

Overview of Federal Transportation Funding

House Committee on Transportation

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Outline of talk

- Overview of Federal Legislation
- How Federal Funding Works
- COVID Relief Funds (2020-2021)
- IIJA – Infrastructure Investment and Jobs Act (2021)
- IRA – Inflation Reduction Act (2022)
- Congressionally-Directed Spending
- Key Considerations and Concerns

This slide deck focuses primarily on transportation-related highlights of recent federal legislation that are relevant to Vermont. This is not an exhaustive summary of every provision of every bill!



Overview of Federal Legislation

- **Surface transportation programs are typically authorized on a multi-year basis:**
 - ISTEA (1991)
 - TEA-21 (1998)
 - SAFETEA-LU (2005)
 - MAP-21 (2012)
 - FAST Act (2015)
 - **IJA (2021)**
- **Short-term stopgap extensions to authorizations frequently occur. For example, the FAST Act was extended for a year in 2020 until passage of IJA. Extensions keep programs going and money flowing but present challenges to long-term planning.**
- **Surface transportation authorizations legally allow the programs to operate and provide contract authority to obligate funds from the Highway Trust Fund. Authorizations establish the upper limit of funding made available to a program. Apportioned formula funds typically available for obligation October 1.**
 - Obligation = federal government promises to cover the cost.
 - Obligation limitations (ceilings) may be implemented by Congress to control expenditures and limit how much contract authority can be obligated in a given year.
- **However, programs may require a second piece of legislation (appropriations act) to actually fund the activities – and appropriations may be lower than the authorized levels. This is particularly relevant to programs not funded by the Highway Trust Fund. The IJA contained advanced appropriations for some authorized activities but not for all.**
 - Important to also pay attention to annual appropriations bills!



How Federal Funding Works

- **Federal funds typically require a non-federal match. The typical match is 80% federal/20% non-federal, with some exceptions. This is not free money!**
 - Match requirements and project eligibility often depend on “what the project is” and “where it is.”
 - Example: A \$5M bridge project on Route 2 (the federal-aid highway network) requires \$1M of non-federal funds to match \$4M of federal funds. A \$5M bridge on I-89 (interstate) requires \$500K of non-federal funds to match \$4.5M of federal funds (interstate work is 90% federal share).
- **A state’s apportionments do not represent a lump sum of money received in advance. Rather, they represent an amount of contract authority available to the state to obligate and draw down on a reimbursement basis.**
 - As a project is underway, the State pays the bills and the federal government reimburses the state for its share of the project cost.
 - Federal transportation funds can typically be obligated several years after the year in which the funds are apportioned. FHWA formula funds can typically be obligated up to 3 years after the year they are made available.
- **Flexible financing tools exist: Some formula funds can be “flexed” between programs. Tapered match can shift the federal share of progress payments as long as the total cost share for the entire project is consistent with requirements.**
- **Do not think of federal funding as “use or lose” by June 30th. Instead, also think over a multi-year time period.**
 - Most of the federal funds are “project driven” and projects take time (multiple years). Projects also advance at different paces, and have different costs, which is why AOT appropriations and expenditures fluctuate from year to year.
 - The current and upcoming transportation programs will include federal funds apportioned in prior years.
 - Remember – the federal fiscal year (Oct 1 – Sept 30) does not align with the state fiscal year (July 1 – June 30).



COVID Relief Funds (2020-2021)

- **The COVID-19 pandemic significantly impacted transportation systems and revenues.**
 - “User fees” fund a large share of transportation systems. But all of a sudden, those systems saw drastically fewer “users.” There are limits to how far operations can be “scaled down” to respond to decreased demand/lower revenues.
 - Working from home, travel restrictions, curtailment of economic activity
 - Weak demand for motor fuels = lower gas tax and assessment revenues. Prices have since rebounded.
- **Fortunately, federal actions helped the situation:**
 - Stimulus funding led to strong consumer demand for new and used vehicles, which led to historically strong Purchase & Use Tax collections.
 - Federal pandemic relief provided funds at 100% federal share to assist transit, airports (primarily BTV), and surface transportation activities. Funds helped offset losses of revenue related to the pandemic. BUT....by the end of FY2023, any remaining funds will likely be fully spent.

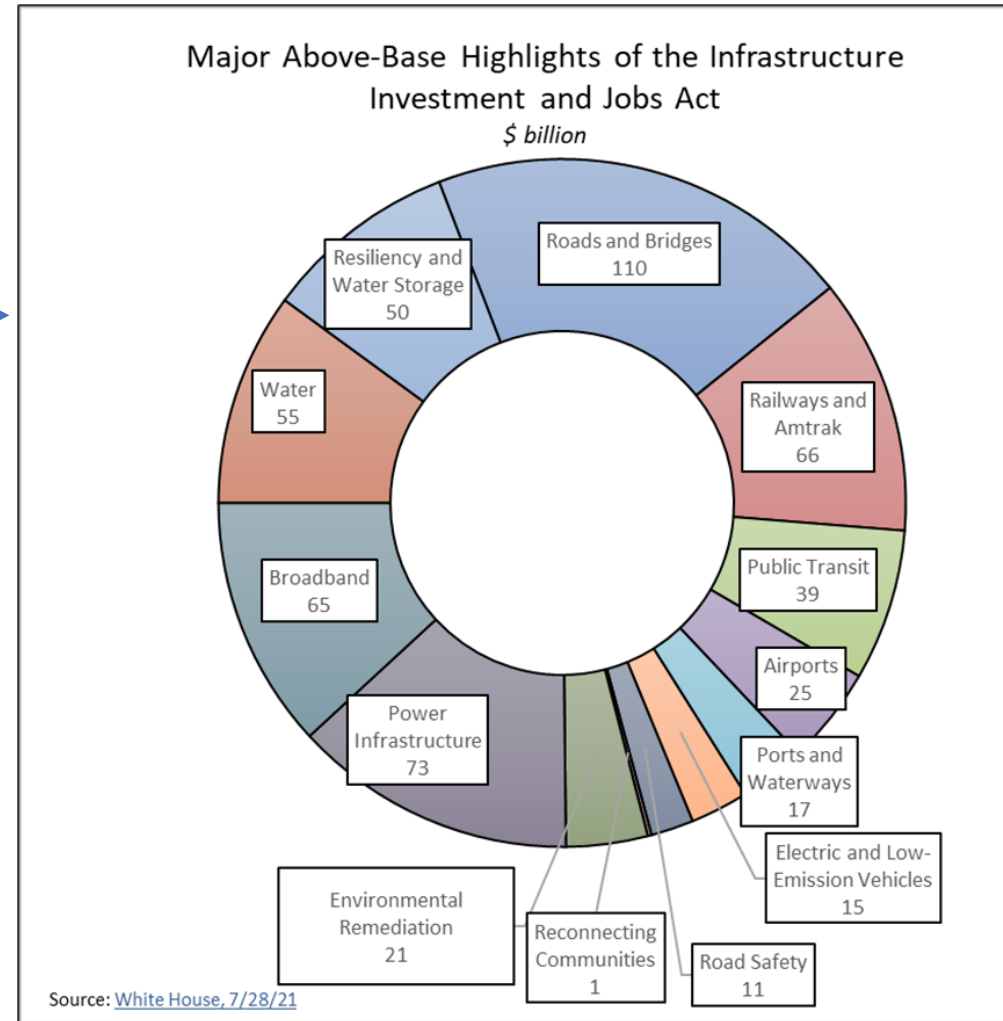
Federal COVID-19 Transportation Funding Received by Vermont				
	CARES Act	CRRSAA	ARPA	Total by Agency
FAA (Airports)	\$9,000,000	\$4,133,430	\$7,922,733	\$21,056,163
FHWA		\$50,360,938		\$50,360,938
FTA (Transit)	\$21,009,964	\$29,296,274	\$14,926,882	\$65,233,120
Total by Bill	\$30,009,964	\$83,790,642	\$22,849,615	\$136,650,221



IIJA – Infrastructure Investment and Jobs Act of 2021 (aka Bipartisan Infrastructure Law)

- \$1.2 trillion bill includes the multi-year surface transportation reauthorization.
- \$550 billion of **NEW** funding over a 5-year period – but not all for transportation!
- Funds specific eligible activities, usually via reimbursements. Not a lump sum of flexible money like CARES Act or ARPA.
- States receive most transportation funding via formula, with rather broad flexibility to meet their unique needs.
- IIJA creates additional discretionary grant opportunities that states (and other entities) may apply for.

NEW Funding



IIJA – Infrastructure Investment and Jobs Act of 2021 (aka Bipartisan Infrastructure Law)

- IIJA contains approx. 53% more surface transportation funding for VT vs. FAST Act over the full life of the law
- Over 5 years, VT expects to receive:
 - \$1.4 billion for federal-aid highway formula funds.
 - \$225 million for bridge replacement/repairs
 - \$21 million for EV charging infrastructure
 - \$77 million for public transit
 - \$28 million for airport infrastructure
- VT will also be eligible to apply for a wide range of competitive grants to fund specific projects and initiatives.
- [Justice40](#): Federal goal of targeting at least 40% of IIJA benefits to disadvantaged communities.
- [FHWA encouraging states](#) to “fix it first,” improve safety for all road users, improve accessibility, address environmental impacts, prioritize infrastructure that is less vulnerable and more resilient to climate change



Major FHWA Formula Funds

- **National Highway Performance Program (NHPP)**
 - Funds a wide range of activities to support the condition and performance of the National Highway System
 - VTrans: Interstate bridges, paving, roadway, state highway bridges, town highway bridges, traffic and safety
- **Surface Transportation Block Grant (STBG)**
 - Most flexible pot of money, but still has restrictions.
 - Projects to preserve and improve federal-aid highways, bridge and tunnel projects, bike/ped infrastructure, transit capital projects, etc.
 - Set-asides for Transportation Alternatives, off-system bridges, population-based geographic distributions
 - VTrans: Bike/Ped, paving, rail crossings, roadway, state highway bridges, town highway bridges, traffic and safety
- **Congestion Mitigation and Air Quality (CMAQ)**
 - Flexible funds to help meet requirements of Clean Air Act, reduce congestion, improve air quality.
 - VTrans: Amtrak subsidy, public transit
- **National Highway Freight Program (NHFP)**
 - Highway-focused formula funding for freight-related projects (e.g. rail, interstate bridges and interchange improvements).
- **Highway Safety Improvement Program (HSIP)**
 - Railway-highway grade crossing set-aside
 - Reduce traffic fatalities and serious injuries on all public roads
- **Metropolitan Planning Program (MPP)**

Some activities can be funded through multiple different funding streams.

Funds may also be “flexed” between programs.

More details: <https://www.fhwa.dot.gov/bipartisan-infrastructure-law/>

CHECK OUT Vermont’s STIP: <https://vtrans.vermont.gov/sites/aot/files/planning/documents/planning/FY22%20STIP%20Final12.22.22.pdf>



NEW IIJA FHWA Formula Funds

NEW FHWA Formula Programs:

- **Carbon Reduction Program:**
 - Traffic management/monitoring, public transportation, trail facilities, replacing lighting/signals, development of carbon reduction strategy.
 - Deployment of EV infrastructure and purchase/lease of zero-emission equipment.
- **PROTECT:**
 - Climate resilience measures
- **National Electric Vehicle Infrastructure (NEVI):**
 - Fast EV charging infrastructure along interstates and alternative fuel corridors
 - Not transferable to other programs.
- **General Fund Bridge Formula Program:**
 - \$225 million small-state minimum for VT
 - Funds may be used at up to 100% federal share for certain off-system bridges (15% set-aside minimum)

Vermont Anticipated Federal Highway Formula Apportionments Under IIJA (\$ millions)				
Core Highway Trust Fund Formula Programs	FAST Act	IIJA	Difference	
	(FFY2016-2020)	(FFY2022-2026)		
National Highway Performance Program	602.6	756.9	154.3	
Surface Transportation Block Grant	301.7	368.2	66.5	
Highway Safety Improvement Program	60.2	79.7	19.6	
Rail-Highway Grade Crossing Program	5.9	6.1	0.3	
Congestion Mitigation & Air Quality Program	61.4	67.2	5.7	
Metropolitan Planning	10.9	14.4	3.5	
National Highway Freight Program	32.3	36.6	4.3	
Carbon Reduction Program	0	32.8	32.8	
PROTECT Program	0	37.3	37.3	
	1,074.9	1,399.2	324.3	
General Fund Supplemental Programs				
Bridge Formula Program	0	225.0	225.0	
National Electric Vehicle Infrastructure	0	21.2	21.2	
GRAND TOTAL	1,074.9	1,645.5	570.5	

Note: FAST Act operated under 1-year extension in FFY2021.

VT is expecting approx. 53% more formula funding from FHWA under IIJA than under FAST Act.



Other IJA Formula Funds

Public Transit: VT expects approx. \$77M/5 Years

- Approx. 35% increase in formula funds
- FTA 5307 Urban Formula Funding – to Green Mountain Transit
- FTA 5311 Rural Formula Funding – AOT distributes to rural providers
- New eligibility for micro mobility (e.g. on-demand microtransit).
- Low/No Bus Grants (Competitive) at \$5.6 billion nationally
- **AOT supplements FTA funding with FHWA CMAQ and STBG funding (approx. \$18M in FFY 2022, \$23M in FFY 2023-2025)**

FRA: Competitive freight and intercity passenger rail grants - \$41 billion

Aviation: VT expects approx. \$28M/5 years from FAA

- BTV largest recipient
- Smaller state airports also receive federal funding for improvements (you will see this in the White Book)



IIJA Grants and Competitive Funding Opportunities

- IIJA contains 26 competitive transportation funding opportunities (20 of them new) to distribute approx. \$100 billion. Not all programs have distributed funds yet.
 - Highway/bridge programs
 - Nationally significant projects
 - Congestion relief
 - Climate resilience
 - Carbon reduction
 - Healthy streets
 - Active transportation
 - Safe streets
- Competitive grants are not guaranteed – applications must be submitted for specific projects/activities. Most require a match. Municipalities also eligible to apply for many competitive grants.
- VT has received funding from (not exhaustive):
 - RAISE Grants: Transportation projects that have significant local or regional impact and improve safety and equity.
 - FAA Airport Improvement Program
 - Low/No Emission Buses (Transit)
 - Buses and Bus Facilities (Transit)
 - EPA Clean School Buses
 - FRA CRISI (rail improvements)



Highlights of IJA Policy Changes

- **STBG:** Set-Aside for Off-System Bridges increased from 15% to 20% (80/20).
- **New Bridge Formula Program (GF):** At least 15% of the \$225M allocated to VT must be spent on off-system bridges at 100% federal.
- **FHWA Emergency Repair Program:** Extends deadline for projects to be eligible for 100% federal share from 180 to 270 days; allows both permanent and temporary repairs to be 100% federal during first 270 days.
- **Amtrak:** Amtrak must pay for the cost of replacing passenger rail cars on State-supported intercity passenger rail services (AOT estimates this avoids \$114M of costs for VT).
- **Climate Change:** For the first time, dedicated streams of federal transportation funds are explicitly earmarked for climate change efforts:
 - NEVI – Fast EV chargers within 1 mile of interstate exits, along alternative fuel corridors - \$5 billion nationally
 - Carbon Reduction – \$6.4 billion nationally
 - Projects that reduce transportation emissions, trails, public transportation projects, congestion management, etc.
 - PROTECT – Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation Program - \$7.3 billion nationally
 - Planning, resilience improvements, community resilience and evacuation routes, at-risk coastal infrastructure.
 - New EPA Clean School Bus Competitive Grants - \$5 billion nationally



IJA Grants and Competitive Funding Opportunities

Below is a non-exhaustive list of federal competitive transportation funding announcements to VT since passage of IJA:

Reference Line #	Federal Agency and Funding Stream	Recipient	Amount of Award	FFY	Date of Announcement	Purpose	
1	FAA - Airport Improvement Program	Agency of Transportation	\$ 135,000	FY 2022	5/12/2022	Morse (Bennington) - Conduct/Update Miscellaneous Study	https://www.faa.gov/sites/faa.gov/files/AIP-2022_FullList.pdf
2	FAA - Airport Improvement Program	Burlington International Airport	\$ 1,425,541	FY 2022	5/12/2022	Burlington - Construt taxiway	
3	FAA - Airport Improvement Program	Agency of Transportation	\$ 81,000	FY 2022	5/12/2022	Middlebury - Obstructions marking/lighting/removal	
4	FAA - Airport Improvement Program	Agency of Transportation	\$ 250,000	FY 2022	5/12/2022	Morrisville/Stowe - Expand apron, extend taxiway	
5	FAA - Airport Improvement Program	Agency of Transportation	\$ 185,000	FY 2022	5/12/2022	Rutland - Install airfield guidance signs, rehab taxiway	
6	FAA - Airport Improvement Program	Burlington International Airport	\$ 270,000	FY 2022	6/7/2022	Burlington - Environmental Assessment/Plan/Study	
7	FAA - Airport Improvement Program	Agency of Transportation	\$ 134,000	FY 2022	6/7/2022	Statewide - Improvements to State Airports - pavement, apron, taxiway work.	
8	FAA - Airport Improvement Program	Agency of Transportation	\$ 1,789,564	FY 2022	6/7/2022	Franklin County Airport - runway and lighting work	
9	FAA - Airport Improvement Program	Burlington International Airport	\$ 579,897	FY 2022	7/26/2022	Noise compatibility plan/noise mitigation measures	
10	FAA - Airport Improvement Program	Burlington International Airport	\$ 1,603,855	FY 2022	7/26/2022	Noise mitigation measures	
11	FTA - Low-No	Agency of Transportation	\$ 9,151,125	FY 2022	8/16/2022	Electric buses and charging equipment (Marble Valley and GMT)	https://www.transit.dot.gov/funding/grants/fy-22-fta-bus-and-low-and-no-emission-grant-files/2022-
12	FTA - Buses and Bus Facilities	Agency of Transportation	\$ 3,279,616	FY 2022	8/16/2022	Bus depot, with solar and EV charging (Marble Valley)	
13	FHWA - RAISE Grants	City of St Albans	\$ 7,724,624	FY 2022	8/25/2022	Federal St Multimodal Connector (St Albans)	https://www.transportation.gov/sites/dot.gov/files/2022-
14	FHWA - RAISE Grants	Chittenden County Regional Planning	\$ 2,100,000	FY 2022	8/25/2022	Transit-Oriented Development Plan - NW Vermont	
15	FHWA - RAISE Grants	Agency of Transportation	\$ 24,800,000	FY 2022	8/25/2022	Winooski River Bridge Replacement	
16	FAA - Airport Improvement Program	Burlington International Airport	\$ 3,340,059	FY 2022	8/30/2022	Rehabilitate taxiway	https://www.faa.gov/sites/faa.gov/files/AIP-2022_FullList.pdf
17	FHWA - Emergency Relief	Agency of Transportation	\$ 1,500,000	FY 2022	8/31/2022	6/29/17 Storms and Severe Flooding	https://highways.dot.gov/newsroom/us-department-transportation-announces-5132-million-emergency-relief-roads-and-bridges
18	EPA - Clean School Bus	Bennington-Rutland Supervisory Unio	\$ 1,580,000	FY 2022	9/29/2022	4 electric buses	https://www.epa.gov/cleanschoolbus/awarded-clean-school-bus-program-rebates
19	EPA - Clean School Bus	White River Valley Supervisory Union	\$ 1,185,000	FY 2022	9/29/2022	3 electric buses	
20	EPA - Clean School Bus	Windsor Central Supervisory Union	\$ 1,185,000	FY 2022	9/29/2022	3 electric buses	
21	EPA - Clean School Bus	Caledonia Central Supervisory Union	\$ 395,000	FY 2022	9/29/2022	1 electric bus	



IRA – Inflation Reduction Act (2022)

- Inflation Reduction Act (IRA) of 2022 focuses on deficit reduction, lowering drug/health care costs, investing in domestic energy production, and promoting clean energy and energy efficiency. Much of the bill focuses on tax credits and funding opportunities directed to end recipients.
- **IRA contains no formula-based transportation funding.** However, the IRA does include some competitive grants that **could** support transportation activities. We're still waiting on a lot of guidance!
- **EPA – Greenhouse Gas Reduction Fund (\$27 billion):** Deployment/use of zero-emission technologies, lower GHG emissions.
- **EPA – Climate Pollution Reduction Grants (\$5 billion):** Planning and implementing plans to reduce GHG emissions.
- **FHWA – Neighborhood Access and Equity Grant Program (\$3.16 billion):** Projects that improve connectivity or reduce environmental burdens on disadvantaged or underserved communities.
- **FHWA - Low-Carbon Transportation Materials Grants (\$2 billion):** Reimburse/incentivize use of lower carbon construction materials on federal-aid highway projects.
- **DOT – Sustainable Aviation Fuel Grants (\$290 million):** Projects that produce, transport, blend, store, sustainable aviation fuel; projects that develop, demonstrate, or apply low-emission aviation technologies.



IRA Changes to Federal Clean Vehicle Tax Credits

- IRA made significant changes to federal tax credits for electric vehicles.
- For **NEW** electric, plug-in electric and fuel cell electric vehicles:
 - August 17, 2022 – New North America assembly requirement took effect.
 - As of January 1, 2023:
 - 200,000-vehicle manufacturer caps abolished (reinstating eligibility for GM and Tesla)
 - Vehicle eligibility for \$7,500 max tax credit is based on domestic battery manufacturing and sourcing requirements:
 - \$3,750 if battery critical minerals sourcing requirements are met.
 - Requirements begin at 40% in 2023 and increase to 80% in 2027 and later.
 - \$3,750 if battery manufacturing requirements are met.
 - Requirements begin at 50% in 2023, 60% for 2024 and 2025, then increase 10%/year to 100% by 2029.
 - Vehicle must have an MSRP <\$80,000 for vans, SUVs, pickups.
 - All other vehicles must have an MSRP <\$55,000.
 - Income limits - \$150K single, \$225K head of household, \$300K joint filers.
 - Credits do not apply to vehicles placed in service after 2032.
 - Transferability of credit to dealers – beginning in 2024, purchasers can work directly with dealers to have value of tax credit passed through to point of sale.

<https://www.irs.gov/credits-deductions/credits-for-new-clean-vehicles-purchased-in-2023-or-after>

Treasury has not yet issued guidance for the new battery sourcing requirements – expected in March.



IRA Changes to Federal Clean Vehicle Tax Credits

- **IRA creates a new tax credit for **USED** electric, plug-in electric and fuel cell electric vehicles (Beginning January 1, 2023).**
 - Max of \$4,000
 - Vehicle must be a model year at least two years prior to the year of purchase
 - Vehicle may not have a purchase price above \$25,000.
 - Income limits - \$75K single, \$112.5K head of household, \$150K joint filers
 - Recipient cannot receive more than one credit every three years, only one credit per vehicle.
 - Does not apply to vehicles acquired after 2032.
- **New Commercial Clean Vehicle Tax Credit.**
 - 15% of the cost of the vehicle (or 30% for vehicles not powered by gas or diesel), or the incremental cost differential of the vehicle in relation to a comparable vehicle.
 - Max of \$7,400 for vehicles <14,000 lbs, \$40,000 for other vehicles.
 - Does not apply to vehicles acquired after 2032.
 - *Notice that the domestic battery sourcing and manufacturing rules don't apply to commercial vehicles...*



IRA Other Transportation Tax Credit/Financing Provisions

- **Clean Heavy-Duty Vehicles (EPA):**
 - \$1 billion grant/rebate program to replace medium and heavy duty vehicles (e.g. school buses, trucks) with zero-emission vehicles.
 - Incremental additional cost of replacing the vehicle with a zero-emission vehicle
- **Alternative Fuel Refueling Property Tax Credit** - 30% of equipment/installation costs up to \$100K per property. Beginning in 2023, property must be placed in service within a low-income or rural area.
- **Clean Fuels Tax Credits:**
 - Biodiesel and biofuel extended through 2024
 - New tax credit for sustainable aviation fuel through 2024
 - New 10-year credit for production of clean hydrogen.
 - New tax credit for domestic clean fuel production beginning in 2025 with inflationary adjustments to credit value.
- **Vehicle Production:**
 - \$3 billion: DOE loans to facilities that manufacture advanced vehicles that emit low or no greenhouse gases
 - \$2 billion: DOE grants for domestic production of efficient hybrid, plug-in electric hybrid, plug-in electric drive, and hydrogen fuel cell vehicles.



Congressionally-Directed Spending

Below is a list of Vermont transportation-related congressionally-directed spending items included in recent federal appropriations laws. List is not exhaustive of all congressionally-directed spending items.

FFY 2022	
Burlington Airport Jet Bridge and Passenger Hold Room	\$2,000,000
Burlington Airport Taxiway Extension to General Aviation Ramp	\$5,000,000
Highgate Airport Runway Extension	\$2,000,000
Lamoille Valley Rail Trail	\$2,000,000
Essex Jct Multimodal Train/Bus Station Redevelopment	\$3,000,000
White River Jct Amtrak Station Platform Reconstruction	\$800,000
Total:	\$14,800,000
https://www.appropriations.senate.gov/imo/media/doc/THUD_CDS_V6.PDF https://www.sanders.senate.gov/wp-content/uploads/Sen.-Sanders-FY2022-Congressionally-Directed-Spending-Requests.pdf	

FFY 2023	
Burlington Airport Terminal Improvements	\$34,000,000
Burlington Church St Side St (Cherry) Project	\$12,000,000
Missisquoi Valley Rail Trail Rehab/Extension	\$1,440,000
Bellows Falls Intermodal Transportation Ctr Rehab	\$1,800,000
Amtrak Stations Rehab	\$1,600,000
Capstone – Community Rides VT – Transit Scaled for Rural VT (HUD)	\$750,000
Total:	\$51,590,000
https://www.appropriations.senate.gov/imo/media/doc/THUD_DISCL_20221216.pdf https://www.sanders.senate.gov/wp-content/uploads/FY23-Marker-Bills-Projects-Included.pdf	



Key Considerations and Concerns

- State's ability to meet its future match requirements
 - *How are state revenues trending as Vermont continues to recover from the pandemic?*
 - *Strategic use of scarce state funds to leverage federal funds in order to maximize investment/impact*
 - *Need to meet match requirements for anticipated competitive grants – not just formula funds*
- Inflation eroding the purchasing power of additional IJA funds.
- Labor costs and workforce/contractor availability
- Supply chain challenges
- What will happen with the broader economy post-COVID? Interest rates, fuel prices, discretionary income, consumer purchasing, travel, etc.
- It takes time for federal agencies to issue guidance, FAQs, stand up new grant programs, issue funding awards, etc.
- Many unknowns – federal waivers of certain requirements (domestic sourcing)?
- Will Congress fully fund the IJA in future appropriations bills?
- **Be mindful of tradeoffs and opportunity costs.** T-Funds are scarce and highly flexible. Using \$1 of T-Fund for something not federally eligible vs. using that \$1 to leverage federal money and generate \$5 of total project investment.



Resources

- Drive Electric VT: <https://www.driveelectricvt.com/incentives/federal-incentives>
- White House IIJA Guidebook: <https://www.whitehouse.gov/wp-content/uploads/2022/05/BUILDING-A-BETTER-AMERICA-V2.pdf>
- FHWA IIJA Overview: <https://www.fhwa.dot.gov/bipartisan-infrastructure-law/>
- IIJA Guidance: <https://www.fhwa.dot.gov/bipartisan-infrastructure-law/guidance.cfm>
- USDOT Vermont IIJA Fact Sheet: https://www.transportation.gov/sites/dot.gov/files/2022-01/BIL_Vermont.pdf
- FRA BIL Website: <https://railroads.dot.gov/BIL>
- FTA BIL Website: <https://www.transit.dot.gov/BIL>
- FAA BIL Website: <https://www.faa.gov/bil>
- White House IRA Guidebook: <https://ljfo.vermont.gov/assets/Subjects/Inflation-Reduction-Act/982565676b/Inflation-Reduction-Act-Guidebook.pdf>
- NCSL Summary of IRA: <https://ljfo.vermont.gov/assets/Subjects/Inflation-Reduction-Act/e15b4086bb/NCSL-Summary-Inflation-Reduction-Act.pdf>
- AFDC Federal Laws and Incentives: https://afdc.energy.gov/laws/fed_summary

