



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF AIR AND RADIATION
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
2000 TRAVERWOOD DRIVE
ANN ARBOR, MI 48105-2498

March 12, 2024

MEMORANDUM

SUBJECT:	LMDV FRM OMEGA Effects, Pre-processing, Vehicle Rates
FROM:	Todd Sherwood, Engineer, Assessment and Standards Division
TO:	Docket EPA-HQ-OAR-2022-0829

Attached find a zip file of the OMEGA effects supporting the Light- and Medium-Duty Vehicle Final Rulemaking. Also included are files used for pre-processing of the context fleet and to generate vehicle emission rates. Included in the zip file:

```
LMDV_FRM_OMEGA_Effects_Preproc_VehRates:.
| contents.txt
| OMEGA-effects-2.3.0-win_2024.3.0.exe
| OMEGA_Effects_LD_MD_Join_v1.3.0.exe
|
+---omega_effects_ld
| +---2024_02_27_16_06_31_LDV_central_to2055_20240227
| | +---20240304_140206_ld_0227_central
| | | 20240304_140206_benefits_annual.csv
| | | 20240304_140206_cost_effects_annual.csv
| | | 20240304_140206_egu_inventory_details.csv
| | | 20240304_140206_MY_24_period_costs.csv
| | | 20240304_140206_MY_8_period_costs.csv
| | | 20240304_140206_MY_period_physical_effects.csv
| | | 20240304_140206_physical_effects_annual.csv
| | | 20240304_140206_physical_effects_annual_action_minus_no_action.csv
| | | 20240304_140206_refinery_emission_rate_details.csv
| | | 20240304_140206_safety_effects_by_body_style_summary.csv
| | | 20240304_140206_safety_effects_summary.csv
| | | 20240304_140206_social_effects_global_ghg_annual.csv
| | | context_fuel_cost_per_mile.csv
| | | effects_ld.csv
| | | effects_messages.log
| | | requirements.txt
| |
| | +---AltA_inputs
| | | 2024_02_27_16_06_31_LDV_central_to2055_20240227_AltA_vehicles.csv
| | | 2024_02_27_16_06_31_LDV_central_to2055_20240227_AltA_vehicle_annual_data.csv
| | | electricity_prices_ipm_action.csv
| | | emission_rates_vehicles_with_gpf.csv
| | | powertrain_cost_frm_20240221.csv
| |
| | +---AltB_inputs
| | | 2024_02_27_16_06_31_LDV_central_to2055_20240227_AltB_vehicles.csv
| | | 2024_02_27_16_06_31_LDV_central_to2055_20240227_AltB_vehicle_annual_data.csv
| | | electricity_prices_ipm_action.csv
| | | emission_rates_vehicles_with_gpf.csv
| | | powertrain_cost_frm_20240221.csv
```

```

+---batch_inputs
|   annual_vmt_fixed_by_age_ice_bev_phev-body_style_20230508.csv
|   context_fuel_prices_20231010.csv
|   context_stock_vmt_ld.csv
|   cost_factors_congestion_noise.csv
|   cost_factors_criteria.csv
|   cost_factors_energysecurity.csv
|   cost_factors_insurance_and_taxes_20240218.csv
|   cost_factors_scghg_2020.csv
|   cpi_price_deflators.csv
|   egu_data.csv
|   fatality_rates.csv
|   general_inputs_for_effects.csv
|   implicit_price_deflators_20230602.csv
|   legacy_fleet_ld.csv
|   maintenance_cost.csv
|   onroad_fuels_20240222.csv
|   refinery_data.csv
|   refueling_cost.csv
|   repair_cost.csv
|   reregistration_fixed_by_age_ice_bev_phev-body_style_20230508.csv
|   safety_values_nhtsa_nprm.csv
|
+---code
|   batch_settings.py
|   omega_effects_main.py
|   session_settings.py
|   set_paths.py
|   __init__.py
|
+---consumer
|   annual_vmt_fixed_by_age.py
|   cost_factors_insurance_and_taxes.py
|   deregionalizer.py
|   reregistration_fixed_by_age.py
|   __init__.py
|
+---context
|   context_stock_vmt.py
|   cpi_price_deflators.py
|   electricity_prices.py
|   electricity_prices_aeo.py
|   electricity_prices_and_charge_shares.py
|   fuel_prices.py
|   ip_deflators.py
|   maintenance_cost.py
|   onroad_fuels.py
|   powertrain_cost.py
|   refueling_cost.py
|   repair_cost.py
|   __init__.py
|
+---effects
|   benefits.py
|   context_fuel_cost_per_mile.py
|   cost_effects.py
|   cost_factors_congestion_noise.py
|   cost_factors_criteria.py
|   cost_factors_energysecurity.py
|   cost_factors_scghg.py
|   discounting_benefits.py
|   discounting_costs.py
|   egu_data.py
|   egu_inventory.py
|   emission_rates_egu.py
|   emission_rates_refinery.py

```

```

| | | emission_rates_vehicles.py
| | | emission_rate_curves_vehicles.py
| | | fatality_rates.py
| | | legacy_fleet.py
| | | physical_effects.py
| | | refinery_data.py
| | | refinery_inventory_and_oil_imports.py
| | | safety_effects.py
| | | safety_values.py
| | | sum_social_effects.py
| | | total_inventory.py
| | | vehicles.py
| | | vehicle_annual_data.py
| | | vehicle_inventory.py
| | | vmt_adjustments.py
| | | __init__.py
|
| +---general
| | effects_log.py
| | file_id_and_save.py
| | general_functions.py
| | general_inputs_for_effects.py
| | input_validation.py
| | __init__.py
|
| +---test_inputs
| | effects_ld.csv
| | effects_md.csv
|
| +---context_inputs
| | 2024_02_27_16_06_31_LDV_central_to2055_20240227_NTR-noIRA_vehicles.csv
| | 2024_02_27_16_06_31_LDV_central_to2055_20240227_NTR-noIRA_vehicle_annual_data.csv
| | electricity_prices_aeo.csv
|
| +---Final_inputs
| | 2024_02_27_16_06_31_LDV_central_to2055_20240227_Final_vehicles.csv
| | 2024_02_27_16_06_31_LDV_central_to2055_20240227_Final_vehicle_annual_data.csv
| | electricity_prices_ipm_action.csv
| | emission_rates_vehicles_with_gpf.csv
| | powertrain_cost_frm_20240221.csv
|
| +---modified_inputs
| | 20240304_140206_cost_factors_criteria.csv
| | 20240304_140206_cost_factors_scghg.csv
| | 20240304_140206_electricity_prices_AltA.csv
| | 20240304_140206_electricity_prices_AltB.csv
| | 20240304_140206_electricity_prices_Final.csv
| | 20240304_140206_electricity_prices_NTR.csv
|
| +---NTR_inputs
| | 2024_02_27_16_06_31_LDV_central_to2055_20240227_NTR_vehicles.csv
| | 2024_02_27_16_06_31_LDV_central_to2055_20240227_NTR_vehicle_annual_data.csv
| | electricity_prices_ipm_no_action.csv
| | emission_rates_vehicles_no_gpf.csv
| | powertrain_cost_frm_20240221.csv
|
| +---20240304_144122_ld_0227_central_deets
| | 20240304_144122_benefits_annual.csv
| | 20240304_144122_cost_effects_annual.csv
| | 20240304_144122_egu_inventory_details.csv
| | 20240304_144122_MY_24_period_costs.csv
| | 20240304_144122_MY_8_period_costs.csv
| | 20240304_144122_MY_period_physical_effects.csv
| | 20240304_144122_physical_effects_annual.csv
| | 20240304_144122_physical_effects_annual_action_minus_no_action.csv
| | 20240304_144122_refinery_emission_rate_details.csv
| | 20240304_144122_safety_effects_by_body_style_summary.csv

```

```

| | 20240304_144122_safety_effects_summary.csv
| | 20240304_144122_social_effects_global_ghg_annual.csv
| | context_fuel_cost_per_mile.parquet
| | effects_ld.csv
| | effects_messages.log
| | Final_cost_effects.parquet
| | Final_physical_effects.parquet
| | Final_safety_effects.parquet
| | NTR_cost_effects.parquet
| | NTR_physical_effects.parquet
| | NTR_safety_effects.parquet
| | requirements.txt
|
| +---batch_inputs
| | annual_vmt_fixed_by_age_ice_bev_phev-body_style_20230508.csv
| | context_fuel_prices_20231010.csv
| | context_stock_vmt_ld.csv
| | cost_factors_congestion_noise.csv
| | cost_factors_criteria.csv
| | cost_factors_energysecurity.csv
| | cost_factors_insurance_and_taxes_20240218.csv
| | cost_factors_scghg_2020.csv
| | cpi_price_deflators.csv
| | egu_data.csv
| | fatality_rates.csv
| | general_inputs_for_effects.csv
| | implicit_price_deflators_20230602.csv
| | legacy_fleet_ld.csv
| | maintenance_cost.csv
| | onroad_fuels_20240222.csv
| | refinery_data.csv
| | refueling_cost.csv
| | repair_cost.csv
| | reregistration_fixed_by_age_ice_bev_phev-body_style_20230508.csv
| | safety_values_nhtsa_nprm.csv
|
| +---code
| | .bumpversion.cfg
| | batch_settings.py
| | omega_effects_main.py
| | session_settings.py
| | set_paths.py
| | __init__.py
|
| +---consumer
| | annual_vmt_fixed_by_age.py
| | cost_factors_insurance_and_taxes.py
| | deregionalizer.py
| | reregistration_fixed_by_age.py
| | __init__.py
|
| +---context
| | context_stock_vmt.py
| | cpi_price_deflators.py
| | electricity_prices.py
| | electricity_prices_aeo.py
| | electricity_prices_and_charge_shares.py
| | fuel_prices.py
| | ip_deflators.py
| | maintenance_cost.py
| | onroad_fuels.py
| | powertrain_cost.py
| | refueling_cost.py
| | repair_cost.py
| | __init__.py
|
| +---effects

```

```

| | | benefits.py
| | | context_fuel_cost_per_mile.py
| | | cost_effects.py
| | | cost_factors_congestion_noise.py
| | | cost_factors_criteria.py
| | | cost_factors_energysecurity.py
| | | cost_factors_scghg.py
| | | discounting_benefits.py
| | | discounting_costs.py
| | | egu_data.py
| | | egu_inventory.py
| | | emission_rates_egu.py
| | | emission_rates_refinery.py
| | | emission_rates_vehicles.py
| | | emission_rate_curves_vehicles.py
| | | fatality_rates.py
| | | legacy_fleet.py
| | | physical_effects.py
| | | refinery_data.py
| | | refinery_inventory_and_oil_imports.py
| | | safety_effects.py
| | | safety_values.py
| | | sum_social_effects.py
| | | total_inventory.py
| | | vehicles.py
| | | vehicle_annual_data.py
| | | vehicle_inventory.py
| | | vmt_adjustments.py
| | | __init__.py
| | +---general
| | | effects_log.py
| | | file_id_and_save.py
| | | general_functions.py
| | | general_inputs_for_effects.py
| | | input_validation.py
| | | __init__.py
| | +---test_inputs
| | | effects_ld.csv
| | | effects_md.csv
| | +---__pycache__
| | | batch_settings.cpython-38.pyc
| | | omega_effects_main.cpython-38.pyc
| | | session_settings.cpython-38.pyc
| | | set_paths.cpython-38.pyc
| | | __init__.cpython-38.pyc
| | +---context_inputs
| | | 2024_02_27_16_06_31_LDV_central_to2055_20240227_NTR-noIRA_vehicles.csv
| | | 2024_02_27_16_06_31_LDV_central_to2055_20240227_NTR-noIRA_vehicle_annual_data.csv
| | | electricity_prices_aeo.csv
| | +---Final_inputs
| | | 2024_02_27_16_06_31_LDV_central_to2055_20240227_Final_vehicles.csv
| | | 2024_02_27_16_06_31_LDV_central_to2055_20240227_Final_vehicle_annual_data.csv
| | | electricity_prices_ipm_action.csv
| | | emission_rates_vehicles_with_gpf.csv
| | | powertrain_cost_frm_20240221.csv
| | +---modified_inputs
| | | 20240304_144122_cost_factors_criteria.csv
| | | 20240304_144122_cost_factors_scghg.csv
| | | 20240304_144122_electricity_prices_Final.csv
| | | 20240304_144122_electricity_prices_NTR.csv

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+---NTR_inputs
| 2024_02_27_16_06_31_LDV_central_to2055_20240227_NTR_vehicles.csv
| 2024_02_27_16_06_31_LDV_central_to2055_20240227_NTR_vehicle_annual_data.csv
| electricity_prices_ipm_no_action.csv
| emission_rates_vehicles_no_gpf.csv
| powertrain_cost_frm_20240221.csv
|
+---20240305_102708_ld_0227_refinery_sensitivity
| 20240305_102708_benefits_annual.csv
| 20240305_102708_cost_effects_annual.csv
| 20240305_102708_egu_inventory_details.csv
| 20240305_102708_MY_24_period_costs.csv
| 20240305_102708_MY_8_period_costs.csv
| 20240305_102708_MY_period_physical_effects.csv
| 20240305_102708_physical_effects_annual.csv
| 20240305_102708_physical_effects_annual_action_minus_no_action.csv
| 20240305_102708_refinery_emission_rate_details.csv
| 20240305_102708_safety_effects_by_body_style_summary.csv
| 20240305_102708_safety_effects_summary.csv
| 20240305_102708_social_effects_global_ghg_annual.csv
| context_fuel_cost_per_mile.csv
| effects_ld_refinery_sensitivity.csv
| effects_messages.log
| requirements.txt
|
+---AltA_inputs
| 2024_02_27_16_06_31_LDV_central_to2055_20240227_AltA_vehicles.csv
| 2024_02_27_16_06_31_LDV_central_to2055_20240227_AltA_vehicle_annual_data.csv
| electricity_prices_ipm_action.csv
| emission_rates_vehicles_with_gpf.csv
| powertrain_cost_frm_20240221.csv
|
+---AltB_inputs
| 2024_02_27_16_06_31_LDV_central_to2055_20240227_AltB_vehicles.csv
| 2024_02_27_16_06_31_LDV_central_to2055_20240227_AltB_vehicle_annual_data.csv
| electricity_prices_ipm_action.csv
| emission_rates_vehicles_with_gpf.csv
| powertrain_cost_frm_20240221.csv
|
+---batch_inputs
| annual_vmt_fixed_by_age_ice_bev_phev-body_style_20230508.csv
| context_fuel_prices_20231010.csv
| context_stock_vmt_ld.csv
| cost_factors_congestion_noise.csv
| cost_factors_criteria.csv
| cost_factors_energysecurity_refinery_sensitivity.csv
| cost_factors_insurance_and_taxes_20240218.csv
| cost_factors_scghg_2020.csv
| cpi_price_deflators.csv
| egu_data.csv
| fatality_rates.csv
| general_inputs_for_effects.csv
| implicit_price_deflators_20230602.csv
| legacy_fleet_ld.csv
| maintenance_cost.csv
| onroad_fuels_20240222.csv
| refinery_data_refinery_sensitivity.csv
| refueling_cost.csv
| repair_cost.csv
| reregistration_fixed_by_age_ice_bev_phev-body_style_20230508.csv
| safety_values_nhtsa_nprm.csv
|
+---code
| batch_settings.py
| omega_effects_main.py
| session_settings.py
| set_paths.py

```

```

| | | __init__.py
| | |
| | | +---consumer
| | | | annual_vmt_fixed_by_age.py
| | | | cost_factors_insurance_and_taxes.py
| | | | deregionalizer.py
| | | | reregistration_fixed_by_age.py
| | | | __init__.py
| | |
| | | +---context
| | | | context_stock_vmt.py
| | | | cpi_price_deflators.py
| | | | electricity_prices.py
| | | | electricity_prices_aeo.py
| | | | electricity_prices_and_charge_shares.py
| | | | fuel_prices.py
| | | | ip_deflators.py
| | | | maintenance_cost.py
| | | | onroad_fuels.py
| | | | powertrain_cost.py
| | | | refueling_cost.py
| | | | repair_cost.py
| | | | __init__.py
| | |
| | | +---effects
| | | | benefits.py
| | | | context_fuel_cost_per_mile.py
| | | | cost_effects.py
| | | | cost_factors_congestion_noise.py
| | | | cost_factors_criteria.py
| | | | cost_factors_energysecurity.py
| | | | cost_factors_scghg.py
| | | | discounting_benefits.py
| | | | discounting_costs.py
| | | | egu_data.py
| | | | egu_inventory.py
| | | | emission_rates_egu.py
| | | | emission_rates_refinery.py
| | | | emission_rates_vehicles.py
| | | | emission_rate_curves_vehicles.py
| | | | fatality_rates.py
| | | | legacy_fleet.py
| | | | physical_effects.py
| | | | refinery_data.py
| | | | refinery_inventory_and_oil_imports.py
| | | | safety_effects.py
| | | | safety_values.py
| | | | sum_social_effects.py
| | | | total_inventory.py
| | | | vehicles.py
| | | | vehicle_annual_data.py
| | | | vehicle_inventory.py
| | | | vmt_adjustments.py
| | | | __init__.py
| | |
| | | +---general
| | | | effects_log.py
| | | | file_id_and_save.py
| | | | general_functions.py
| | | | general_inputs_for_effects.py
| | | | input_validation.py
| | | | __init__.py
| | |
| | | +---test_inputs
| | | | effects_ld.csv
| | | | effects_md.csv

```

```

+---context_inputs
| 2024_02_27_16_06_31_LDV_central_to2055_20240227_NTR-noIRA_vehicles.csv
| 2024_02_27_16_06_31_LDV_central_to2055_20240227_NTR-noIRA_vehicle_annual_data.csv
| electricity_prices_aeo.csv
|
+---Final_inputs
| 2024_02_27_16_06_31_LDV_central_to2055_20240227_Final_vehicles.csv
| 2024_02_27_16_06_31_LDV_central_to2055_20240227_Final_vehicle_annual_data.csv
| electricity_prices_ipm_action.csv
| emission_rates_vehicles_with_gpf.csv
| powertrain_cost_frm_20240221.csv
|
+---modified_inputs
| 20240305_102708_cost_factors_criteria.csv
| 20240305_102708_cost_factors_scghg.csv
| 20240305_102708_electricity_prices_AltA.csv
| 20240305_102708_electricity_prices_AltB.csv
| 20240305_102708_electricity_prices_Final.csv
| 20240305_102708_electricity_prices_NTR.csv
|
+---NTR_inputs
| 2024_02_27_16_06_31_LDV_central_to2055_20240227_NTR_vehicles.csv
| 2024_02_27_16_06_31_LDV_central_to2055_20240227_NTR_vehicle_annual_data.csv
| electricity_prices_ipm_no_action.csv
| emission_rates_vehicles_no_gpf.csv
| powertrain_cost_frm_20240221.csv
|
+---20240305_102853_ld_0227_interim_scghg
| 20240305_102853_benefits_annual.csv
| 20240305_102853_cost_effects_annual.csv
| 20240305_102853_egu_inventory_details.csv
| 20240305_102853_MY_24_period_costs.csv
| 20240305_102853_MY_8_period_costs.csv
| 20240305_102853_MY_period_physical_effects.csv
| 20240305_102853_physical_effects_annual.csv
| 20240305_102853_physical_effects_annual_action_minus_no_action.csv
| 20240305_102853_refinery_emission_rate_details.csv
| 20240305_102853_safety_effects_by_body_style_summary.csv
| 20240305_102853_safety_effects_summary.csv
| 20240305_102853_social_effects_global_ghg_annual.csv
| context_fuel_cost_per_mile.csv
| effects_ld_interim_scghg.csv
| effects_messages.log
| requirements.txt
|
+---batch_inputs
| annual_vmt_fixed_by_age_ice_bev_phev-body_style_20230508.csv
| context_fuel_prices_20231010.csv
| context_stock_vmt_ld.csv
| cost_factors_congestion_noise.csv
| cost_factors_criteria.csv
| cost_factors_energysecurity.csv
| cost_factors_insurance_and_taxes_20240218.csv
| cost_factors_interim_scghg_2022.csv
| cpi_price_deflators.csv
| egu_data.csv
| fatality_rates.csv
| general_inputs_for_effects.csv
| implicit_price_deflators_20230602.csv
| legacy_fleet_ld.csv
| maintenance_cost.csv
| onroad_fuels_20240222.csv
| refinery_data.csv
| refueling_cost.csv
| repair_cost.csv
| reregistration_fixed_by_age_ice_bev_phev-body_style_20230508.csv
| safety_values_nhtsa_nprm.csv

```

```

+---code
|   batch_settings.py
|   omega_effects_main.py
|   session_settings.py
|   set_paths.py
|   __init__.py
|
+---consumer
|   annual_vmt_fixed_by_age.py
|   cost_factors_insurance_and_taxes.py
|   deregionalizer.py
|   reregistration_fixed_by_age.py
|   __init__.py
|
+---context
|   context_stock_vmt.py
|   cpi_price_deflators.py
|   electricity_prices.py
|   electricity_prices_aeo.py
|   electricity_prices_and_charge_shares.py
|   fuel_prices.py
|   ip_deflators.py
|   maintenance_cost.py
|   onroad_fuels.py
|   powertrain_cost.py
|   refueling_cost.py
|   repair_cost.py
|   __init__.py
|
+---effects
|   benefits.py
|   context_fuel_cost_per_mile.py
|   cost_effects.py
|   cost_factors_congestion_noise.py
|   cost_factors_criteria.py
|   cost_factors_energysecurity.py
|   cost_factors_scghg.py
|   discounting_benefits.py
|   discounting_costs.py
|   egu_data.py
|   egu_inventory.py
|   emission_rates_egu.py
|   emission_rates_refinery.py
|   emission_rates_vehicles.py
|   emission_rate_curves_vehicles.py
|   fatality_rates.py
|   legacy_fleet.py
|   physical_effects.py
|   refinery_data.py
|   refinery_inventory_and_oil_imports.py
|   safety_effects.py
|   safety_values.py
|   sum_social_effects.py
|   total_inventory.py
|   vehicles.py
|   vehicle_annual_data.py
|   vehicle_inventory.py
|   vmt_adjustments.py
|   __init__.py
|
+---general
|   effects_log.py
|   file_id_and_save.py
|   general_functions.py
|   general_inputs_for_effects.py
|   input_validation.py

```

```

| | | __init__.py
| | |
| | | +---test_inputs
| | | | effects_ld.csv
| | | | effects_md.csv
| | |
| | | +---context_inputs
| | | | 2024_02_27_16_06_31_LDV_central_to2055_20240227_NTR-noIRA_vehicles.csv
| | | | 2024_02_27_16_06_31_LDV_central_to2055_20240227_NTR-noIRA_vehicle_annual_data.csv
| | | | electricity_prices_aeo.csv
| | |
| | | +---Final_inputs
| | | | 2024_02_27_16_06_31_LDV_central_to2055_20240227_Final_vehicles.csv
| | | | 2024_02_27_16_06_31_LDV_central_to2055_20240227_Final_vehicle_annual_data.csv
| | | | electricity_prices_ipm_action.csv
| | | | emission_rates_vehicles_with_gpf.csv
| | | | powertrain_cost_frm_20240221.csv
| | |
| | | +---modified_inputs
| | | | 20240305_102853_cost_factors_criteria.csv
| | | | 20240305_102853_cost_factors_scghg.csv
| | | | 20240305_102853_electricity_prices_Final.csv
| | | | 20240305_102853_electricity_prices_NTR.csv
| | |
| | | +---NTR_inputs
| | | | 2024_02_27_16_06_31_LDV_central_to2055_20240227_NTR_vehicles.csv
| | | | 2024_02_27_16_06_31_LDV_central_to2055_20240227_NTR_vehicle_annual_data.csv
| | | | electricity_prices_ipm_no_action.csv
| | | | emission_rates_vehicles_no_gpf.csv
| | | | powertrain_cost_frm_20240221.csv
| | |
+---omega_effects_lmdv
| | +---20240304_162944_frm
| | | 20240304_162944_lmdv_benefits_annual.csv
| | | 20240304_162944_lmdv_cost_effects_annual.csv
| | | 20240304_162944_lmdv_employment_analysis_costs.csv
| | | 20240304_162944_lmdv_physical_effects_annual.csv
| | | 20240304_162944_lmdv_physical_effects_annual_action_minus_no_action.csv
| | | 20240304_162944_lmdv_safety_effects_by_body_style_summary.csv
| | | 20240304_162944_lmdv_safety_effects_summary.csv
| | | 20240304_162944_lmdv_social_effects_domestic_ghg_annual.csv
| | | 20240304_162944_lmdv_social_effects_global_ghg_annual.csv
| | | effects_ld_md_join.csv
| | | messages.log
| |
| | +---20240305_131902_frm_refinery_sensitivity
| | | 20240305_131902_lmdv_benefits_annual.csv
| | | 20240305_131902_lmdv_cost_effects_annual.csv
| | | 20240305_131902_lmdv_physical_effects_annual.csv
| | | 20240305_131902_lmdv_physical_effects_annual_action_minus_no_action.csv
| | | 20240305_131902_lmdv_safety_effects_by_body_style_summary.csv
| | | 20240305_131902_lmdv_safety_effects_summary.csv
| | | 20240305_131902_lmdv_social_effects_domestic_ghg_annual.csv
| | | 20240305_131902_lmdv_social_effects_global_ghg_annual.csv
| | | effects_ld_md_join_refinery_sensitivity.csv
| | | messages.log
| |
| | +---20240305_131938_frm_interim_scghg
| | | 20240305_131938_lmdv_benefits_annual.csv
| | | 20240305_131938_lmdv_cost_effects_annual.csv
| | | 20240305_131938_lmdv_physical_effects_annual.csv
| | | 20240305_131938_lmdv_physical_effects_annual_action_minus_no_action.csv
| | | 20240305_131938_lmdv_safety_effects_by_body_style_summary.csv
| | | 20240305_131938_lmdv_safety_effects_summary.csv
| | | 20240305_131938_lmdv_social_effects_domestic_ghg_annual.csv
| | | 20240305_131938_lmdv_social_effects_global_ghg_annual.csv
| | | effects_ld_md_join_interim_scghg.csv

```

```

| | messages.log
| |
| +---excel_files
| | 20240304_140206_egu_inventory_details.xlsx
| | 20240304_140206_MY_24_period_costs_ld.xlsx
| | 20240304_140206_MY_8_period_costs_ld.xlsx
| | 20240304_140306_MY_24_period_costs_md.xlsx
| | 20240304_140306_MY_8_period_costs_md.xlsx
| | 20240304_162944_lmdv_employment_analysis_costs.xlsx
| | 20240304_162944_lmdv_physical_effects_annual.xlsx
| | 20240304_162944_lmdv_physical_effects_annual_action_minus_no_action.xlsx
| | 20240304_162944_lmdv_safety_effects_by_body_style_summary.xlsx
| | 20240304_162944_lmdv_social_effects_global_ghg_annual.xlsx
| |
| +---interim_scghg
| | 20240305_131938_lmdv_social_effects_global_ghg_annual.xlsx
| |
| +---refinery_sensitivity
| | 20240305_131902_lmdv_physical_effects_annual.xlsx
| | 20240305_131902_lmdv_physical_effects_annual_action_minus_no_action.xlsx
| |
| +---omega_effects_md
| | +---20240304_140306_md_0301b_central
| | | 20240304_140306_benefits_annual.csv
| | | 20240304_140306_cost_effects_annual.csv
| | | 20240304_140306_egu_inventory_details.csv
| | | 20240304_140306_MY_24_period_costs.csv
| | | 20240304_140306_MY_8_period_costs.csv
| | | 20240304_140306_MY_period_physical_effects.csv
| | | 20240304_140306_physical_effects_annual.csv
| | | 20240304_140306_physical_effects_annual_action_minus_no_action.csv
| | | 20240304_140306_refinery_emission_rate_details.csv
| | | 20240304_140306_safety_effects_by_body_style_summary.csv
| | | 20240304_140306_safety_effects_summary.csv
| | | 20240304_140306_social_effects_global_ghg_annual.csv
| | | context_fuel_cost_per_mile.csv
| | | effects_md.csv
| | | effects_messages.log
| | | requirements.txt
| | |
| | +---batch_inputs
| | | annual_vmt_fixed_by_age_ice_bev_phev-body_style_20230508.csv
| | | context_fuel_prices_MD_20231010.csv
| | | context_stock_vmt_md.csv
| | | cost_factors_congestion_noise.csv
| | | cost_factors_criteria.csv
| | | cost_factors_energysecurity.csv
| | | cost_factors_insurance_and_taxes_20240218.csv
| | | cost_factors_scghg_2020.csv
| | | cpi_price_deflators.csv
| | | egu_data.csv
| | | fatality_rates.csv
| | | general_inputs_for_effects.csv
| | | implicit_price_deflators_20230602.csv
| | | legacy_fleet_md.csv
| | | maintenance_cost.csv
| | | onroad_fuels_20240222.csv
| | | refinery_data.csv
| | | refueling_cost.csv
| | | repair_cost.csv
| | | reregistration_fixed_by_age_ice_bev_phev-body_style_20230508.csv
| | | safety_values_nhtsa_nprm.csv
| | |
| | +---code
| | | batch_settings.py
| | | omega_effects_main.py
| | | session_settings.py

```

```

| | | set_paths.py
| | | __init__.py
| | |
| | | +---consumer
| | | | annual_vmt_fixed_by_age.py
| | | | cost_factors_insurance_and_taxes.py
| | | | deregionalizer.py
| | | | reregistration_fixed_by_age.py
| | | | __init__.py
| | |
| | | +---context
| | | | context_stock_vmt.py
| | | | cpi_price_deflators.py
| | | | electricity_prices.py
| | | | electricity_prices_aeo.py
| | | | electricity_prices_and_charge_shares.py
| | | | fuel_prices.py
| | | | ip_deflators.py
| | | | maintenance_cost.py
| | | | onroad_fuels.py
| | | | powertrain_cost.py
| | | | refueling_cost.py
| | | | repair_cost.py
| | | | __init__.py
| | |
| | | +---effects
| | | | benefits.py
| | | | context_fuel_cost_per_mile.py
| | | | cost_effects.py
| | | | cost_factors_congestion_noise.py
| | | | cost_factors_criteria.py
| | | | cost_factors_energysecurity.py
| | | | cost_factors_scghg.py
| | | | discounting_benefits.py
| | | | discounting_costs.py
| | | | egu_data.py
| | | | egu_inventory.py
| | | | emission_rates_egu.py
| | | | emission_rates_refinery.py
| | | | emission_rates_vehicles.py
| | | | emission_rate_curves_vehicles.py
| | | | fatality_rates.py
| | | | legacy_fleet.py
| | | | physical_effects.py
| | | | refinery_data.py
| | | | refinery_inventory_and_oil_imports.py
| | | | safety_effects.py
| | | | safety_values.py
| | | | sum_social_effects.py
| | | | total_inventory.py
| | | | vehicles.py
| | | | vehicle_annual_data.py
| | | | vehicle_inventory.py
| | | | vmt_adjustments.py
| | | | __init__.py
| | |
| | | +---general
| | | | effects_log.py
| | | | file_id_and_save.py
| | | | general_functions.py
| | | | general_inputs_for_effects.py
| | | | input_validation.py
| | | | __init__.py
| | |
| | | +---test_inputs
| | | | effects_ld.csv
| | | | effects_md.csv

```

```

| |
| |
| | +---context_inputs
| | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_HDP2-noIRA_vehicles.csv
| | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_HDP2-noIRA_vehicle_annual_data.csv
| | | electricity_prices_aeo.csv
| | |
| | +---Final_inputs
| | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_Final_vehicles.csv
| | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_Final_vehicle_annual_data.csv
| | | electricity_prices_ipm_action.csv
| | | emission_rates_vehicles_with_gpf.csv
| | | powertrain_cost_frm_20240221.csv
| | |
| | +---HDP2+ACT_inputs
| | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_HDP2+ACT_vehicles.csv
| | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_HDP2+ACT_vehicle_annual_data.csv
| | | electricity_prices_ipm_no_action.csv
| | | emission_rates_vehicles_no_gpf.csv
| | | powertrain_cost_frm_20240221.csv
| | |
| | +---modified_inputs
| | | 20240304_140306_cost_factors_criteria.csv
| | | 20240304_140306_cost_factors_scghg.csv
| | | 20240304_140306_electricity_prices_Final.csv
| | | 20240304_140306_electricity_prices_HDP2+ACT.csv
| | |
| | +---20240304_143037_md_0301b_central_deets
| | | 20240304_143037_benefits_annual.csv
| | | 20240304_143037_cost_effects_annual.csv
| | | 20240304_143037_egu_inventory_details.csv
| | | 20240304_143037_MY_24_period_costs.csv
| | | 20240304_143037_MY_8_period_costs.csv
| | | 20240304_143037_MY_period_physical_effects.csv
| | | 20240304_143037_physical_effects_annual.csv
| | | 20240304_143037_physical_effects_annual_action_minus_no_action.csv
| | | 20240304_143037_refinery_emission_rate_details.csv
| | | 20240304_143037_safety_effects_by_body_style_summary.csv
| | | 20240304_143037_safety_effects_summary.csv
| | | 20240304_143037_social_effects_global_ghg_annual.csv
| | | context_fuel_cost_per_mile.parquet
| | | effects_md.csv
| | | effects_messages.log
| | | Final_cost_effects.parquet
| | | Final_physical_effects.parquet
| | | Final_safety_effects.parquet
| | | HDP2+ACT_cost_effects.parquet
| | | HDP2+ACT_physical_effects.parquet
| | | HDP2+ACT_safety_effects.parquet
| | | requirements.txt
| | |
| | +---batch_inputs
| | | annual_vmt_fixed_by_age_ice_bev_phev-body_style_20230508.csv
| | | context_fuel_prices_MD_20231010.csv
| | | context_stock_vmt_md.csv
| | | cost_factors_congestion_noise.csv
| | | cost_factors_criteria.csv
| | | cost_factors_energysecurity.csv
| | | cost_factors_insurance_and_taxes_20240218.csv
| | | cost_factors_scghg_2020.csv
| | | cpi_price_deflators.csv
| | | egu_data.csv
| | | fatality_rates.csv
| | | general_inputs_for_effects.csv
| | | implicit_price_deflators_20230602.csv
| | | legacy_fleet_md.csv
| | | maintenance_cost.csv
| | | onroad_fuels_20240222.csv

```

```

refinery_data.csv
refueling_cost.csv
repair_cost.csv
reregistration_fixed_by_age_ice_beveph-body_style_20230508.csv
safety_values_nhtsa_nprm.csv

+---code
.bumpversion.cfg
batch_settings.py
omega_effects_main.py
session_settings.py
set_paths.py
__init__.py

+---consumer
annual_vmt_fixed_by_age.py
cost_factors_insurance_and_taxes.py
deregionalizer.py
reregistration_fixed_by_age.py
__init__.py

+---context
context_stock_vmt.py
cpi_price_deflators.py
electricity_prices.py
electricity_prices_aeo.py
electricity_prices_and_charge_shares.py
fuel_prices.py
ip_deflators.py
maintenance_cost.py
onroad_fuels.py
powertrain_cost.py
refueling_cost.py
repair_cost.py
__init__.py

+---effects
benefits.py
context_fuel_cost_per_mile.py
cost_effects.py
cost_factors_congestion_noise.py
cost_factors_criteria.py
cost_factors_energysecurity.py
cost_factors_scghg.py
discounting_benefits.py
discounting_costs.py
egu_data.py
egu_inventory.py
emission_rates_egu.py
emission_rates_refinery.py
emission_rates_vehicles.py
emission_rate_curves_vehicles.py
fatality_rates.py
legacy_fleet.py
physical_effects.py
refinery_data.py
refinery_inventory_and_oil_imports.py
safety_effects.py
safety_values.py
sum_social_effects.py
total_inventory.py
vehicles.py
vehicle_annual_data.py
vehicle_inventory.py
vmt_adjustments.py
__init__.py

```

```

| | | +---general
| | | | effects_log.py
| | | | file_id_and_save.py
| | | | general_functions.py
| | | | general_inputs_for_effects.py
| | | | input_validation.py
| | | | __init__.py
| | |
| | | +---test_inputs
| | | | effects_ld.csv
| | | | effects_md.csv
| | |
| | | +---__pycache__
| | | | batch_settings.cpython-38.pyc
| | | | omega_effects_main.cpython-38.pyc
| | | | session_settings.cpython-38.pyc
| | | | set_paths.cpython-38.pyc
| | | | __init__.cpython-38.pyc
| | |
| | | +---context_inputs
| | | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_HDP2-noIRA_vehicles.csv
| | | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_HDP2-noIRA_vehicle_annual_data.csv
| | | | electricity_prices_aeo.csv
| | |
| | | +---Final_inputs
| | | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_Final_vehicles.csv
| | | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_Final_vehicle_annual_data.csv
| | | | electricity_prices_ipm_action.csv
| | | | emission_rates_vehicles_with_gpf.csv
| | | | powertrain_cost_frm_20240221.csv
| | |
| | | +---HDP2+ACT_inputs
| | | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_HDP2+ACT_vehicles.csv
| | | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_HDP2+ACT_vehicle_annual_data.csv
| | | | electricity_prices_ipm_no_action.csv
| | | | emission_rates_vehicles_no_gpf.csv
| | | | powertrain_cost_frm_20240221.csv
| | |
| | | +---modified_inputs
| | | | 20240304_143037_cost_factors_criteria.csv
| | | | 20240304_143037_cost_factors_scghg.csv
| | | | 20240304_143037_electricity_prices_Final.csv
| | | | 20240304_143037_electricity_prices_HDP2+ACT.csv
| | |
| | | +---20240305_115024_md_0301b_refinery_sensitivity
| | | | 20240305_115024_benefits_annual.csv
| | | | 20240305_115024_cost_effects_annual.csv
| | | | 20240305_115024_egu_inventory_details.csv
| | | | 20240305_115024_MY_24_period_costs.csv
| | | | 20240305_115024_MY_8_period_costs.csv
| | | | 20240305_115024_MY_period_physical_effects.csv
| | | | 20240305_115024_physical_effects_annual.csv
| | | | 20240305_115024_physical_effects_annual_action_minus_no_action.csv
| | | | 20240305_115024_refinery_emission_rate_details.csv
| | | | 20240305_115024_safety_effects_by_body_style_summary.csv
| | | | 20240305_115024_safety_effects_summary.csv
| | | | 20240305_115024_social_effects_global_ghg_annual.csv
| | | | context_fuel_cost_per_mile.csv
| | | | effects_md_refinery_sensitivity.csv
| | | | effects_messages.log
| | | | requirements.txt
| | |
| | | +---batch_inputs
| | | | annual_vmt_fixed_by_age_ice_bevev_phev-body_style_20230508.csv
| | | | context_fuel_prices_MD_20231010.csv
| | | | context_stock_vmt_md.csv
| | | | cost_factors_congestion_noise.csv

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| | cost_factors_criteria.csv
| | cost_factors_energysecurity_refinery_sensitivity.csv
| | cost_factors_insurance_and_taxes_20240218.csv
| | cost_factors_scghg_2020.csv
| | cpi_price_deflators.csv
| | egu_data.csv
| | fatality_rates.csv
| | general_inputs_for_effects.csv
| | implicit_price_deflators_20230602.csv
| | legacy_fleet_md.csv
| | maintenance_cost.csv
| | onroad_fuels_20240222.csv
| | refinery_data_refinery_sensitivity.csv
| | refueling_cost.csv
| | repair_cost.csv
| | reregistration_fixed_by_age_ice_bev_phev-body_style_20230508.csv
| | safety_values_nhtsa_nprm.csv
|
| +---code
| | batch_settings.py
| | omega_effects_main.py
| | session_settings.py
| | set_paths.py
| | __init__.py
|
| +---consumer
| | annual_vmt_fixed_by_age.py
| | cost_factors_insurance_and_taxes.py
| | deregionalizer.py
| | reregistration_fixed_by_age.py
| | __init__.py
|
| +---context
| | context_stock_vmt.py
| | cpi_price_deflators.py
| | electricity_prices.py
| | electricity_prices_aeo.py
| | electricity_prices_and_charge_shares.py
| | fuel_prices.py
| | ip_deflators.py
| | maintenance_cost.py
| | onroad_fuels.py
| | powertrain_cost.py
| | refueling_cost.py
| | repair_cost.py
| | __init__.py
|
| +---effects
| | benefits.py
| | context_fuel_cost_per_mile.py
| | cost_effects.py
| | cost_factors_congestion_noise.py
| | cost_factors_criteria.py
| | cost_factors_energysecurity.py
| | cost_factors_scghg.py
| | discounting_benefits.py
| | discounting_costs.py
| | egu_data.py
| | egu_inventory.py
| | emission_rates_egu.py
| | emission_rates_refinery.py
| | emission_rates_vehicles.py
| | emission_rate_curves_vehicles.py
| | fatality_rates.py
| | legacy_fleet.py
| | physical_effects.py
| | refinery_data.py

```

```

| | | refinery_inventory_and_oil_imports.py
| | | safety_effects.py
| | | safety_values.py
| | | sum_social_effects.py
| | | total_inventory.py
| | | vehicles.py
| | | vehicle_annual_data.py
| | | vehicle_inventory.py
| | | vmt_adjustments.py
| | | __init__.py
| | |
| | | +---general
| | | | effects_log.py
| | | | file_id_and_save.py
| | | | general_functions.py
| | | | general_inputs_for_effects.py
| | | | input_validation.py
| | | | __init__.py
| | |
| | | +---test_inputs
| | | | effects_ld.csv
| | | | effects_md.csv
| | |
| | | +---context_inputs
| | | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_HDP2-noIRA_vehicles.csv
| | | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_HDP2-noIRA_vehicle_annual_data.csv
| | | | electricity_prices_aeo.csv
| | |
| | | +---Final_inputs
| | | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_Final_vehicles.csv
| | | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_Final_vehicle_annual_data.csv
| | | | electricity_prices_ipm_action.csv
| | | | emission_rates_vehicles_with_gpf.csv
| | | | powertrain_cost_frm_20240221.csv
| | |
| | | +---HDP2+ACT_inputs
| | | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_HDP2+ACT_vehicles.csv
| | | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_HDP2+ACT_vehicle_annual_data.csv
| | | | electricity_prices_ipm_no_action.csv
| | | | emission_rates_vehicles_no_gpf.csv
| | | | powertrain_cost_frm_20240221.csv
| | |
| | | +---modified_inputs
| | | | 20240305_115024_cost_factors_criteria.csv
| | | | 20240305_115024_cost_factors_scghg.csv
| | | | 20240305_115024_electricity_prices_Final.csv
| | | | 20240305_115024_electricity_prices_HDP2+ACT.csv
| | |
| | | +---20240305_130435_md_0301b_interim_scghg
| | | | 20240305_130435_benefits_annual.csv
| | | | 20240305_130435_cost_effects_annual.csv
| | | | 20240305_130435_egu_inventory_details.csv
| | | | 20240305_130435_MY_24_period_costs.csv
| | | | 20240305_130435_MY_8_period_costs.csv
| | | | 20240305_130435_MY_period_physical_effects.csv
| | | | 20240305_130435_physical_effects_annual.csv
| | | | 20240305_130435_physical_effects_annual_action_minus_no_action.csv
| | | | 20240305_130435_refinery_emission_rate_details.csv
| | | | 20240305_130435_safety_effects_by_body_style_summary.csv
| | | | 20240305_130435_safety_effects_summary.csv
| | | | 20240305_130435_social_effects_global_ghg_annual.csv
| | | | context_fuel_cost_per_mile.csv
| | | | effects_md_interim_scghg.csv
| | | | effects_messages.log
| | | | requirements.txt
| | |
| | | +---batch_inputs

```

```

| | annual_vmt_fixed_by_age_ice_bev_phev-body_style_20230508.csv
| | context_fuel_prices_MD_20231010.csv
| | context_stock_vmt_md.csv
| | cost_factors_congestion_noise.csv
| | cost_factors_criteria.csv
| | cost_factors_energysecurity.csv
| | cost_factors_insurance_and_taxes_20240218.csv
| | cost_factors_interim_scghg_2022.csv
| | cpi_price_deflators.csv
| | egu_data.csv
| | fatality_rates.csv
| | general_inputs_for_effects.csv
| | implicit_price_deflators_20230602.csv
| | legacy_fleet_md.csv
| | maintenance_cost.csv
| | onroad_fuels_20240222.csv
| | refinery_data.csv
| | refueling_cost.csv
| | repair_cost.csv
| | reregistration_fixed_by_age_ice_bev_phev-body_style_20230508.csv
| | safety_values_nhtsa_nprm.csv
|
| +---code
| | batch_settings.py
| | omega_effects_main.py
| | session_settings.py
| | set_paths.py
| | __init__.py
|
| +---consumer
| | annual_vmt_fixed_by_age.py
| | cost_factors_insurance_and_taxes.py
| | deregionalizer.py
| | reregistration_fixed_by_age.py
| | __init__.py
|
| +---context
| | context_stock_vmt.py
| | cpi_price_deflators.py
| | electricity_prices.py
| | electricity_prices_aeo.py
| | electricity_prices_and_charge_shares.py
| | fuel_prices.py
| | ip_deflators.py
| | maintenance_cost.py
| | onroad_fuels.py
| | powertrain_cost.py
| | refueling_cost.py
| | repair_cost.py
| | __init__.py
|
| +---effects
| | benefits.py
| | context_fuel_cost_per_mile.py
| | cost_effects.py
| | cost_factors_congestion_noise.py
| | cost_factors_criteria.py
| | cost_factors_energysecurity.py
| | cost_factors_scghg.py
| | discounting_benefits.py
| | discounting_costs.py
| | egu_data.py
| | egu_inventory.py
| | emission_rates_egu.py
| | emission_rates_refinery.py
| | emission_rates_vehicles.py
| | emission_rate_curves_vehicles.py

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| | | fatality_rates.py
| | | legacy_fleet.py
| | | physical_effects.py
| | | refinery_data.py
| | | refinery_inventory_and_oil_imports.py
| | | safety_effects.py
| | | safety_values.py
| | | sum_social_effects.py
| | | total_inventory.py
| | | vehicles.py
| | | vehicle_annual_data.py
| | | vehicle_inventory.py
| | | vmt_adjustments.py
| | | __init__.py
|
| +---general
| | | effects_log.py
| | | file_id_and_save.py
| | | general_functions.py
| | | general_inputs_for_effects.py
| | | input_validation.py
| | | __init__.py
|
| +---test_inputs
| | | effects_id.csv
| | | effects_md.csv
|
| +---context_inputs
| | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_HDP2-noIRA_vehicles.csv
| | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_HDP2-noIRA_vehicle_annual_data.csv
| | | electricity_prices_aeo.csv
|
| +---Final_inputs
| | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_Final_vehicles.csv
| | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_Final_vehicle_annual_data.csv
| | | electricity_prices_ipm_action.csv
| | | emission_rates_vehicles_with_gpf.csv
| | | powertrain_cost_frm_20240221.csv
|
| +---HDP2+ACT_inputs
| | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_HDP2+ACT_vehicles.csv
| | | 2024_03_01_15_51_40_MD_FRM_central_to2055_20240301b_HDP2+ACT_vehicle_annual_data.csv
| | | electricity_prices_ipm_no_action.csv
| | | emission_rates_vehicles_no_gpf.csv
| | | powertrain_cost_frm_20240221.csv
|
| +---modified_inputs
| | | 20240305_130435_cost_factors_criteria.csv
| | | 20240305_130435_cost_factors_scghg.csv
| | | 20240305_130435_electricity_prices_Final.csv
| | | 20240305_130435_electricity_prices_HDP2+ACT.csv
|
| +---omega_preproc
| | | context_aeo.py
| | | requirements.txt
| | | __init__.py
|
| +---20230602-130256_run
| | | context_fuel_prices.csv
| | | context_new_vehicle_market.csv
| | | cpi_price_deflators.csv
| | | implicit_price_deflators.csv
|
| +---aeo_tables
| | +---AEO2020
| | | Components_of_Selected_Petroleum_Product_Prices.csv
| | | Electricity_Supply_Disposition_Prices_and_Emissions.csv

```

```

| | Light-Duty_Vehicle_Sales_by_Technology_Type.csv
| | New_Light-Duty_Vehicle_Prices.csv
| | Summary_of_New_Light-Duty_Vehicle_Size_Class_Attributes.csv
| | Table_39_Light-Duty_Vehicle_Stock_by_Technology_Type.csv
| | Table_7_Transportation_Sector_Key_Indicators_and_Delivered_Energy_Consumption.csv
| | Transportation_Fleet_Car_and_Truck_Sales_by_Type_and_Technology.csv
| |
| +---AEO2021
| | Components_of_Selected_Petroleum_Product_Prices.csv
| | Electricity_Supply_Disposition_Prices_and_Emissions.csv
| | Light-Duty_Vehicle_Sales_by_Technology_Type.csv
| | New_Light-Duty_Vehicle_Prices.csv
| | Summary_of_New_Light-Duty_Vehicle_Size_Class_Attributes.csv
| | Table_39_Light-Duty_Vehicle_Stock_by_Technology_Type.csv
| | Table_7_Transportation_Sector_Key_Indicators_and_Delivered_Energy_Consumption.csv
| | Transportation_Fleet_Car_and_Truck_Sales_by_Type_and_Technology.csv
| |
| +---AEO2022
| | Components_of_Selected_Petroleum_Product_Prices - Copy.csv
| | Components_of_Selected_Petroleum_Product_Prices.csv
| | Electricity_Supply_Disposition_Prices_and_Emissions.csv
| | Light-Duty_Vehicle_Sales_by_Technology_Type.csv
| | New_Light-Duty_Vehicle_Prices.csv
| | Summary_of_New_Light-Duty_Vehicle_Size_Class_Attributes.csv
| | Table_39_Light-Duty_Vehicle_Stock_by_Technology_Type.csv
| | Table_7_Transportation_Sector_Key_Indicators_and_Delivered_Energy_Consumption.csv
| | Transportation_Fleet_Car_and_Truck_Sales_by_Type_and_Technology.csv
| | vmt.xlsx
| |
| +---AEO2023
| | Components_of_Selected_Petroleum_Product_Prices.csv
| | Electricity_Supply_Disposition_Prices_and_Emissions.csv
| | Light-Duty_Vehicle_Sales_by_Technology_Type.csv
| | New_Light-Duty_Vehicle_Prices.csv
| | Summary_of_New_Light-Duty_Vehicle_Size_Class_Attributes.csv
| | Table_35_Transportation_Sector_Energy_Use_by_Mode_and_Type.csv
| | Table_37_Light-Duty_Vehicle_Energy_Consumption_by_Technology_Type_and_Fuel_Type.csv
| | Table_39_Light-Duty_Vehicle_Stock_by_Technology_Type.csv
| | Table_39_Light-Duty_Vehicle_Stock_by_Technology_Type.xlsx
| | Table_43_Transportation_Fleet_Car_and_Truck_Fuel_Consumption_by_Type_and_Technology.csv
| | Table_45_Transportation_Fleet_Car_and_Truck_Stock_by_Type_and_Technology.csv
| | Table_45_Transportation_Fleet_Car_and_Truck_Stock_by_Type_and_Technology.xlsx
| | Table_46_Transportation_Fleet_Car_and_Truck_Vehicle_Miles_Traveled_by_Type_and_Technology.csv
| | Table_7_Transportation_Sector_Key_Indicators_and_Delivered_Energy_Consumption.csv
| | Table_7_Transportation_Sector_Key_Indicators_and_Delivered_Energy_Consumption.xlsx
| |
| +---bea_tables
| | SeriesReport.csv
| | SeriesReport.xlsx
| | SeriesReport_lmdv_nprm.csv
| | SeriesReport_prior-to-20220308.csv
| | Table.csv
| | Table_1.1.9_ImplicitPriceDeflators.csv
| | Table_1.1.9_ImplicitPriceDeflators_lmdv_nprm.csv
| | Table_1.1.9_ImplicitPriceDeflators_prior-to-20220308.csv
| |
| +---mediumduty
| | context_new_vehicle_market_MD.csv
| | context_new_vehicle_market_MD.xlsx
| | hdghg3_YoY_fullOutput_230106e.xlsx
| | MOVES3.R2_Annual_Activity_LD_2017_2060_fuel.xlsx
| |
| +---vehicle_rates
| +---20231031-140853_frm_veh_pw_linear_rates
| | messages.log
| | requirements.txt
| |

```

```

+---code
| | create_figures.py
| | egu_rates_linear.py
| | egu_rates_polys.py
| | general_functions.py
| | main.py
| | moves_id.py
| | run_history.py
| | tool_log.py
| | tool_paths.py
| | tool_settings.py
| | vehicle_pw_linear.py
| | vehicle_rates.py
| | vehicle_rates_ntr_to_omega.py
| | __init__.py
| |
+---input_modules
| | adjust_moves_data.py
| | base_vehicle_rates.py
| | egu_data_for_curves.py
| | egu_data_pw_linear.py
| | general_inputs.py
| | input_files.py
| | merge_moves_data.py
| | moves_odometer.py
| | omega_vmt.py
| | refinery_data.py
| | run_settings.py
| | vehicle_rate_adjustments.py
| | vehicle_scenarios.py
| | __init__.py
| |
+---preproc
| | __init__.py
| |
+---__pycache__
| | create_figures.cpython-38.pyc
| | egu_rates_linear.cpython-38.pyc
| | egu_rates_polys.cpython-38.pyc
| | general_functions.cpython-38.pyc
| | moves_id.cpython-38.pyc
| | run_history.cpython-38.pyc
| | tool_log.cpython-38.pyc
| | tool_paths.cpython-38.pyc
| | tool_settings.cpython-38.pyc
| | vehicle_pw_linear.cpython-38.pyc
| | vehicle_rates.cpython-38.pyc
| | __init__.cpython-38.pyc
| |
+---modified_inputs
+---run_inputs
| | general_inputs.csv
| | LMDV2027_FRM_NoGPF_v1.csv
| | LMDV2027_FRM_WithGPF_v1.csv
| | run_settings.csv
| |
+---run_results
| | vehicle_rates_no_gpf_20231031-140853.csv
| | vehicle_rates_with_gpf_20231031-140853.csv
| |
+---charts

```

Attachments:
LMDV_FRM_OMEGA_Effects_Preproc_VehRates.zip