

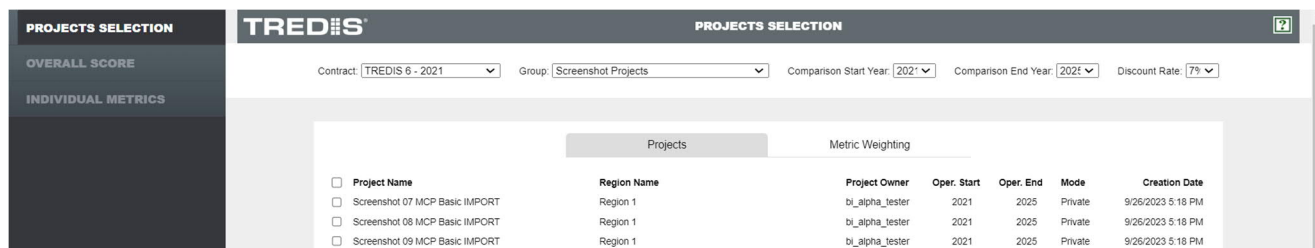
## Multi-Criteria Comparison Tool

The new Multi-Criteria Compare feature allows you to prioritize multiple projects evaluated in TREDIS at once based on weighting competing priorities. The tool, designed in collaboration with Michigan DOT and funded by the State of Michigan, allows the comparison of projects using criteria drawn from Benefit-Cost Analysis, Economic Impact Analysis, and equity considerations. The metrics that may be weighted are

- Jobs
- Percentage of Households Below the Poverty Threshold
- Percentage of Non-White/Hispanic Population
- VMT Savings
- Social Benefits, composed of the following subcategories:
  - Safety Benefits
  - Time and Reliability Savings
  - Vehicle Operating Cost Savings
  - Shipper and Logistics Cost Savings
  - Emissions Benefits
  - Other Benefits

The Multi-Criteria Comparison tool allows you to take into account these disparate considerations, even though they are not all monetized, or if monetized, not in the same units.

A new analysis can be launched from the Project screen via the Multi-Criteria Compare button. On opening, you may select projects for comparison (under the Projects tab), and can modify the weights between the available metrics under the Metric Weighting tab.



After the projects are selected and the weights set, click the Run Comparison button at bottom.

After the analysis is complete, the Overall Score and Individual Metrics screens will be highlighted and accessible via the navigation bar at left.

PROJECTS SELECTION	TREDIS® OVERALL SCORE			
OVERALL SCORE	Table		Chart	
INDIVIDUAL METRICS				
	<b>Project</b>	<b>Cost (\$M)</b>	<b>Score</b>	
	MI Test 002-07 MCP Basic BI SOM 2023-08-30	\$87.74	69	
	MI Test 002-08 MCP Basic BI SOM 2023-08-30	\$87.74	10	
	<b>Metric</b>	<b>Raw Metric Value</b>	<b>Scaled and Normalized</b>	<b>Weight</b>
	Societal Benefits	NA	0.00	0.50
	<b>Metric</b>	<b>Raw Metric Value</b>	<b>Scaled and Normalized</b>	<b>Weight</b>
	Safety Benefits	184,263	0.47	1.00
	Time and Reliability Benefits	17,290,000	43.75	1.00
	Vehicle Operating Cost Benefits	1,074,867	2.72	1.00
	Shipping and Logistics Cost Benefits	449,258	1.14	1.00
	Emissions Benefits	29,710	0.08	1.00
	Other Benefits	92,131	0.23	1.00
	Jobs	151	0.00	0.10
	Poverty Threshold	10%	0.00	0.10
	Proportion of Non-White/Hispanic Population	28%	0.00	0.10
	VMT Savings	1,100,000	50.00	0.20
	MI Test 002-09 MCP Basic BI SOM 2023-08-30	\$87.74	58	
	<b>Metric</b>	<b>Raw Metric Value</b>	<b>Scaled and Normalized</b>	<b>Weight</b>
	Societal Benefits	NA	31.83	0.50

Each project selected is scored, and subcomponents of the total score are shown when the section for a project is expanded. The scoring for individual comparison categories is shown.

For further validation and tracing, the Individual Metrics screen can be consulted to discover more detailed tracing of the scoring process. See the TREDIS User Manual for full details on using the Multi-Criteria Compare and interpreting results, and consult the Multi-Criteria Comparison Technical Documentation for an explanation of the calculations used to combine metrics.