November 9, 2022

Sharath Kallaje · Ron Stewart FAST Support Team

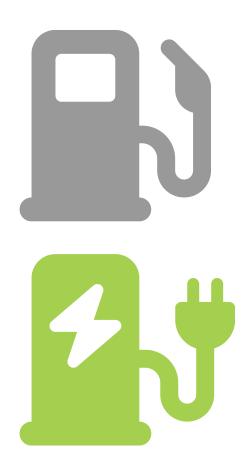
# Federal Automotive Statistical Tool FY 2022 Data Call Status & Review Tools INTERFUEL

# In-progress FY 2022 Data Calls

# Current data calls in FAST

#### FY 2022 Fueling Center & EVSE Inventory Submission

- Captures end-of-FY information for all agency fueling centers and EVSE installations
- Single Excel submission for each agency
  - Pre-filled template available in FAST
  - Download / update / upload for validation
  - Designate submission complete
- Due: Tuesday, 15-Nov
- Status:
  - 6 agencies complete w/fueling centers and/or EVSE
  - 8 agencies complete w/no fueling centers or EVSE
  - 2 agencies in progress



Status as of 08-Nov-2022, source: FAST, https://fastweb.inl.gov/

# Current data calls in FAST

#### FY 2022 Fleet Data Submission

- Captures vehicle and fuel consumption data for all fleet vehicles for FY 2022
  - Vehicle attributes
  - Compliance-related designations
  - Operational data: costs, miles, fuel consumption
- Due: Thursday, 15-Dec
- Status:
  - No agencies complete yet
  - 7 agencies with ~87K vehicles loaded in FAST
  - 2 add'l agencies with ~24K vehicles loaded in FAST Sandbox



## **Current data calls in FAST**

#### **BY 2025 Fleet Projections Submission**

- Captures FY 2023 / 24 / 25 fleet acquisition, disposal, cost projections
- Accompanied by Fleet Management Plan & Budget Narrative
- Supports OMB A-11 budget process
- Due: Late Aug-2023



#### Where should we focus?

#### Fueling Center & EVSE Inventory Submission

- Due soonest (15-Nov)
- Smaller and simpler

#### Fleet Data Submission

- Due next (15-Dec)
- Submit early to provide time for review

#### Fleet Projections Submission

- Due last (Aug-2023)
- Advantages of waiting:
  - Availability of updated narrative template from GSA
  - Develop in coordination with ZEF Strategic Plan
  - Clarity of vehicle availability for acquisition projections



# Reviewing Your Fleet Data Submission

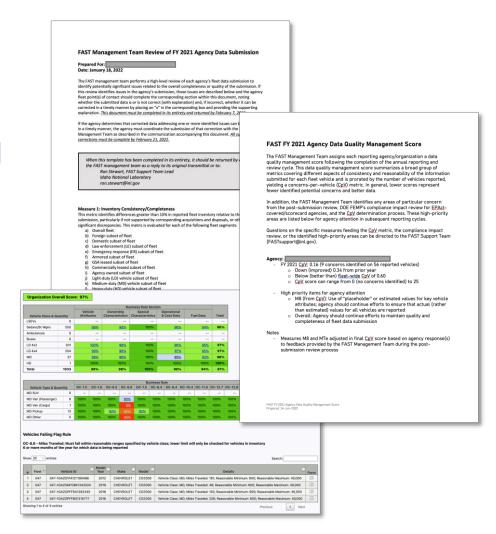
#### Where do we start?

- Review feedback from prior-year submission
- Understand the intent & role of the validation flags
- Load & validate data in FAST
- Use review tools in FAST to identify potential "hot spots"
  - Investigate
  - Correct, if warranted / feasible
  - Load & validate
- Designate submission as complete
- Review preliminary feedback from FAST team



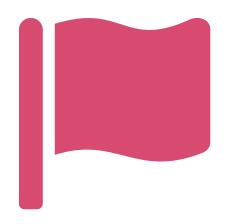
## Review feedback from prior year submission

- Post-submission review from FAST team
- Compliance impact review (EPAct-covered and scorecard agencies)
- Data quality metric & identified priority areas
- FAST's "Vehicle Flagging Rules Summary" for prior year submission



# Understand the intent & role of the validation flags

- Intent: Identify vehicles/vehicle attributes that fall outside "expected" or "typical"
  - Inform agency of *possible* quality concerns
  - Provide opportunity to investigate and correct before finalizing submission
- Role: Some flags factor into data quality metric
- Key points:
  - Flags should be investigated and understood
  - Not everything flagged needs to be corrected





# Understand the intent & role of the validation flags: Flags factoring into FAST's data quality metric

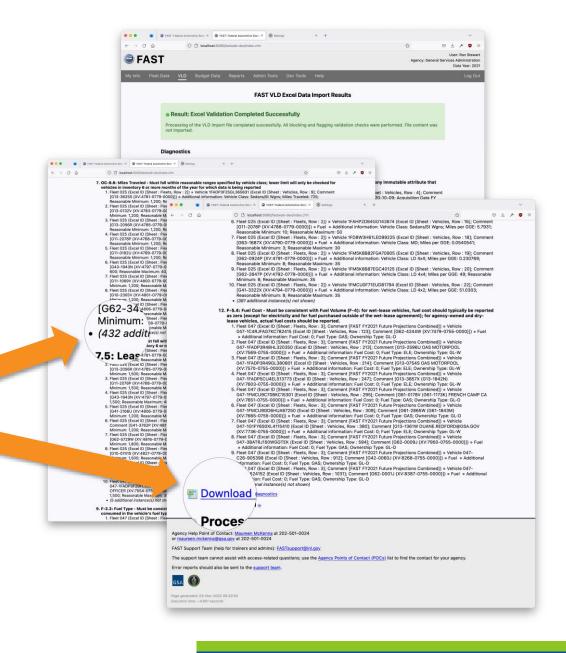
- OC-1.5: Inconsistent (decreasing) acquisition cost compared to prior year submission
- F-2.2: Inconsistent fuel consumption for vehicle fuel type/configuration
- F-2.3: Suspect B100 consumption w/o accompanying DSL consumption
- F-2.4: PHEV missing ELE consumption
- F-4.6: Suspect fuel efficiency based on vehicle miles and fuel consumption (related to DQM measure 6)

- F-5.5: Suspect fuel cost per GGE
- OW-1.3: Vehicles with acquisition date in current FY which also appeared in prior year submission (DQM measure 7a)
- OW-1.4: Vehicles with acquisition date in prior FY which were missing from prior year submission (DQM measure 7b)
- OW-4.4: Vehicles with disposal date in prior year submission also reported in current year submission (DQM measure 7c)
- A-1.5: Changes to typically-static vehicle attributes (DQM measure 7e)

Among top 5 concerns for the overall fleet for FY 2021

#### Load and validate data in FAST

- Resolve any blocking validation failures
  - Flagging validation checks are run only if no blocking validation checks fail
- Use validation diagnostics to identify and investigate any widespread issues
  - Widespread: impacting all or many vehicles
  - Validation failures displayed and available for download
- Import!
  - FAST's review tools need the data loaded (not just validated)



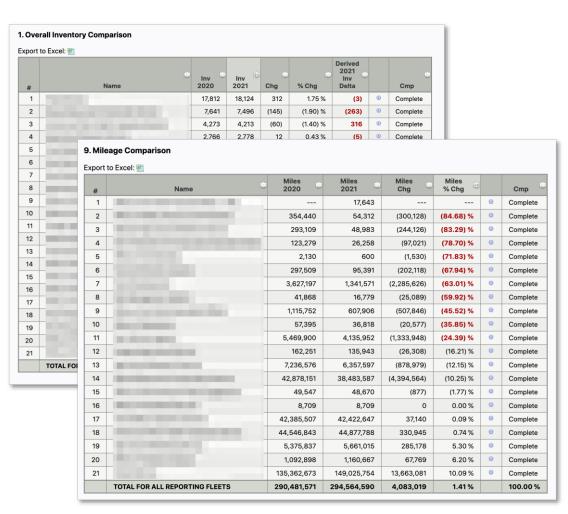
# Use review tools available in FAST: Data Quality & Consistency Report

- High-level trends of inventory, costs, miles, fuel consumption
  - Useful for identifying unexpected gaps or changes in fleet data
- Comparisons of key metrics for consistency of changes
- Useful for looking at entire fleet or specific subsets of vehicles:
  - LE, emergency, armored, foreign vehicles



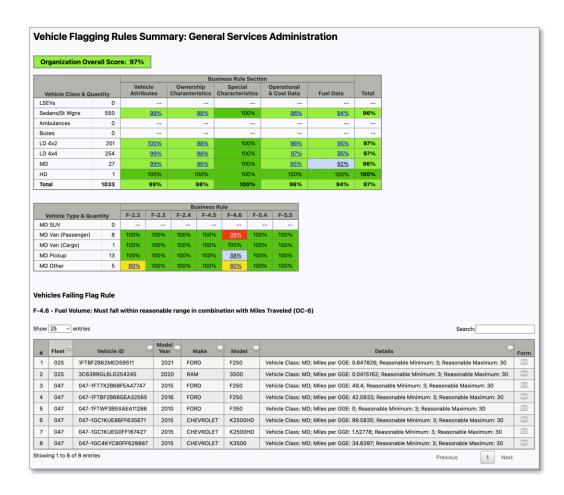
# **Use review tools available in FAST: Data Call Summary Report**

- Tabular companion to the Data Quality
   & Consistency Report
- Tables summarizing key metrics by fleet and comparing to prior year
  - For agencies with extensive reporting hierarchies, useful for identifying missing data
- Tables can be re-sorted to find significant changes



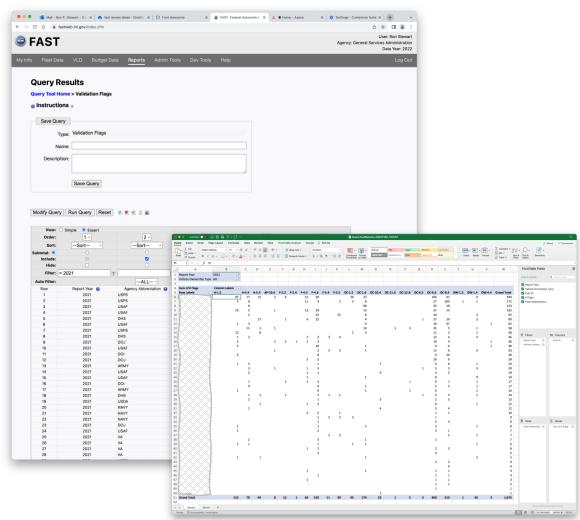
# Use review tools available in FAST: Vehicle Flagging Rules Summary

- Interactive report that helps understand which flags are being generated and on which vehicles
- Explore from top-level summary down to individual vehicle
- A quick demo!



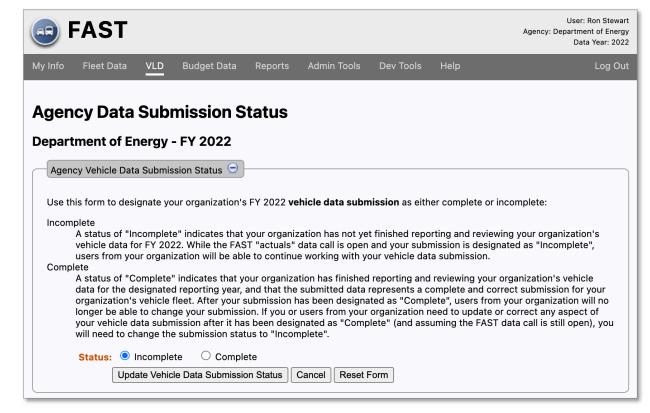
Use review tools available in FAST: Query Tool

- Several valuable query types:
  - Vehicles
  - Fuel
  - Validation Flags
- Export to Excel for further analysis



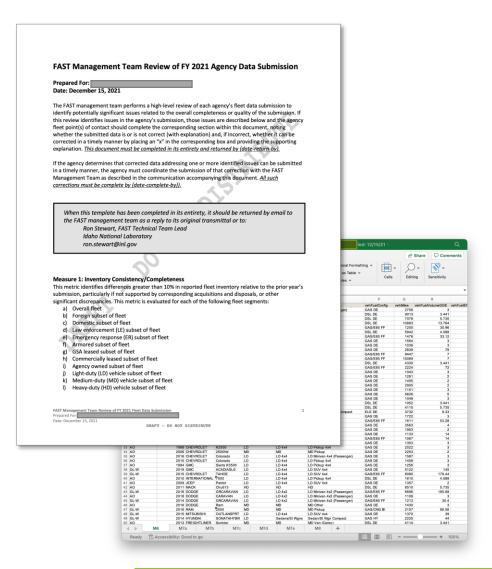
## Designate submission as complete

- Triggers notification to the FAST support team
- FAST support team can generate a preliminary review using the same process as the official post-data call review
  - We try to get these preliminary reviews back to the agency lead quickly
  - Goal is to give agency leads as much time as possible to investigate and address any significant quality issues



#### Review feedback from FAST team

- Same review process we use following close of data call to identify potential quality concerns
  - Written summary
  - Per-vehicle detail for review measures 6-8
  - First look at measure 8: possible place-holder vehicle attributes
- Enables agency leads to begin investigation into concerns that feed data quality metric
  - Agencies may be able to correct some during data call window
  - Longer investigation window can help agency provide detailed responses to the review feedback



#### Other considerations...

- Don't change data just to minimize flags!
- If you correct data based on investigating flags, ensure the correction is made in your MIS
  - Ensures consistency between agency MIS and FAST
  - Prevents same flag being generated in subsequent years
- Where you validate may matter: if you're validating data in the FAST Sandbox, ensure your prior year data is present there
  - Key group of flags look at current year vs prior year versions of vehicles



## Need help?

### **FAST Support Team**

FASTsupport@inl.gov

#### **FAST**

https://fastweb.inl.gov/

#### **FAST Sandbox**

https://fastweb.inl.gov/sandbox/

#### **FAST Help**

https://fastweb.inl.gov/help/



### **Contact Information**

### **Sharath Kallaje**

FAST Support Team
Idaho National Laboratory
sharath.kallaje@inl.gov

#### **Ron Stewart**

FAST Support Team
Idaho National Laboratory
ron.stewart@inl.gov



Battelle Energy Alliance manages INL for the U.S. Department of Energy's Office of Nuclear Energy. INL is the nation's center for nuclear energy research and development, and also performs research in each of DOE's strategic goal areas: energy, national security, science and the environment.