

5. CRS Implementation

5.1 Planning

Implementing the CRS on a planning level will involve incorporating the document into the statewide and metropolitan transportation planning processes. Since the CRS is a planning document rather than a programming document, Iowa DOT and MPOs could integrate it into their long-range transportation plans by incorporating it directly or by reference, or by integrating its strategies. The CRS can also be used to help prioritize projects or initiatives in long-range plans.

The CRS will help provide a foundation for the topic of emission reductions for those agencies that have not yet fully integrated it into their planning processes, while serving as a resource or enhancement for those that already had emission reduction planning underway.

5.2 Funding

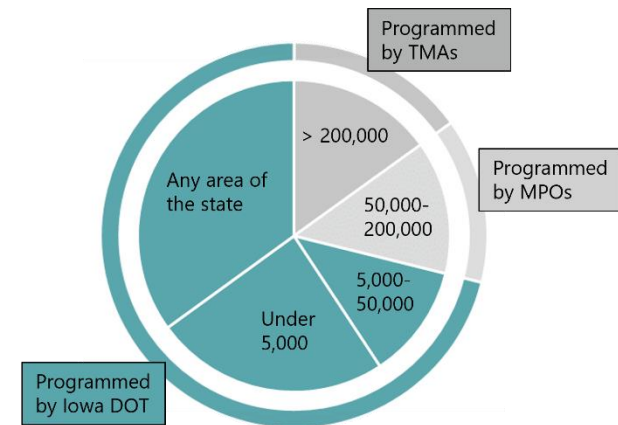
Carbon Reduction Program (CRP)

Each state receives an apportionment of CRP funding that is calculated based on a percentage specified in law. Iowa's apportionment will average about \$16.5 million annually from federal fiscal years 2022-2026. The funding is required to be spent in different areas based on population.

- 65% is divided among:
 - Over 200,000 (MPOs that are Transportation Management Areas (TMAs))
 - 50,000 – 200,000 (non-TMA MPOs)
 - 5,000 – 50,000
 - Under 5,000
- 35% can be spent anywhere in the state

MPOs will receive annual targets for CRP funding to program towards the projects that are priorities in their areas. The Iowa DOT will program the remaining funding.

CRP funding distribution by relative proportion of Iowa's population



CRP funding may be used on a wide range of projects that support the reduction of transportation emissions. Projects must be identified in the Statewide Transportation Improvement Program (STIP) / Metropolitan Transportation Improvement Program (TIP) and be consistent with the Long-Range Statewide Transportation Plan and the Metropolitan Transportation Plans. CRP projects are encouraged, but not required, to support implementation of the CRS.



Other Funding Programs

While CRP funding is explicitly for reducing transportation emissions, there are numerous other funding sources that could also support CRS strategies. For the programs noted on this page, the administering agency (Iowa DOT or MPO) has some ability to shape their selection criteria and prioritization process based on their priorities. For example, this could include adding criteria related to reducing carbon emissions or prioritizing certain project types.

CRP funding and the programs discussed on this page are not the only sources that fund projects that may help implement the CRS. There are many other state and federal funding sources project sponsors can apply for. For example, the National Electric Vehicle Infrastructure (NEVI) Program, also created under IIJA, will help fund electric vehicle charging infrastructure. Iowa DOT has developed a separate plan to guide those investments. Other programs can also fund some of the strategies discussed in this CRS, such as operations improvements and bicycle/pedestrian accommodations. It will be important to consider the various funding programs and discretionary grants available in addition to CRP funding as potential mechanisms for CRS implementation.

Congestion Mitigation and Air Quality (CMAQ) and Iowa Clean Air Attainment Program (ICAAP)

The CMAQ program provides a federal funding source for state and local governments to fund transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards (NAAQS) for ozone, carbon monoxide, or particulate matter (nonattainment areas), and for former nonattainment areas that are now in compliance (maintenance areas).

Iowa has enhanced flexibility for its CMAQ funding since it has no nonattainment or maintenance areas. The Iowa DOT uses part of its CMAQ funding to fund the ICAAP, which uses a statewide competitive application process to award funds to projects with the highest potential for reducing transportation-related congestion and air pollution. Many of these projects would be the same types of projects likely to be funded with CRP funding.

Transportation Alternatives Program (TAP)

TAP provides funding to expand travel choices and improve the transportation experience. This can include a variety of projects such as pedestrian and bicycle facilities, recreational trails, safe routes to school projects, community improvements like historic preservation and vegetation management, and environmental mitigation related to stormwater and habitat connectivity. In addition to managing a statewide program, the Iowa DOT targets TAP funding to each of its nine MPOs and 18 RPAs on an annual basis to program towards regional priorities.

Surface Transportation Block Grant Program (STBG)

STBG provides flexible funding for projects to preserve or improve the condition and performance of transportation facilities. STBG funding may be utilized on roadway projects on federal-aid routes; bridge projects on any public road; transit capital improvements; TAP eligible activities; and planning activities. The Iowa DOT targets STBG funding to each of its nine MPOs and 18 RPAs on an annual basis to program towards regional priorities.

Federal Transit Administration (FTA) and Iowa DOT Transit Programs

Various federal and state funding programs support public transit operations, capital equipment, and facilities. Some are directly allocated to transit agencies while others involve grant processes administered through the Iowa DOT. Public transit is a key component of reducing emissions through mode shift.

5.3 Project Selection and Programming

States and MPOs are encouraged to obligate CRP funding for projects that support the implementation of the state's CRS. The Iowa DOT will determine how to program CRP funding for areas of the state under 50,000 population. Since the Iowa Transportation Commission delegated the programming authority for areas over 50,000 to MPOs, each MPO will be responsible for its own CRP project selection. MPOs are well-equipped for this responsibility as they lead their regional planning processes and are also responsible for programming STBG and TAP funding.

The Iowa DOT will provide MPOs with an annual target of CRP funding based on their population. Similar to STBG and TAP funding, MPOs will develop their own project criteria, selection, and prioritization process. This will enable MPOs to focus on the strategies and projects that are regional priorities, which vary across the state. Individual MPOs have expressed interest in prioritizing different project types, such as transit, TAP, or traffic operations. Similarly, the Iowa DOT will program the other CRP funds based on statewide needs and priorities.

MPOs conduct project selection processes by advertising their funding programs, requirements, and timelines to their members and other potential project sponsors. Most MPOs conduct this process during the winter or spring on an annual or biennial basis. Technical Committees (engineers, planners, and other transportation stakeholders) typically review the submitted projects and provide recommendations on funding decisions to the MPO Policy Board (elected officials).

For federal fiscal year 2023, Iowa's MPOs and RPAs are responsible for programming almost \$35 per Iowan between the STBG, TAP, and CRP funding programs. That totals over \$111 million in federal funds.

All MPOs are required to develop a 4-year TIP that is finalized by July each year. Each MPO will outline its project selection processes in its TIP and include all projects programmed for federal transportation funding. The MPO TIPs are incorporated directly into the STIP which is finalized by October 1 each year. The STIP also includes the Iowa DOT's Five-Year Program, which includes Iowa DOT projects determined to be priorities for CRP funding.

An important part of the project selection process and TIP and STIP development is coordination between MPOs/RPAs and the Iowa DOT. 23 U.S.C. 175(e)(4-5) notes that before CRP funds are obligated the state needs to coordinate with MPOs for metropolitan areas and consult with regional transportation planning organizations for rural areas. This will be a part of the CRP programming process that is undertaken for the Iowa DOT's Five-Year Program, MPO TIPs, and STIP development. The Iowa DOT serves on MPO committees and can provide input to the MPO's CRP selection processes. The Iowa DOT will coordinate with MPOs and RPAs to include all state CRP projects in their areas within their TIPs.

In addition to agency-to-agency coordination, the development of these programming documents provides numerous opportunities for public input. The Iowa DOT and all MPOs and RPAs have public participation plans that outline ways that the public is engaged during the planning process and the development of critical documents such as the TIPs and STIP. This routinely includes public meetings and public comments periods; in some cases, the public is specifically invited to provide feedback on proposed projects. These regional public involvement processes help ensure that the needs of a specific area's population are considered in the planning process.



5.4 Projects to Reduce Transportation Emissions

Carbon reduction projects are intended to reduce transportation emissions and implement the previously identified strategies. 23 U.S.C. 101(a)(20) defines project as “any undertaking eligible for assistance under this title.” Since the CRS is a planning, not programming, document, the Iowa DOT and its partner MPOs are focusing on identifying the types of undertakings, or projects, that will utilize CRP and other funding sources to help reduce transportation emissions.

23 U.S.C. 175(d)(2)(B) states that the CRS must identify projects and strategies to reduce transportation emissions. These may include projects and strategies for safe, reliable, and cost-effective options for the following.

- To reduce traffic congestion by facilitating the use of alternatives to single-occupant vehicle trips, including public transportation facilities, pedestrian facilities, bicycle facilities, and shared or pooled vehicle trips within the state or an area served by the applicable MPO, if any.
- To facilitate the use of vehicles or modes of travel that result in lower transportation emissions per person-mile traveled as compared to existing vehicles and modes.
- To facilitate approaches to the construction of transportation assets that result in lower transportation emissions as compared to existing approaches.

The table on the following pages connects the previously identified strategies to two items: which of the three areas of the CRP guidance each strategy relates to, and projects that will help implement the strategies. As noted earlier, the CRS is viewed as a more comprehensive effort than just implementing the CRP funding program, so some projects may be planning level, more in alignment with other funding sources than CRP funding, or contain elements that may not be eligible for CRP funding. Project sponsors will need to verify eligibility with FHWA for any projects that are programmed for CRP, or any other federal funding source, and follow federal requirements to develop and implement the projects.

While not necessarily falling under the umbrella of projects, it is worth noting that the Iowa DOT and MPOs have been and will continue taking actions within their agency operations that improve sustainability and reduce emissions. Some examples of this include making energy efficient building investments, encouraging staff to use transportation options like carpooling and public transit, reducing energy use and transportation emissions through teleworking, and using alternative and renewable fuel vehicles in staff fleets.



Projects to reduce transportation emissions

Strategies (See Section 4.3 for full descriptions)	Alignment with CRP Guidance			Projects include but are not limited to
	Facilitate non-SOV trips	Vehicles/modes with lower emissions	Lower emission construction approaches	
Multimodal Transportation				
➤ Public transit	✓	✓	✓	<ul style="list-style-type: none"> ➤ Bus replacement ➤ Transit facility construction or replacement ➤ Expanded transit service area and/or hours ➤ New intermodal connections
➤ Bicyclists and pedestrians	✓	✓		<ul style="list-style-type: none"> ➤ Construct on- or off-road facilities for bicyclists/pedestrians ➤ Safe routes to school programs or infrastructure
➤ Complete Streets	✓	✓		<ul style="list-style-type: none"> ➤ Complete Streets implementation ➤ Carpool/vanpool programs
➤ Reduce single occupant vehicles	✓	✓		<ul style="list-style-type: none"> ➤ Expanded micromobility options ➤ Electric bicycle incentives
➤ Passenger and commuter rail	✓	✓		<ul style="list-style-type: none"> ➤ Advanced mobility, access, and on-demand transportation service technologies ➤ Planning efforts for passenger or commuter rail ➤ Passenger or commuter rail infrastructure, capital, or service
Operational Efficiency				
➤ Transportation Systems Management and Operations	✓	✓		<ul style="list-style-type: none"> ➤ Procure and utilize TSMO-related equipment or technology to improve flow ➤ Cross-jurisdictional TSMO coordination ➤ Enhanced traffic signal responsiveness or coordination ➤ Enhanced traffic monitoring
➤ State of good repair			✓	<ul style="list-style-type: none"> ➤ Advanced traveler information systems ➤ Advanced traffic management technologies ➤ Address bottleneck locations
➤ Travel Demand Management	✓	✓		<ul style="list-style-type: none"> ➤ Projects that help avoid detours or delays ➤ Integrated corridor management systems ➤ Encourage shifting commute times ➤ Increase vehicle occupancy rate ➤ Enhanced ability to conduct business remotely



Projects to reduce transportation emissions

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	Facilitate non-SOV trips	Vehicles/modes with lower emissions	Lower emission construction approaches	
Alternative Fuels				
➤ Alternative and renewable fuel infrastructure	✓	✓	✓	<ul style="list-style-type: none"> ➤ Acquire, install, or operate alternative and renewable fuel infrastructure to support charging or fueling ➤ Purchase low/no emission transit vehicles ➤ Enhance coordination with other sectors to advance policies, equipment, and infrastructure associated with alternative and renewable fuels
➤ Vehicles that utilize alternative and renewable fuels		✓		
➤ Enhanced coordination		✓	✓	
Construction				
➤ Sustainable elements or construction practices		✓	✓	<ul style="list-style-type: none"> ➤ Use lower carbon materials ➤ Design infrastructure to have lower carbon emissions across its life cycle ➤ Purchase or lease zero-emission construction equipment and vehicles ➤ Use transportation right-of-way for energy infrastructure or generation ➤ Stage construction projects to minimize congestion, detours, and delay ➤ Utilize other modes to reduce demand in construction zones
➤ Cross-sector use of right-of-way			✓	
➤ Reduce carbon impacts during construction projects	✓		✓	
Other				
➤ Integrate transportation and land use planning	✓		✓	<ul style="list-style-type: none"> ➤ Enhance integration of transportation needs into development and redevelopment efforts ➤ Develop carbon reduction strategy ➤ Enhance freight intermodal connections ➤ Reduce emissions at port facilities ➤ Replace street lighting and traffic control devices with energy-efficient alternatives
➤ Improve freight efficiency		✓	✓	
➤ Other projects or programs			✓	