Accelerating Decarbonization in the United States

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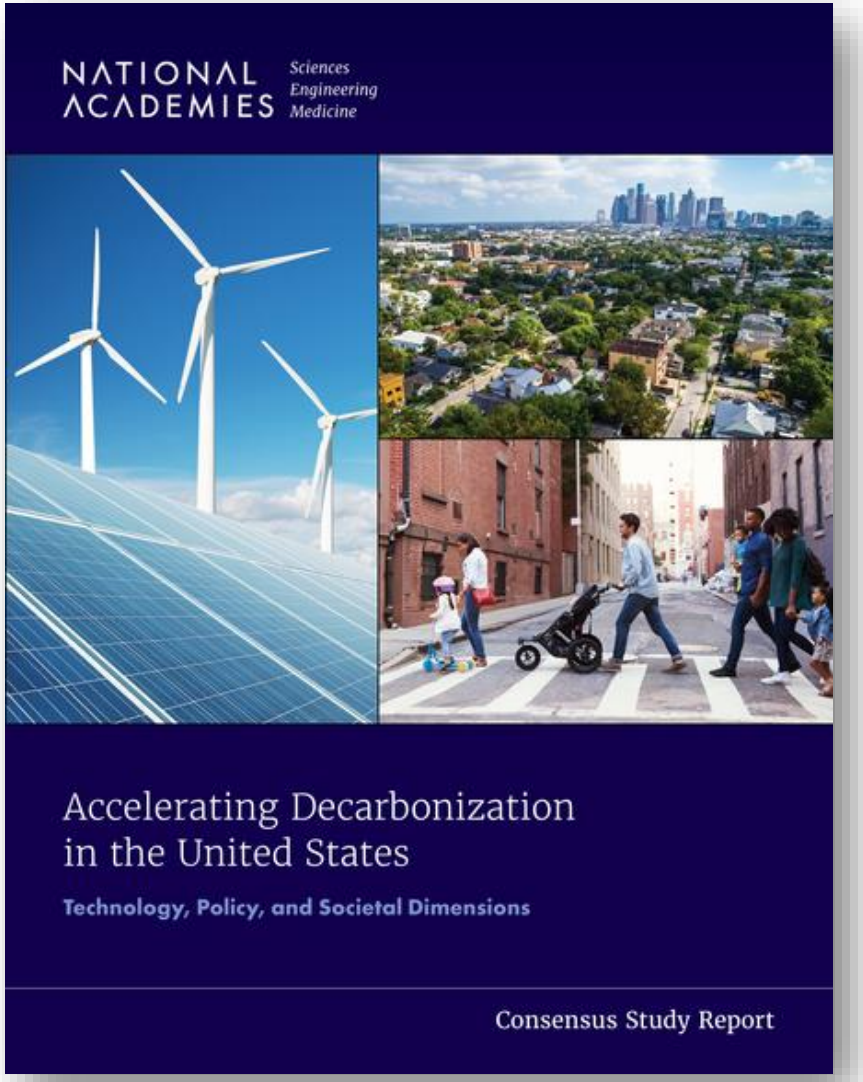
MCCC MARYLAND COMMISSION ON CLIMATE CHANGE

The National Academies Report



- Consensus Study report of the National Academies of Sciences, Engineering and Medicine (NASEM)
- nap.nationalacademies.org/resource/25931/interactive/
- Released October 17, 2023
- Second report, this on achieving net-zero target
- High-level overview with emphasis on relevance to state actions

Key Elements for Successful Decarbonization

Societal Needs

Technology Needs

Policy Needs

Societal Objectives in Reducing GHG Emissions

Energy Justice

Energy justice should be central to U.S. decarbonization efforts, with communities meaningfully engaged in the design and implementation of transition policies.

Public Health

The energy transition can provide numerous health benefits for communities including improved air and water quality.

Workforce and Employment

Decarbonizing our energy system will turbocharge our economy through vast job creation, and decision makers can take steps to make sure all communities benefit from high-quality jobs.

Public Engagement

Engaging with communities early and often, while delivering tangible benefits, is essential to ensure a successful energy transition.

Sectors

Electricity

Land Use

Industry

Fossil Fuels

Built Environment

Transportation

Finance

Nonfederal actors

State & Local Government Recommendations

2-4: Build multi-level capacity to support community-led transitions

4:1: Support development of net-zero curriculum & skill development for K–12 students

5-1: Accelerate development, implementation, assessment & sharing of energy system policy & approaches that deliver local benefits

5-3: Fix policy gaps that limit role of public land in decarbonization

5-4: Address barriers to local benefits from renewable energy facilities

State & Local Government Recommendations

6-4: Provide rate options to encourage flexible demand while ensuring affordable energy

6-5: Support equitable deployment of distributed energy resources

6-6: Support planning, public participation and investment in modernizing local grids

7-4: Coordinate subnational government agencies to align decarbonization policies & implementation

9-1: Accelerate adoption of battery electric vehicles

9-2: Promote vehicle electrification at ports and airports

State & Local Government Recommendations

9-3: Pursue cost-effective efficiency improvement to reduce GHG emissions

9-4: Pursue infrastructure design, standards, specifications & procedures that effectively reduce transportation carbon emissions

9-5: Enhance transportation equity & environmental justice through programs, planning & services

10-5: Coordinate subnational government agencies to align decarbonization policies & implementation

10-8: Develop effective workforce development programs for industry

State & Local Government Recommendations

12-1: Authorize and provide appropriations for state transition offices to address coal, oil & natural gas community transitions

12-3: Require utilities & service providers to plan for the transition

12-4: Consider moratoria on new gas lines in previously unserved areas

12-5: Modify the design of taxes on gasoline, diesel & petroleum products

12-7: Fund the decommissioning, cleanup & and just transition for communities historically dependent on fossil fuels

13-3: Designate an official or entity to track decarbonization program opportunities and deadlines

Risks

- **Execution risk**
- **Technological risk**
- **Political, judicial and societal polarization risk**
- **Risk from events outside of energy system**

Use of Report by Maryland & MCCC

- STWG scan for scientific and technical elements for further exploration
- Bring relevant recommendations to attention of the other working groups on Mitigation, Just Transition Employment and Retraining, Energy Industry Revitalization, and Energy Resilience and Efficiency
- Reference and, to the degree practicable, incorporate responses to the recommendations of *Accelerating Decarbonization* in the CSNA Implementation Plan
- Framing and resource during implementation of CSNA Plan