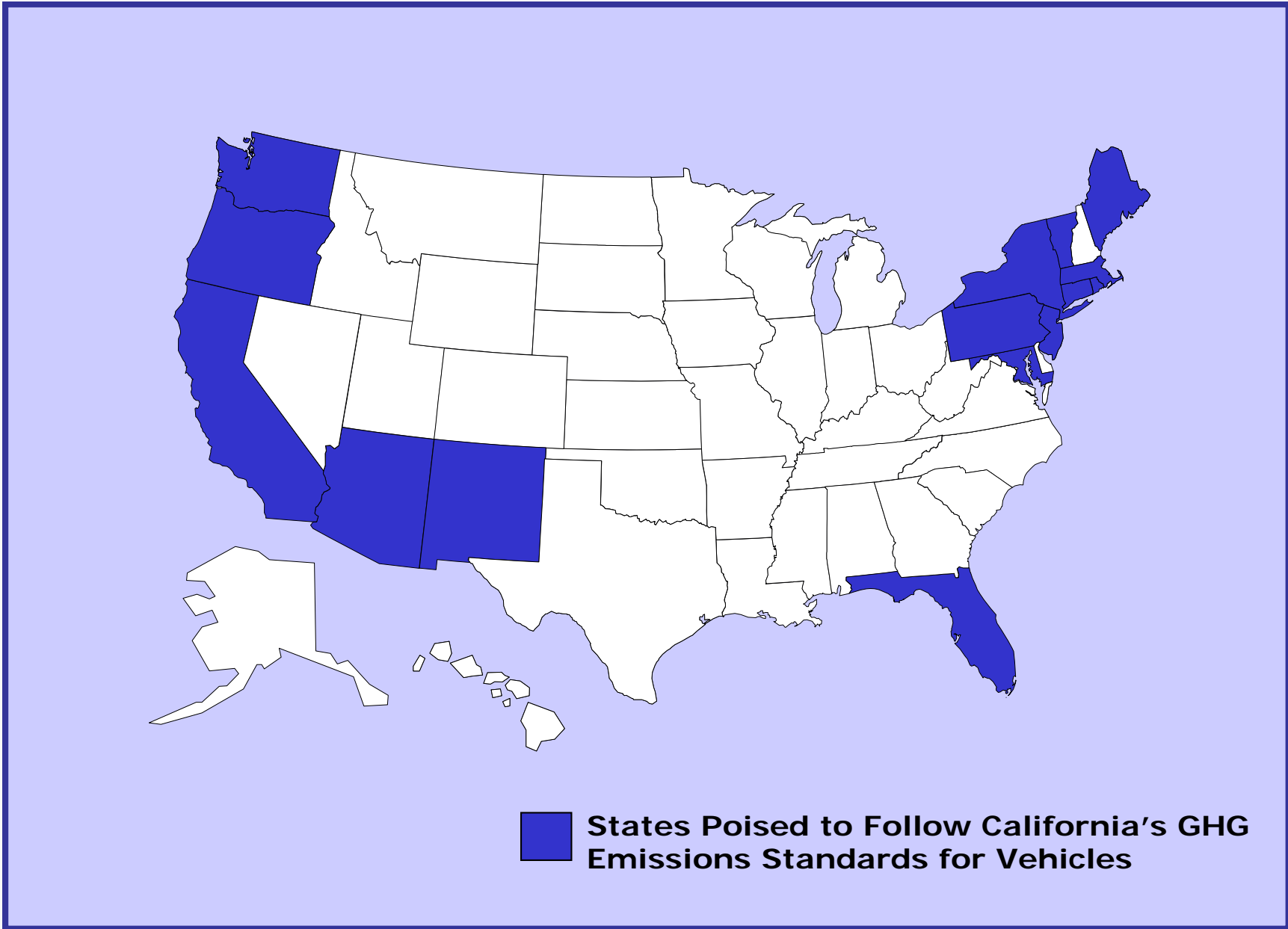
An Initiative of the Northeast & Mid-Atlantic States of the U.S.

- First mandatory U.S. GHG cap-and-trade program
- MA, RI, MD joined 2007; now 10 states participating (10% of U.S. emissions, equivalent to 8th largest emitter in the world)
- Next steps:
 - Adopting model rule state-by-state
 - Working on auction design
 - Most states have committed to or are considering 100% auction
 - MA just released draft auction rule
- Close to implementing regional organization
- Working on leakage issues; developing systems to track imported electricity/emissions leakage
- May link to California or other Western states (WCI) and EU



- AB 32: Global Warming Solutions Act of 2006
 - MAC report released earlier this year; recommendations for design of cap and trade system in CA
- January 2007: Low Carbon Fuels Standard (reduce carbon intensity of vehicle fuels sold in California at least 10% by 2020)
- Vehicle GHG standards: 22% reduction by 2012; 30% by 2016
 - MD, FL, and NM all adopted this year (14 states now poised to adopt in addition to CA)
 - Vermont lawsuit settled in September 2007 against automobile manufacturers challenging Vermont's adoption of the standards
 - Still awaiting waiver from EPA; CA has threatened to sue

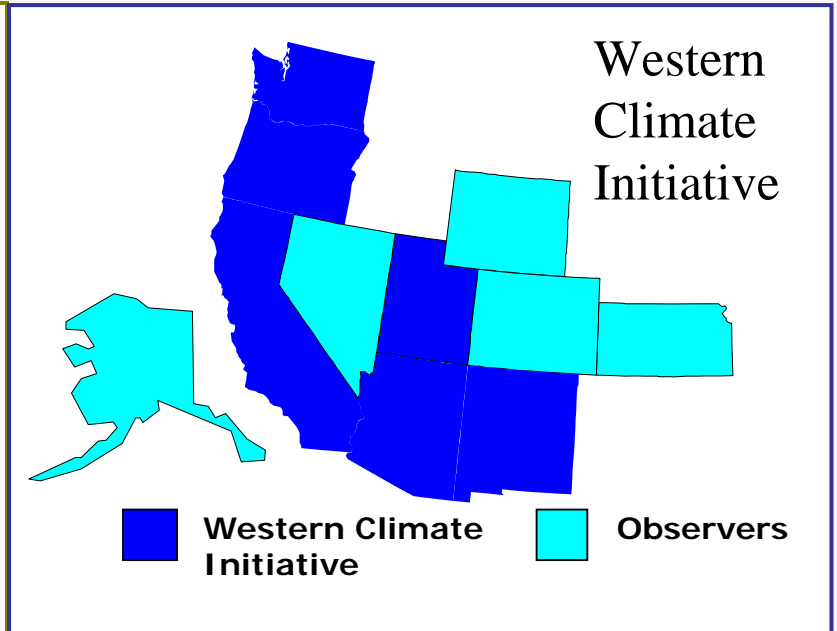
Vehicle GHG Standards



Western Climate Initiative



- Without counting Canadian Provinces, responsible for over 12% of U.S. emissions; comparable to Germany (7th largest emitter)
- Established February 2007 by Governors of Arizona, California, New Mexico, Oregon, and Washington
 - Utah, British Columbia and Manitoba have since joined
 - Other states, provinces observing
- Regional, economy-wide GHG target: 15 percent below 2005 levels by 2020 (~33 percent below BAU levels)
- By September 2008, will devise a market-based program, such as a cap-and-trade program
- Multi-state registry to track/manage GHG emissions



Governor Charlie Crist signs 3 climate- related Executive Orders in July 2007

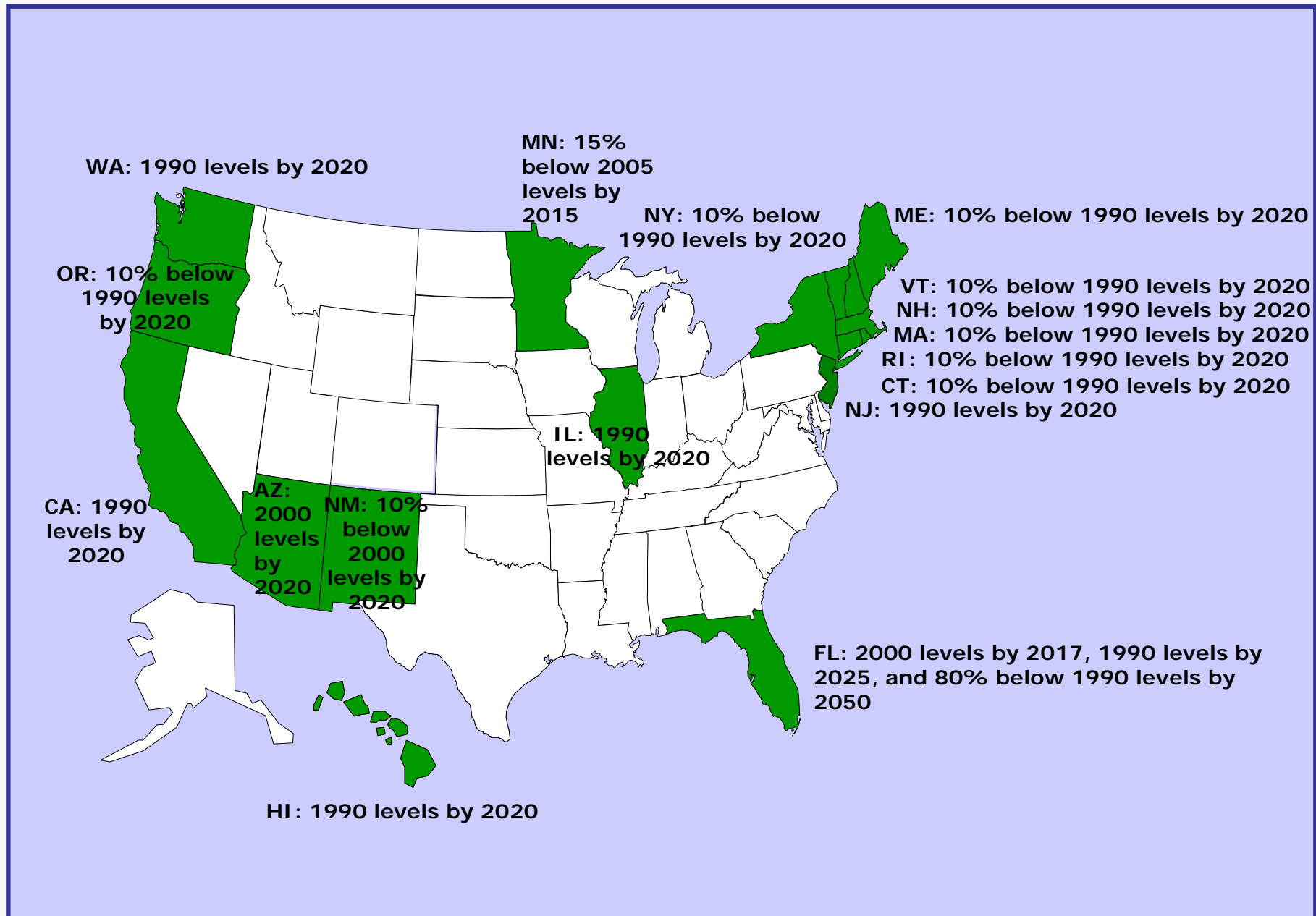
- Statewide GHG emissions target: 2000 CO₂ levels by 2017; 1990 levels by 2025; 80% below 1990 levels by 2050
- Creates Florida Governor's Action Team on Energy and Climate Change to develop an Energy and Climate Change Action Plan
- Adopts California's vehicle GHG emission standards
- Electric Utilities must reduce GHG emissions to 2000 levels by 2017; 1990 levels by 2025; 80% below 1990 levels by 2050
- Asks the state PUC to initiate rulemaking to adopt a 20% Renewable Portfolio Standard this year, with a strong focus on solar and wind
- Building efficiency codes
- Other measures

Other Action Across the Country

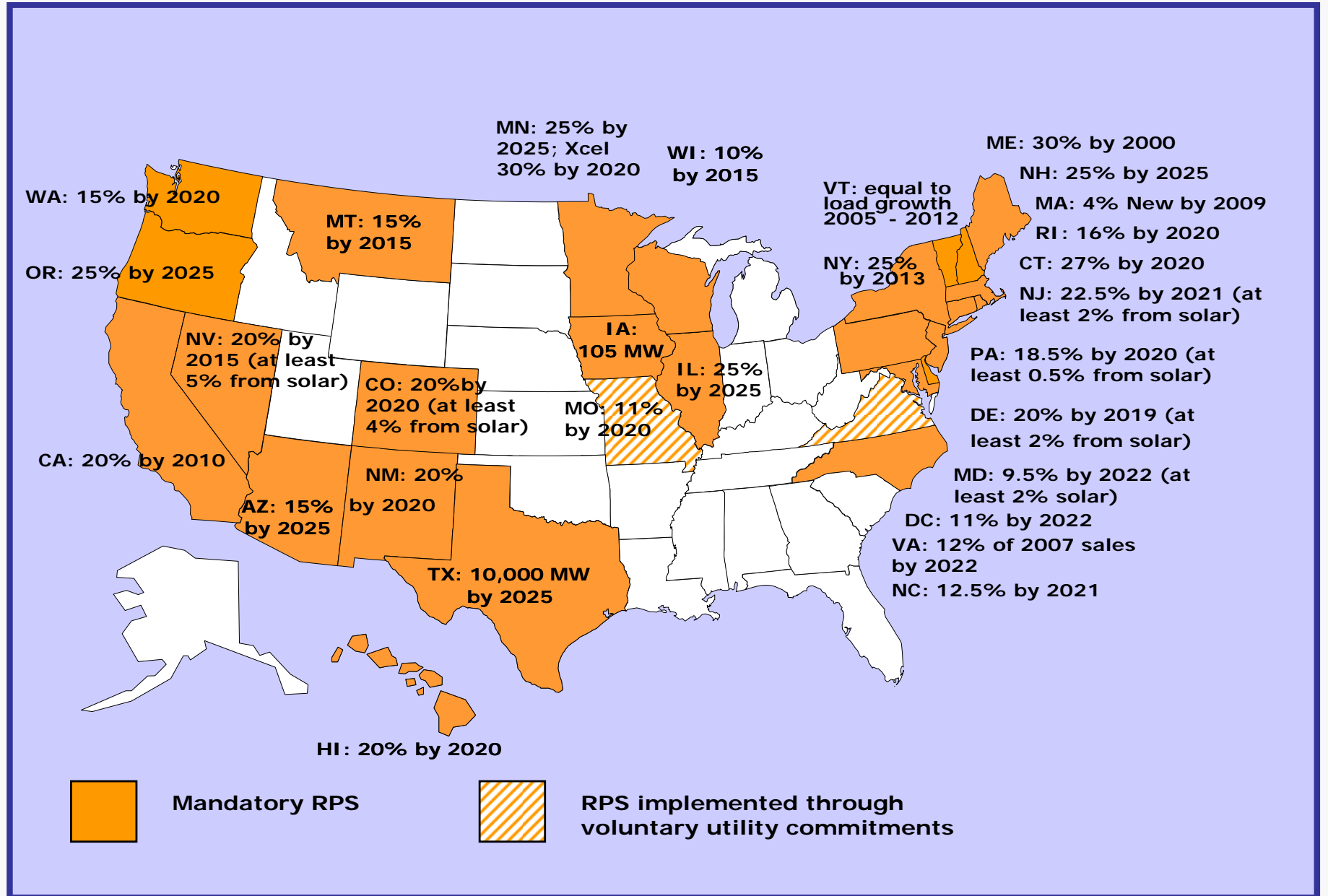


- North Carolina becomes the 25th state to adopt a Renewable Energy Standard: 12.5% by 2021 (August 2007)
- In the past year, eight states – IL, SC, AR, WI, MN, MD, IA, AK – formed legislative climate commissions or executive advisory groups (now 18 total)
- Illinois
 - Renewable Energy Standard (25% by 2025) - (August 2007)
 - Governor announced new statewide targets (1990 levels by 2020, 60% below by 2050); Advisory Group (Feb. 2007)
- Utah joins Western Climate Initiative (May 2007)
- Minnesota GHG targets (30% below 2005 levels by 2025); Renewable Portfolio Standard (25% by 2025) – (2007)

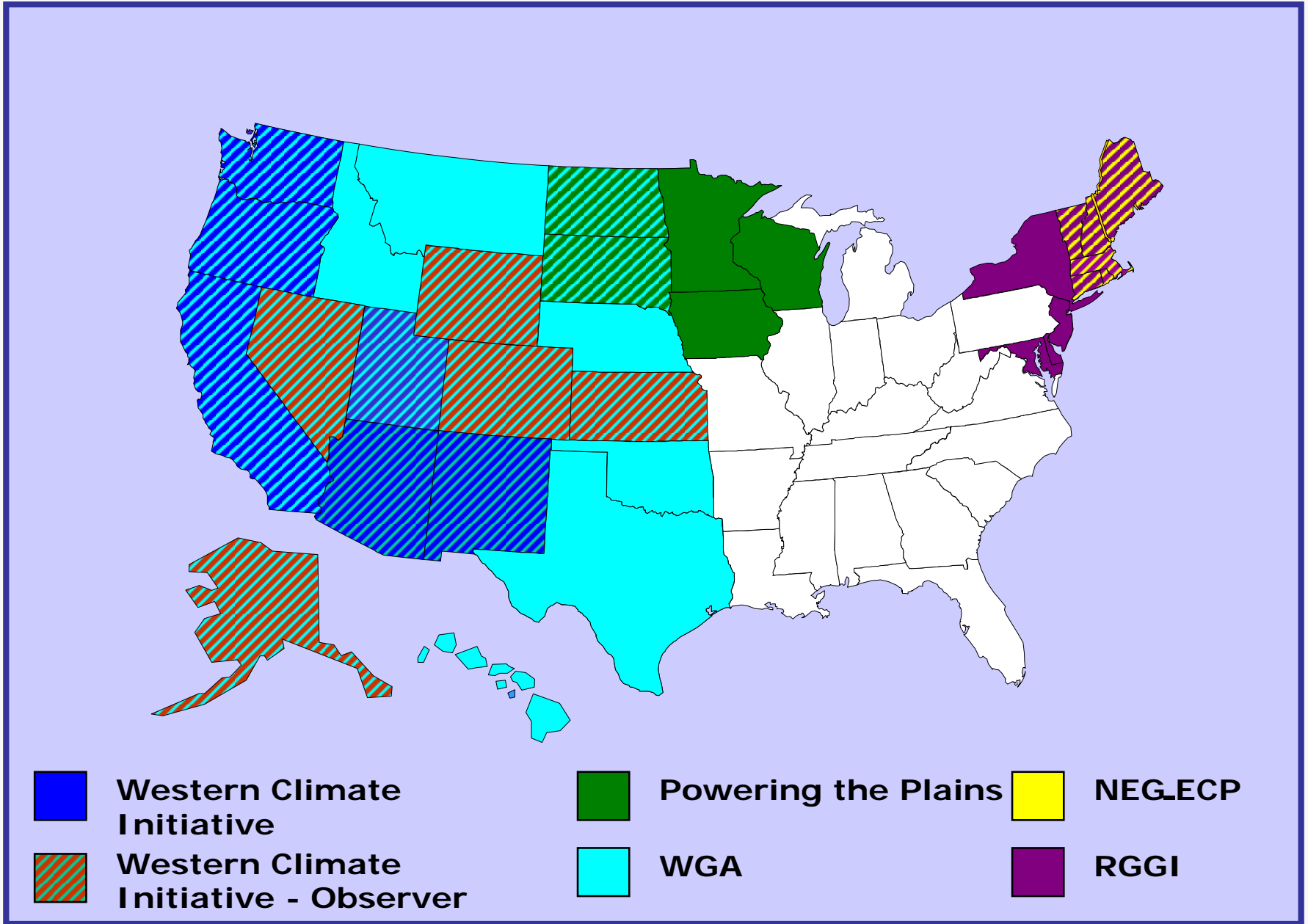
Update: State GHG Emission Targets



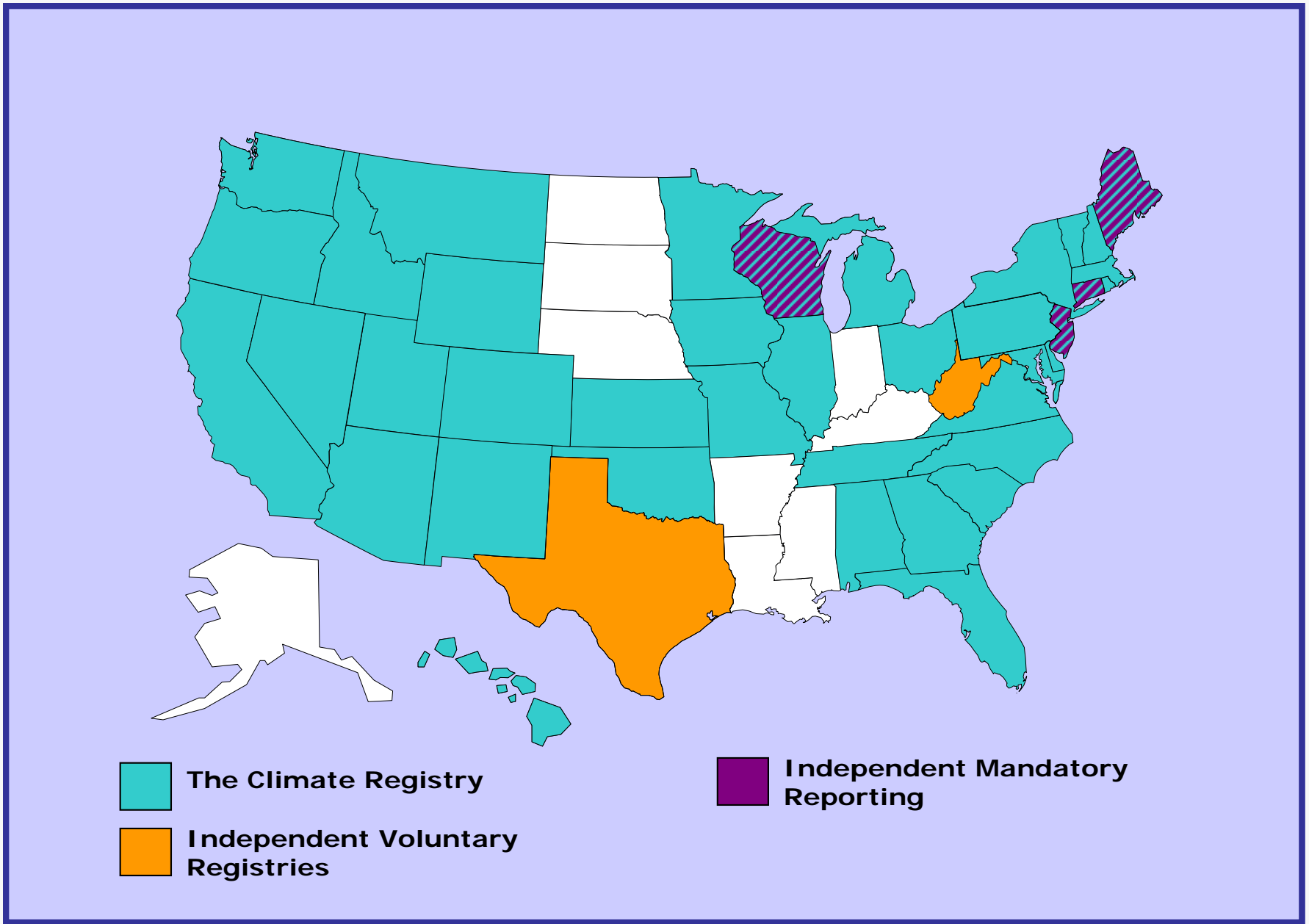
Update: Renewable Portfolio Standards



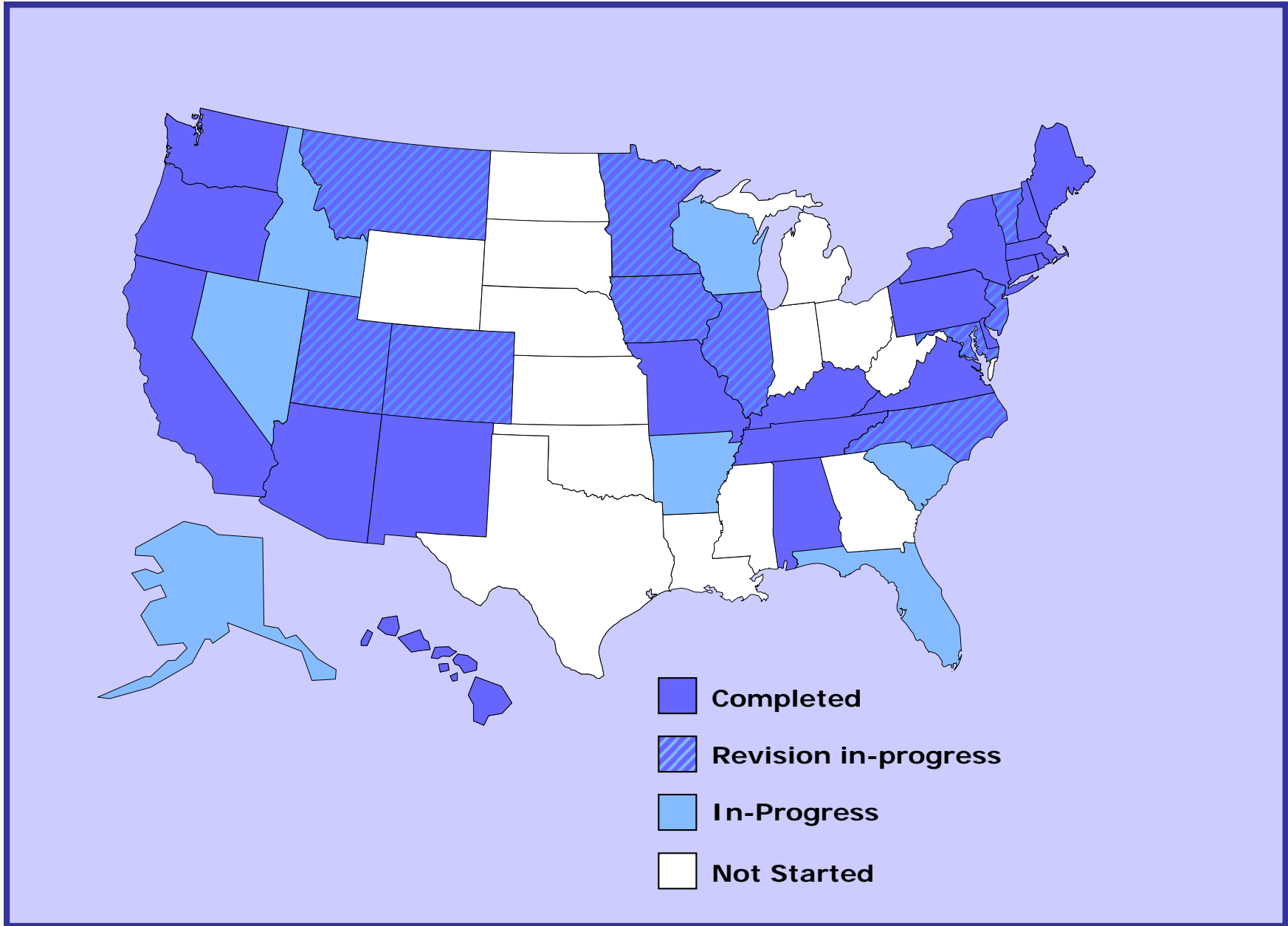
Update: Regional Initiatives



Update: GHG Reporting and Registries



Update: Climate Action Plans



Local Action: Clinton Climate Initiative



- Clinton Climate Initiative
 - Launched August 2006
 - Aims to mobilize climate action in large cities
 - Pools purchasing power of large cities to reduce the costs of energy-saving technologies and products.
 - Assistance to measure/track emissions and reductions
 - Energy Efficiency Building Retrofit program (May 2007): Clinton Climate Initiative, four multinational energy service companies, five global banks, and 16 major cities around the world working together to reduce energy use in municipal buildings.
 - U.S. cities include Chicago and New York

Conclusion



- Much of the world recognizes need for action, and looking ahead to post-2012
- Momentum is picking up at the federal level, but states are still leading on climate
- Achieving real emissions reductions
- States provide models and lessons for federal action
- Even with federal action, sub-national efforts will play a key role
- Trend toward regional action
- What happens in North Carolina – and other states – matters

Further information



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