

Report Functional Specification

State Motor Fuel Tax

Indirect Tax Reporting for Oil Products – Release 1

**Disclaimer: This FRD was prepared for a fictional company and using information from AI (Copilot and/or ChatGPT) acting as the stakeholders.*

Version 1.4

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Date last updated: 12-Oct-2025

Table of Contents

1. Document History	3
1.1 Revision History	3
1.2 Document Approval	3
1.3 Distribution	3
2. General Information	4
2.1 Report Name	4
2.2 Purpose.....	4
2.3 Business Context.....	4
3. Report Usage	4
4. Security	5
4.1 User Roles	5
4.2 Access Permissions	5
4.3 Data Sensitivity	5
5. Source Tables	6
5.1 Primary Source Tables.....	6
5.2 Join Logic.....	6
5.3 High-Level Design Link	8
6. Filters & Restrictions	8
7. Prompts.....	8
8. Default Layout.....	9
8.1 Field Order	9
8.2 Groupings, Sorting, Subtotals/Totals	9
8.3 Special Layout	9
8.4 Mockup	10
9. Jump/Link to Other Reports.....	10
10. All Fields Source.....	11
11. Assumptions and Dependencies	12
11.1 Assumptions	12
11.2 Dependencies	12
12.	12
13. Testing Scenarios	13
14. Appendices.....	14
14.1 Data Flow Diagram.....	14
14.2 Sample Data	15
14.3 Data Dictionary	16

1. Document History

1.1 Revision History

Version	Date	Author	Revision Description
1.0	30-Sep-2025	S.F.	Initial draft
1.1	7-Oct-2025	S.F.	Removed several of the measures to simplify the report and added a few characteristic fields so that both codes and descriptions (texts) are available.
1.2	8-Oct-2025	S.F.	Removed License Number, Exemption Type and Filing Status fields from report.
1.3	10-Oct-2025	S.F.	Added mockup.
1.4	12-Oct-2025	S.F.	Finalized source field mappings. Adding join logic, appendices and high-level test scenarios.

1.2 Document Approval

Name	Role	Approve or Review	Date
First Last	Indirect Tax Team Manager	Approve	14-Oct-2025
First Last	IT / ETRM System Owner	Review	14-Oct-2025

1.3 Distribution

Name	Role	Date
First Last	Project Sponsor	13-Oct-2025
First Last	Indirect Tax Team Manager	13-Oct-2025
First Last	Tax Analyst SME	13-Oct-2025
First Last	Trade Operations SME	13-Oct-2025
First Last	Logistics Team SME	13-Oct-2025
First Last	Regulatory Affairs	13-Oct-2025
First Last	Tax Process Architect	13-Oct-2025
First Last	IT / ETRM System Owner	13-Oct-2025
First Last	Solution Designer	13-Oct-2025
First Last	Developer	13-Oct-2025
First Last	QA Team	13-Oct-2025
First Last	Project Manager	13-Oct-2025

2. General Information

2.1 Report Name

State Motor Fuel Tax

2.2 Purpose

[Explain the objective of the report, why it is needed, and the business problem it addresses. Include expanded business terms as necessary.]

To generate the monthly state motor fuel excise tax return by reporting gallons of motor fuel received, transferred, sold, or otherwise moved, categorized by jurisdiction, product type, and exemption status. This report supports timely and accurate state tax filings and prevents compliance penalties.

2.3 Business Context

[Provide background information about the report's importance, relevant business processes, and key stakeholders.]

- Required for every US state where motor fuel transactions occur.
- Filing frequency: Monthly, typically due by the 20th of the following month (varies by state).
- Stakeholders: Indirect Tax Analysts, Indirect Tax Manager, Regulatory Affairs.
- Source data must reconcile with ETRM trade, logistics, and invoicing modules.
- Late or inaccurate filings result in penalties, interest, or suspension of licenses.

3. Report Usage

Expected Number of Users:	8-12 tax analysts
User Teams/Departments:	Indirect Tax Team
Frequency of Use:	Monthly by 5th business day
Data Range:	Typically, run for one month of data at a time
Retention Period:	7 years required by legal policies. Current year plus 7 years in past.

4. Security

4.1 User Roles

The following user roles will have access:

- Indirect tax analyst
- Indirect tax manager
- Finance/accounting
- System administrator

4.2 Access Permissions

[Specify access requirements for the report and underlying data.]

Access Role	Access Level	Description / Rationale
Tax Analyst	View, Run, Export Reports	Primary report preparer; can view and validate data.
Tax Manager / Reviewer	Approve, Sign-Off, Submit	Reviews and certifies accuracy before filing.
Finance / Accounting	View Only	Can view summary metrics for reconciliations.
System Administrator	Configuration & Access Control	Manages permissions; cannot edit transactional data.

4.3 Data Sensitivity

[Highlight any sensitive data considerations.]

Data Type	Sensitivity Level	Handling Requirements
Transactional Data (volumes, prices)	Confidential	Restricted to internal finance/tax staff.
Jurisdictional Tax Rates	Internal	Managed centrally in tax rules engine.
Customer/Vendor Names	Personally Identifiable / Confidential	Masked or anonymized in shared testing environments.
Tax Amounts and Liability	Confidential / Financial Data	Encryption in storage and during transmission.
Filing Outputs (PDF/CSV)	Confidential	Stored in controlled document repository with retention policy.

5. Source Tables

5.1 Primary Source Tables

[List the tables and their purpose.]

Table	Purpose
Transaction	Represents the commercial agreement (buy/sell/transfer) that may trigger tax liability.
Movement	Represents physical product movement (shipment, transfer, delivery). Used for volume-based tax reporting.
Tax Calculations	Stores calculated tax results for reporting, audit, and reconciliation. One record per tax type per transaction/movement.
Tax Rule	Repository of configurable, jurisdiction-specific tax rules that drive tax calculation logic.
Product	Master data defining each taxable fuel or product type. Used to determine tax rates, exemptions, and reporting categories.
Counterparty	Represents customers, vendors, or intercompany entities. Used to determine exemption or registration-based tax rules.
Jurisdiction	Defines the tax jurisdictions used for rate and reporting assignment. Supports hierarchical rollups (e.g., State → Federal).
Transaction Type Text, Transportation Type Text, Product Group Text, Counterparty Type Text	Lookup text data

5.2 Join Logic

[Describe how the tables will be joined (e.g., primary and foreign keys).]

The leading table is the Transaction table.

It joins to the Tax_Calculations table to get tax calculations data.

The rest are master data lookups.

All data in Transaction table meeting filters/selections will display in report, even if there is no data in other tables.

The only data from other tables that will display is that data that joins to what is in the Transaction table.

5.3 High-Level Design Link

[Provide a link or reference to the High-Level Design document.]

N/A for this case study.

6. Filters & Restrictions

[Specify non-editable filters (e.g., region, date range).]

Tax Type = Motor_Fuel_Tax

7. Prompts

Below are the runtime prompts that users can select.

Field Name	Required (Optional or Mandatory)	Type (Single Value, Multiple Values, Range)	Default Value	Order
Month Year	Mandatory	Range	Last closed month	1
Country Code	Mandatory	Single Value	US	2
Jurisdiction Code	Optional	Multiple Values	All states	3
Product Group Name	Optional	Multiple Values	All	4
Output Format	Mandatory	Single Value: Excel, CSV, PDF	Excel	5

8. Default Layout

8.1 Field Order

[Define the order of fields in the report.]

Characteristics

Order	Field	Example
1	Month Year	04.2025
2	Country Code	US
3	Jurisdiction Code	US-TX
4	Product Group Name	Gasoline, Diesel, Biofuels
5	Transaction Type Name	Sale, Purchase, Transfer, Export
6	Bill of Lading	203212

Measures (and units)

[Specify measures and their aggregations, e.g., sum, average.]

Order	Field	Aggregation	Example or Notes
7	Taxable Quantity	Sum	1,000.00 (Can be negative)
8	Unit of Measure	N/A	GAL
9	Tax Rate (\$/gal)	Do not sum	0.090000
10	Tax Amount	Sum	\$90.00 (Can be negative)
11	Currency Unit	N/A	USD

8.2 Groupings, Sorting, Subtotals/Totals

- **Primary Grouping:** State → Product Group
- **Sorting:** Alphabetical by state, then product group
- **Subtotals:** By product group per state
- **Totals:** Grand totals across all states

8.3 Special Layout

[Detail any special layout requirements (e.g., coloring).]

N/A

8.4 Mockup

[Attach or reference a spreadsheet mockup of the report.]

State Motor Fuel Tax

Month Year	Country Code	Taxable Jurisdiction	Product Group Name	Transaction Type Name	Bill of Lading	Taxable Quantity	Unit of Measure	Tax Rate	Tax Amount	Currency Unit
04.2025	US	US-TX	Biofuels	Purchase	203214	1,000.00	GAL	0.090000	\$90.00	USD
04.2025	US	US-TX	Biofuels	Purchase	203217	1,000.00	GAL	0.090000	\$90.00	USD
04.2025	US	US-TX	Biofuels			2,000.00	GAL		\$180.00	USD
04.2025	US	US-TX	Diesel	Purchase	203216	1,000.00	GAL	0.090000	\$90.00	USD
04.2025	US	US-TX	Diesel	Purchase	203213	1,000.00	GAL	0.090000	\$90.00	USD
04.2025	US	US-TX	Diesel			2,000.00	GAL		\$180.00	USD
04.2025	US	US-TX	Gasoline	Sale	203215	-1,000.00	GAL	0.090000	-\$90.00	USD
04.2025	US	US-TX	Gasoline	Sale	203212	-1,000.00	GAL	0.090000	-\$90.00	USD
04.2025	US	US-TX	Gasoline			-2,000.00	GAL		-\$180.00	USD
04.2025	US	US-TX				2,000.00	GAL		\$180.00	USD

9. Jump/Link to Other Reports

[List reports this report links to, if any, and define the navigation logic.]

N/A

10. All Fields Source

Field List: [List all fields included in the report.]

Source Logic: [Provide the logic for each field, including source tables and any applied transformations.]

Characteristics

Field Name	Source Table	Source Table-Field or Logic	Example	Notes & History
Jurisdiction Code	Transaction	Jurisdiction_ID	US-TX	
Jurisdiction Name	Jurisdiction	Jurisdiction_Name	Texas	
Product Group ID	Product	Product_Group_ID	G03	
Product Group Name	Product Group Text	Product_Group_Name	Gasoline	
Product ID	Transaction	Product_ID	2011	
Product Name	Product	Product_Name	Regular Gasoline E10	
Counterparty ID	Transaction	Counterparty_ID	1001	
Counterparty Name	Counterparty	Counterparty_Name	Energy Distributors LLC	
Counterparty Type ID	Counterparty	Counterparty_Type_ID	C, V	12-Oct-2025 Field added.
Counterparty Type Name	Counterparty Type Text	Counterparty_Type_Name	Customer, Vendor	
Transaction Type Code	Transaction	Transaction_Type_Code	101, 601, 301	
Transaction Type Name	Transaction Type Text	Transaction_Type_Name	Purchase, Sale, Transfer	
Transportation Type Code	Movement	Transp_Type_Code	01, 02, 03, 04	
Transportation Type Name	Transportation Type Text	Transp_Type_Name	Ocean, Rail, Road, Air	
Bill of Lading	Movement	Movement_ID	203212	Movement_ID is the Bill of Lading.
Ticket	Transaction	Transaction_ID	20019511	
Country Code	Jurisdiction	Country_Code	US	
Month Year	Transaction	Use month and year from Transaction_Date	09.2025	
Unit of Measure	Tax Calculations	Unit_of_Measure	GAL	
Currency Unit	Tax Calculations	Currency_Unit	USD	
Tax Type	Tax Rule	Tax_Type	Motor_Fuel_Tax	This report is only for tax type = Motor_Fuel_Tax

Measures

Field Name	Source Table	Source Table-Field or Logic	Example	Notes & History
Taxable Quantity	Tax Calculations	Taxable_Quantity	2,000,000.10	
Tax Rate (\$/gal)	Tax Calculations	Tax_Rate	0.080001	
Tax Amount	Tax Calculations	Tax_Amount	\$160,002.01	

11. Assumptions and Dependencies

11.1 Assumptions

[Note assumptions about report requirements or usage.]

#	Assumption	Impact if Not True
A1	All source data (transaction, movement, product, jurisdiction, tax rules) is validated and available by month-end.	Report accuracy may be compromised.
A2	Tax rates are current in the Vertex O Series system.	Incorrect tax amounts in output.
A3	Each movement/transaction record includes both origin and destination jurisdictions.	Tax jurisdiction mapping may fail.
A4	All required master data (products, customers, facilities) is synchronized before report run.	Data mismatches between ETRM and Tax Engine.
A5	No system downtime during report generation window.	Delayed submission or incomplete reports.

11.2 Dependencies

[List dependencies (e.g., data availability, system integration).]

Type	Dependency / Constraint	Description / Impact
System	ETRM (Trade, Logistics, Invoicing modules)	Primary data source for transactions and movements.
System	Vertex O Series	Source of tax rules, rates, and jurisdiction mapping.
Process	Monthly Closing Schedule	Report must run after all transactions are finalized.
Operational	User Access Setup	Tax users must have access to run reports.
Performance	Report Execution Time	Must complete within 2 hours for 90% coverage.
Compliance	Filing Calendar	Dependent on each jurisdiction's due dates.

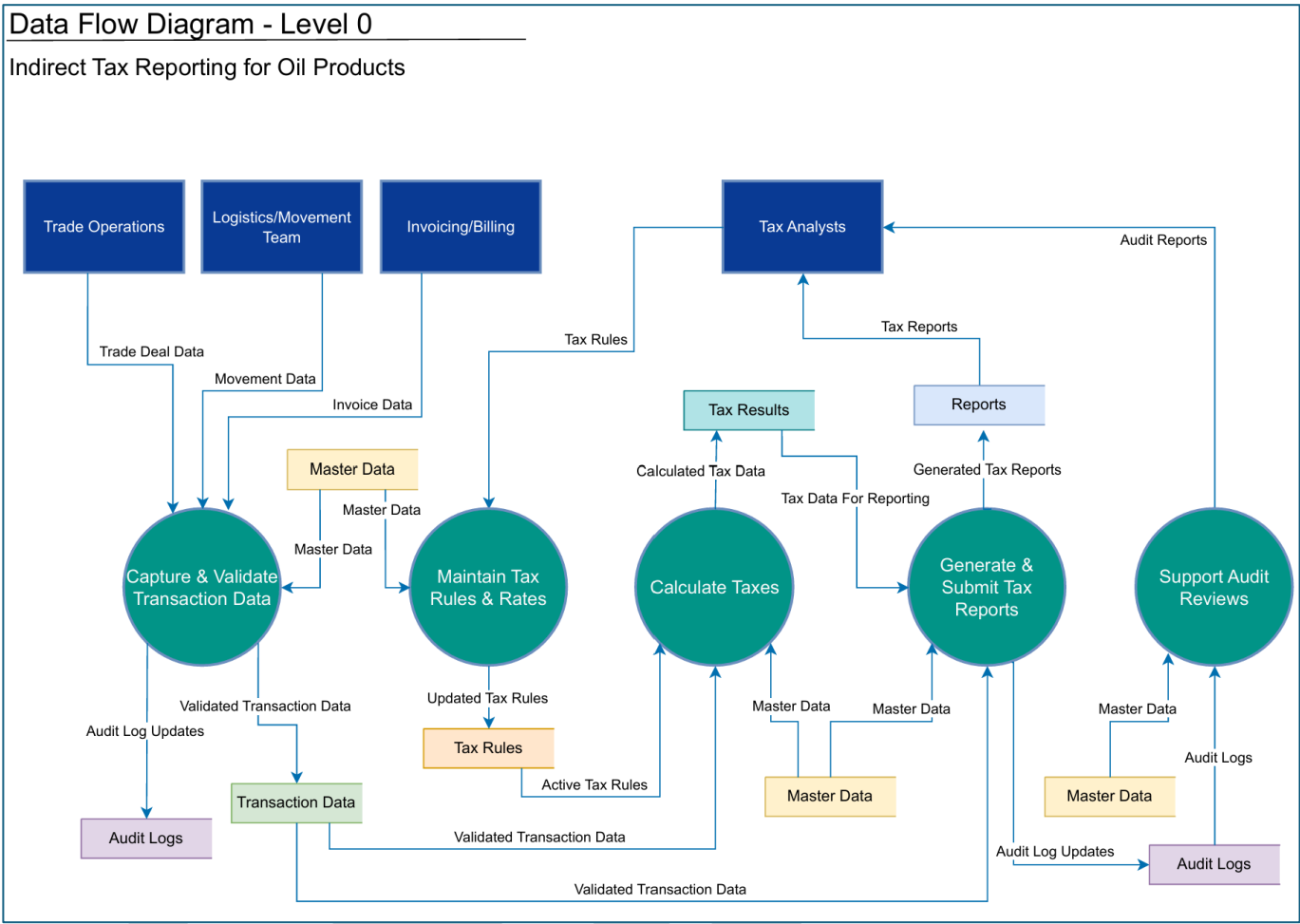
12. Testing Scenarios

These are high level test scenarios to note some key items to be tested. These will be later detailed out further for the actual test cases.

Test ID	Scenario Description	Key Fields / Inputs	Expected Result
TS-01: Report Layout Validation	Verify that all required columns, headers, and totals display correctly according to approved layout.	Use sample dataset for TX, Month Year = 07.2025.	Layout matches approved mockup — correct labels, alignment, grouping, and summary totals.
TS-02: Report Prompts Validation	Ensure all user prompts function correctly and default values work as expected.	Prompts: Month, Year, Jurisdiction Code (default = current month, US-TX).	Prompts load properly, defaults populate, and users can override as needed.
TS-03: Sorting and Grouping Check	Verify sorting and grouping logic per specification (by Product, then Transaction Type).	Dataset with multiple products and transaction types.	Records sorted and subtotaled correctly by Product and Type.
TS-04: Export Functionality	Confirm report exports correctly in all formats (PDF, Excel, CSV).	Run report and export each format.	Data, layout, and totals consistent across formats; no truncation or errors.
TS-05: Jurisdiction Filter Accuracy	Validate that report filters only transactions relevant to the selected jurisdiction.	Month Year = 07.2025; Jurisdiction = US-TX.	Only records where Origin or Destination Jurisdiction = TX are included.
TS-06: Tax Calculation Verification	Confirm tax amounts match tax rule logic.	Sample data with known tax rates.	Calculated tax equals expected values; rounding consistent with business rules.
TS-07: Transaction Type Handling	Verify correct inclusion/exclusion logic for Sale, Purchase, Transfer In/Out.	Dataset with all transaction types.	Sales and Purchases display correctly; interjurisdictional transfers handled per rule.
TS-08: Data Completeness and Validation	Check that mandatory fields (Product, Jurisdiction, Quantity) are populated and valid.	Dataset with missing or invalid values.	Invalid records excluded or flagged with error.
TS-09: Transaction Updates (Quantity Change)	Verify that changes to transaction quantity are reflected in report totals.	Modify transaction quantity in source system.	Updated quantity automatically recalculates tax and appears correctly in next report run.
TS-10: Tax Rate Change	Validate that a change to tax rate reflects correctly in report calculations.	Update tax rate in Tax Rules table.	New rate applied to transactions with effective date >= rate change date.
TS-11: Canceled Transaction Handling	Ensure canceled transactions are excluded or clearly marked in report.	Cancel one transaction record post-processing.	Canceled record excluded or flagged with "Canceled" status; totals adjusted.
TS-12: Performance and Execution Time	Validate that report runs efficiently for large data sets.	Month dataset (>100k records).	Report completes within 2 hours for 90% of runs; no timeout.
TS-13: Access and Security	Verify report access based on user role.	User roles: Tax Analyst, Manager, Viewer.	Each role restricted appropriately; execution logged.
TS-14: Data Sensitivity Check	Ensure no sensitive vendor data is displayed.	Sample data set.	Sensitive data masked or excluded.
TS-15: Audit Logging	Confirm each report run is logged with user, date/time, and output type.	Run report under multiple users.	Audit trail records execution details accurately.

13. Appendices

13.1 Data Flow Diagram



13.2 Sample Data

TRANSACTION

Transaction_ID	Transaction_Type	Transaction_Date	Jurisdiction_Code	Product_ID	Counterparty_ID	Quantity	UOM
20019511	601	1/3/2025	US-TX	P001	CUST01	12,500.00	GAL
20019512	101	1/4/2025	US-TX	P002	VEND01	7,800.00	GAL
20019513	301	1/6/2025	US-TX	P001	INT001	3,200.00	GAL
20019514	101	1/8/2025	US-LA	P003	VEND02	20,000.00	GAL
20019515	601	1/10/2025	US-TX	P002	CUST02	15,000.00	GAL

TRANSACTION TYPE TEXT

Transaction_Type_Code	Transaction_Type_Name
601	Sale
101	Purchase
301	Transfer

TAX CALCULATIONS

Tax_Calc_ID	Transaction_ID	Tax_Rule_ID	Calculation_Date	Taxable_Quantity	Unit_of_Measure	Tax_Rate	Tax_Amount	Currency_Unit
TXC0001	20019511	AB102030	10/9/2025	10,000.00	GAL	0.200000	2,000.00	USD
TXC0002	20019512	AB102031	10/9/2025	5,000.00	GAL	0.190000	950.00	USD
TXC0003	20019513	AB102032	10/9/2025	25,000.00	GAL	0.050000	1,250.00	USD
TXC0004	20019514	AB102033	10/9/2025	12,500.00	GAL	0.200000	2,500.00	USD

TAX RULE

Tax_Rule_ID	Jurisdiction_Code	Product_ID	Tax_Type	Start_Date	End_Date	Tax_Rate
AB102030	US-TX	2011	Motor_Fuel_Tax	1/1/2024	12/31/9999	0.200000
AB102031	US-TX	2013	Sales_Tax	1/1/2024	12/31/9999	0.082500
AB102032	US-LA	2044	Excise_Tax	3/1/2024	12/31/9999	0.180000
AB102033	US-TX	2011	Motor_Fuel_Tax	2/1/2024	12/31/9999	0.010000
AB102034	US-TX	2013	Sales_Tax	1/1/2024	12/31/2024	0.210000

JURISDICTION

Jurisdiction_Code	Jurisdiction_Name	Jurisdiction_Type	Country_Code	Start_Date	End_Date
US-FED	United States Federal	FED	US	1/1/2000	12/31/9999
US-TX	Texas	STATE	US	1/1/2000	12/31/9999
US-LA	Louisiana	STATE	US	1/1/2000	12/31/9999
US-TX-HARRIS	Harris County	COUNTY	US	1/1/2010	12/31/9999
US-TX-HOUSTON	Houston	CITY	US	1/1/2010	12/31/9999
US-OK	Oklahoma	STATE	US	1/1/2000	12/31/9999

PRODUCT

ProductID	ProductName	ProductGroup_ID
2011	Regular Gasoline E10	G03
2013	Premium Gasoline	G03
2044	Undyed Diesel	D04
2045	Dyed Diesel	D04
2202	Biodiesel B20	B01
2525	Jet Fuel (Commercial)	J11
2711	Propane Motor Fuel	L08

PRODUCT GROUP TEXT

ProductGroup	Language	ProductGroup
G03	EN	Gasoline
D04	EN	Diesel
B01	EN	Biofuel
J11	EN	Jet Fuel
L08	EN	LPG

MOVEMENT

Movement_ID	Transaction_ID	Transp_Type_Code
203212	30001010	01
203213	30001011	02
203214	30001012	03
203215	30001013	01
203216	30001014	02

TRANSPORTATION TYPE TEXT

Transp_Type_Code	Transp_Type_Name
00	Not defined
01	Ocean
02	Rail
03	Road
04	Air

COUNTERPARTY

Counterparty_ID	Counterparty_Name	Counterparty_Type	Jurisdiction_Code
1001	Energy Distributors LLC	C	US-TX
1002	Gulf Coast Fuel Supply	V	US-LA
1005	Pacific Petro Importers	C	US-CA

COUNTERPARTY TYPE TEXT

Counterparty_Type	Counterparty_Type_Name
C	Customer
V	Vendor

13.3 Data Dictionary

Entity	Field Name	Key Field	Data Type	Length	Format	Description	Example Values
Counterparty	Counterparty ID	PK	integer	4		Unique identifier of the counterparty.	1001
Counterparty	Counterparty Name		varchar	30		Legal name of the customer, supplier, or partner.	Energy Distributors LLC
Counterparty	Counterparty Type ID		char	1		Unique code for counterparty classification.	C, V
Counterparty	Jurisdiction Code	FK	varchar	10		Jurisdiction where the counterparty is registered for tax purposes.	US-TX
Counterparty Type Text	Counterparty Type ID	PK	char	1		Unique code for counterparty classification.	C, V
Counterparty Type Text	Counterparty Type Name		varchar	15		Classification of counterparty.	Customer, Vendor
Jurisdiction	Country Code		char	2		ISO country code for jurisdiction.	US
Jurisdiction	End Date		date	10	MM/DD/YYYY	Date when jurisdiction became inactive.	1/20/2025
Jurisdiction	Jurisdiction Code	PK	varchar	10		Unique identifier of the jurisdiction. A jurisdiction can be federal, state, county, city, etc.	US-TX
Jurisdiction	Jurisdiction Name		varchar	30		Full name of the jurisdiction.	Texas, California, Harris County
Jurisdiction	Jurisdiction Type		varchar	10		Indicates level of jurisdiction (e.g., Federal, State, County, City).	FED, STATE, COUNTY, CITY
Jurisdiction	Start Date		date	10	MM/DD/YYYY	Date when jurisdiction became active for tax purposes.	1/20/2025
Movement	Movement Date		date	10	MM/DD/YYYY	Date the movement occurred.	1/20/2025
Movement	Movement ID (Bill of Lading)	PK	integer	10		Unique identifier for each physical movement or transfer. Represents a physical movement of product - such as a shipment, receipt, or transfer. Unique per shipment or transfer. Each movement references a single transaction as its commercial basis (optional for internal transfers).	203212
Movement	Transaction ID	FK	integer	10		Links movement to a commercial or financial transaction.	20019511
Movement	Transportation Type Code	FK	integer	2		Code referring to the physical method of transport.	00, 01, 02, 03, 04
Product	Product Group ID	FK	char	3		Unique identifier for each product group.	G03, D04
Product	Product ID	PK	integer	4		Unique identifier for each product.	2011, 2013
Product	Product Name		varchar	30		Full commercial or tax reporting product name.	Regular Gasoline E10, Premium Gasoline, Undyed Diesel
Product Group Text	Language	PK	char	2		Language to see the text/name in.	EN

Entity	Field Name	Key Field	Data Type	Length	Format	Description	Example Values
Product Group Text	Product Group ID	PK	char	3		Unique identifier for each product group.	G03, D04
Product Group Text	Product Group Name		varchar	20		Broad tax classification used for reporting and rule mapping.	Gasoline, Diesel, Biofuel
Tax Calculations	Calculation Date		date	10	MM/DD/YYYY	Date the calculation was made.	1/20/2025
Tax Calculations	Currency Unit		char	3		Currency of the tax amount.	USD
Tax Calculations	Jurisdiction Code	FK	varchar	10		The jurisdiction that the calculated tax pertains to.	US-TX
Tax Calculations	Product ID	FK	integer	4		Unique identifier of the product.	2011, 2013
Tax Calculations	Tax Amount		decimal	15,2	2,000,000.10	The resulting calculated tax value.	2,000,000.10
Tax Calculations	Tax Calc ID	PK	varchar	20		Unique identifier for each tax calculation record.	TXC0001
Tax Calculations	Tax Rate (%)		decimal	9,6	0.120001	Rate applied for the tax (e.g., 0.2000 for 20¢ per gallon).	0.120001
Tax Calculations	Tax Rule ID	FK	varchar	10		References the tax rule applied during calculation.	AB102030
Tax Calculations	Taxable Quantity		decimal	18,2	2,000,000.10	The volume on which the tax is calculated	2,000,000.10
Tax Calculations	Transaction ID	FK	integer	10		References the originating transaction.	20019511
Tax Calculations	Unit of Measure		char	3		Unit of measure (e.g., Gallon, Barrel).	GAL
Tax Rule	End Date		date	10	MM/DD/YYYY	Date the tax rule is no longer effective.	1/20/2025
Tax Rule	Jurisdiction Code	FK	varchar	10		Each rule must be tied to the jurisdiction it applies to. This link ensures that when transactions are validated, the system can pick the correct rule based on jurisdiction. Here, the jurisdiction code determines which tax rules are applied.	US-TX
Tax Rule	Product ID	FK	integer	4		Unique identifier of the product.	2011, 2013
Tax Rule	Start Date		date	10	MM/DD/YYYY	Date the tax rule is effective.	1/20/2025
Tax Rule	Tax Rate (%)		decimal	9,6	0.090001	Tax rate percentage.	0.090001
Tax Rule	Tax Rule ID	PK	varchar	10		Unique identifier for each tax rule.	AB102030
Tax Rule	Tax Type		varchar	20		Defines the type of tax when creating or maintaining rules (e.g., Motor Fuel Tax).	Motor_Fuel_Tax, Sales_Tax, Environmental_Fee, Excise_Tax, Use_Tax
Transaction	Counterparty ID	FK	integer	4		Customer or vendor involved in the transaction.	1001
Transaction	Jurisdiction Code	FK	varchar	10		Tax jurisdiction governing the transaction.	US-TX
Transaction	Product ID	FK	integer	4		Product involved in the transaction.	2011, 2013
Transaction	Quantity		decimal	18,2	2,000,000.10	Quantity of the product in the transaction.	2,000,000.10
Transaction	Transaction Date		date	10	MM/DD/YYYY	Date of the transaction.	1/20/2025
Transaction	Transaction ID (Ticket)	PK	integer	10		Unique identifier of the transaction. Represents a commercial event or deal - such as a trade, sale, or purchase. Unique per trade/deal. A single transaction can link to multiple movements (e.g., partial deliveries).	20019511

Entity	Field Name	Key Field	Data Type	Length	Format	Description	Example Values
Transaction	Transaction Type Code	FK	integer	3		Code referring to what kind of business transaction occurred.	101, 601, 301
Transaction	Unit of Measure		char	3		Unit of measure for the quantity.	GAL
Transaction Type Text	Transaction Type Code	PK	integer	3		Code referring to what kind of business transaction occurred.	101, 601, 301
Transaction Type Text	Transaction Type Name		varchar	15		Defines what kind of business transaction occurred.	Sale, Purchase, Transfer, Export
Transportation Type Text	Transportation Type Code	PK	integer	2		Code referring to the physical method of transport.	00, 01, 02, 03, 04
Transportation Type Text	Transportation Type Name		varchar	20		The physical method of transport.	Not defined, Ocean, Rail, Road, Air