Act on Climate Mandates

On April 14, 2021, Governor Dan McKee signed into law the 2021 Act on Climate, which sets mandatory, enforceable climate emissions reduction goals leading the state to achieve net-zero emissions economy-wide by 2050. This legislation updates the previous 2014 Resilient Rhode Island Act, positioning the state to boldly address climate change and prepare for a global economy that will be shifting to adapt to clean technology.

Act on Climate as it pertains to a Climate Change Dashboard:

“To support the council’s (EC4) work, state agencies shall:
Foster public transparency by developing public metrics and an online public dashboard that shall track both emissions reductions and sources of energy consumed by the state. The metrics and the dashboard shall be updated at least annually.”


www.climatechange.ri.gov/aoc
The 2021 Act on Climate requires the Executive Climate Change Coordinating Council (EC4) to “foster public transparency by developing public metrics and an online public dashboard that shall track both emissions reductions and sources of energy consumed by the state” (RIGL 42-6.2-3.13).

The EC4 is requesting advice and guidance from the Advisory Board to develop a draft outline of a climate dashboard by October 31, 2022.

**Guiding Principles:**
- Meet the letter of the law
- Maximize transparency
- Consider facets of climate change beyond emissions
- Build on best practices
- Balance information with administration
- Consider the dashboard a living document
Existing Efforts: RIDEM currently maintains a climate dashboard available online (left). A number of EC4 member agencies feed information and data into this existing dashboard. This dashboard highlights seven key metrics, alongside explanations of why each metric matters. The dashboard is updated quarterly (approximately) and requires about 40 staff hours each year.

“In lieu of revising the existing dashboard, we ask that the Advisory Board consider this request as a carte blanche. First, identify the key metrics to represent on an ideal dashboard, and then revise according to the guiding principles.”

To view RI’s Climate Change Snapshot, visit: www.climatechange.ri.gov/climatesnapshot
Climate Dashboards across Different States

What do different states track on their dashboards?

- ZEV & State green-fleets
- Fuel use
- Renewable energy generation
- EV Charging Infrastructure
- Sea level rise: potential and flooding
- Total energy consumption/generation
- Utility cost & savings
- Drought
- Resiliency
- Weather: storms, temperature, precipitation
- RGGI Funding
Climate Dashboards across Different States

To view climate dashboards, visit: Linktr.ee/RIEC4

13 States with Climate-Related Dashboards (varying purposes)
Dashboards Across the US: Colorado

Maintained by The Colorado Department of Health and Environment, the ‘Colorado Greenhouse Gas Metrics’ dashboard is a comprehensive overview of CO’s greenhouse gas reduction. However, this dashboard goes deeper into metrics and tracking to show in detail how close the state is to reaching its 2025 goal. Further information on CO’s dashboard to come.

This Dashboard Tracks:
- Total energy consumption/ generation
- Transportation
- Fossil fuel production
- Agriculture
- Climate Equity
  - Air Quality
  - Energy Burden
  - Community Engagement

To view climate dashboards, visit: Linktr.ee/RIEC4
Dashboards Across the US: Colorado

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![Dashboard Screenshot](image)

**Best Practices:**
- Data is accompanied by explanations
- Easily viewable and understandable trends
- The inclusion of climate equity (mapping)
- Downloadable data and images

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<table>
<thead>
<tr>
<th>Indicator</th>
<th>Most recent data available</th>
<th>Change from previous month</th>
<th>Year-over-year change</th>
<th>Trend over 5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal Generation</td>
<td>January 2022</td>
<td>▲ +0.4%</td>
<td>▲ +1.4%</td>
<td>▼ -4.7% per year</td>
</tr>
<tr>
<td>Natural Gas Generation</td>
<td>January 2022</td>
<td>▲ +18.6%</td>
<td>▼ -12.9%</td>
<td>▲ +2.3% per year</td>
</tr>
<tr>
<td>Total Renewables Generation</td>
<td>January 2022</td>
<td>▼ -10.1%</td>
<td>▲ +13.1%</td>
<td>▲ +10.2% per year</td>
</tr>
<tr>
<td>Aviation Fuel Sales</td>
<td>September 2021</td>
<td>▼ -6.1%</td>
<td>▲ +11.5%</td>
<td>▲ +2.0% per year</td>
</tr>
</tbody>
</table>

To view climate dashboards, visit: Linktr.ee/RIEC4
The Connecticut Office of Policy and Management developed their ‘GreenerGov CT’ dashboard internally following Governor Lamont’s Executive Order 1 (April 2019). This dashboard is maintained internally and was developed on Tableau Public, a free program that displays data in an interactive way. The dashboard is updated annually and requires only 1-2 days to do so. EnergyCAP is used to collect data from state agencies as well as private electric and gas companies.
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### Best Practices:

- **Inexpensive interface program**
- **Interactive data displays**
- **Easily comprehendible, not overcomplicated**

**To view climate dashboards, visit:** Linktr.ee/RIEC4
Dashboards Across the US: Hawaii

The Aloha+ Challenge website tracks Hawaii’s local contribution to all 17 SDGs with 6 priority areas, 37* targets & 200+ community-based indicators. Hawaii uses the dashboard as an open-data dashboard that provides accountability and informs decision-making as part of an ongoing stakeholder process. The Aloha+ dashboard was built using ArcGIS Hub and is supported and maintained by a team of HI state employees.

This Dashboard Tracks:
- The UN’s 17 SDGs
- Clean Energy
- Workforce Development and Education
- Food consumption and waste
- In-state initiatives and goals

To view climate dashboards, visit: Linktr.ee/RIEC4
Dashboards Across the US: Hawaii

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Best Practices:
- Aligns with goals outside the state – colloquial to outsiders
- Wide variety or interactive displays
- Explanations of the different metrics and goals

To view climate dashboards, visit: Linktr.ee/RIEC4
Dashboards Across the US: Massachusetts

The Massachusetts Executive Office of Energy and Environmental Affairs maintains the ‘GHG Emissions and Mitigation Policies’ page on Mass.gov. The page is not laid out as a dashboard but rather a long webpage that alternates between text explaining different policies, and graphed metrics that are associated.

This Dashboard Tracks:
- Total energy consumption/generation
- Transportation
- Buildings (energy use & policy impacts)
- Air Quality

To view climate dashboards, visit: Linktr.ee/RIEC4
Dashboards Across the US: Massachusetts

The Massachusetts Executive Office of Energy and Environmental Affairs maintains the ‘GHG Emissions and Mitigation Policies’ page on Mass.gov. The page is not laid out as a dashboard but rather a long webpage that alternates between text explaining different policies, and graphed metrics that are associated.

**Best Practices:**
- Interactive graphs and data displays
- Policy overviews and write-ups with data
- Variety of data displayed – not focused on one sector

**Electricity Generation**

In 1990, power sector emissions were comparable to emissions from combustion of fuels in buildings and in vehicles, but they have since fallen by nearly 50%. This progress has been dominated, in quantitative terms, by the closure of coal- and oil-fired power plants, driven both by changes in relative fuel costs and by federal and state regulations.

Looking to the future, Massachusetts’ Renewable Energy Portfolio Standard (RPS) and Clean Energy Standard (CES) will continue to cut power sector emissions by requiring at least 80% of all electricity sold in the state to be clean or renewable by 2030. In addition, MassDEP’s Electricity Generator Emissions Limits are working to gradually restrict the amount of carbon dioxide the Commonwealth’s remaining fossil-fuel power plants are allowed to emit. Careful management of the electricity grid and procurement of energy sources, such as offshore wind and Canadian hydroelectric power, will ensure that electricity remains affordable and reliable, as well as safe and clean.

For a more detailed analysis of Massachusetts' progress, please review the GWSA 10-Year Progress Report.

To view climate dashboards, visit: [Linktr.ee/RIEC4](#)
Dashboards Across the US: New York

The New York State Energy Research and Development Authority (NYSERDA) maintains NY’s ‘Clean Energy Dashboard’. Data is collected from NYSERDA Program Administrators as well as utilities. Data is collected via an Excel scorecard before being uploaded into Tableau, their choice of dashboard development software. The dashboard is updated by NYSERDA quarterly, taking a few days for each update.

This Dashboard Tracks:

- Electricity usage, savings, and peak demands
- Renewable Energy Generation
- Fuel Usage

To view climate dashboards, visit: Linktr.ee/RIEC4

Cumulative Progress by Quarter
Renewable Energy Generation, Gross Lifetime (MMWh)

Filter Data

- Program Administrator
- Portfolio
- Primary End-Use Sector
- Fuel Type Funding Source
- NYS Clean Heat
- New Energy New York
- NYS / Marital Rate
- Program Name
- Committed/Allocated

Greenhouse gas emission reductions from the total acquired energy savings of programs statewide are equivalent to...

- removing 1,621,667 passenger vehicles from the road annually
- the annual use of 1,229,960 households
Dashboards Across the US: New York

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Best Practices:

- Quarterly Updating
- Easily viewable and manipulable data
- Accompanying data available for download

To view climate dashboards, visit: Linktr.ee/RIEC4
Dashboards Across the US: New Jersey

The New Jersey Department of Environmental Management (NJDEP), New Jersey Board of Public Utilities (NJBPU), and New Jersey Development Authority (NJEDA) maintains NJ’s ‘RGGI Dashboard’. Data and information related to climate investments being made by the NJDEP, NJBPU, and NJEDA utilizing funds obtained through quarterly auctions of the RGGI program are input into the dashboard through a GIS application. Data is collected from reporting agencies before being uploaded into GIS, their choice of dashboard development software. The dashboard is updated by NJDEP quarterly, taking a few days for each update.

Best Practices:

- Showcases clean energy project funding
- Inclusion of climate equity (mapping)
- Easily viewable and manipulative data
- Emissions avoided from clean energy investments

To view climate dashboards, visit: Linktr.ee/RIEC4
Dashboards Across the US: Minnesota

The Minnesota Department of Transportation and Pollution Control Agency maintains MN’s ‘EV Dashboard’.

Best Practices:

- EV Charging Infrastructure
- Easily viewable and manipulable data
- Accompanying data available for download
- ZEV & State Green Fleets

To view climate dashboards, visit: Linktr.ee/RIEC4
The EValuateCO dashboard is made possible through a collaboration between the Colorado Energy Office (CEO), Colorado Department of Revenue Division of Motor Vehicles (DMV), NIC Colorado and Atlas Public Policy. DMV, through NIC Colorado provides vehicle registration data, the single most important dataset in understanding evolving transportation markets. EVSE usage data is provided by the Charge Ahead Colorado program.

To view climate dashboards, visit: Linktr.ee/RIEC4
Climate Dashboards across Different States

What are best practices from different dashboards?

- Manipulable/interactive data accompanied by explanations
- Easily viewable and understandable trends
- Inexpensive interface programs
- Inclusion of Climate Equity (mapping and criteria)
- Quarterly updating
- Public feedback on the website (for clarification or inquiries)
- Align dashboard metrics with data that is already collected

To View RI’s Current Climate Snapshot, visit: www.climatechange.ri.gov/climatesnapshot

To view climate dashboards from other states, visit: Linktr.ee/RIEC4
Thank You!

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