

Business Requirements Document

Indirect Tax Reporting for Oil Products – Release 1

**Disclaimer: This BRD 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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1. Document History

1.1 Revision History

Version	Date	Author	Revision Description
1.0	29-Jul-2025	S. F.	Initial draft
1.1	31-Jul-2025	S. F.	Cleanup overall formatting.
1.2	17-Sep-2025	S. F.	Updated project summary and scope from final Business Case document.
1.3	18-Sep-2025	S. F.	Updated Stakeholder Analysis & Success Criteria. Added newly created Use Case Diagram and Gap Analysis. Updated requirements based upon feedback from project sponsor review.
1.4	20-Sep-2025	S. F.	Updated with references to the Business Case.

1.2 Document Approval

Name	Role	Approve or Review	Date
First Last	Indirect Tax Team Manager	Approve	21-Sep-2025
First Last	Project Sponsor	Approve	21-Sep-2025
First Last	IT / ETRM System Owner	Approve	21-Sep-2025

1.3 Distribution

Name	Role	Date
First Last	Project Sponsor	20-Sep-2025
First Last	Indirect Tax Team Manager	20-Sep-2025
First Last	Tax Analyst SME	20-Sep-2025
First Last	Trade Operations SME	20-Sep-2025
First Last	Logistics Team SME	20-Sep-2025
First Last	Regulatory Affairs	20-Sep-2025
First Last	Tax Process Architect	20-Sep-2025
First Last	IT / ETRM System Owner	20-Sep-2025

2. Project Overview

2.1 Project Summary

Our company, a large-scale player in the oil & gas products trading sector, seeks to enhance its **indirect tax reporting** capabilities within the existing ETRM system to support compliance with jurisdiction-specific regulations governing the movement of refined oil products.

The current indirect tax reporting process within our ETRM system is manual, fragmented, and increasingly unsustainable. Tax analysts rely on spreadsheets and workarounds to extract and reconcile data across multiple modules. This method is prone to errors, slow to adapt to regulatory change, and difficult to scale.

To address this, we propose implementing an external, low-code tax rules engine integrated with our ETRM platform. This solution enables real-time validation, automates monthly tax reporting, improves audit readiness, and empowers tax analysts to manage rule updates without IT dependency.

With 90% automation, 50% fewer errors, and 100% traceability, the project is expected to deliver \$1.5M–\$1.9M in net savings over 3 years, while reducing compliance risk and positioning us for scalable, global tax operations.

2.2 Gap Analysis

The purpose of this Gap Analysis is to assess the differences between the existing ETRM system's capabilities, and the business requirements outlined in this document. By identifying these gaps, we aim to ensure that the future system aligns with business objectives and delivers the expected value.

ID	Current State: AS-IS	Future State: TO-BE	Gap Description	Factors Responsible for Gap	Solutions
G1	Manual extraction and spreadsheet-based tax calculations	Automated tax calculations through integrated external rules engine	Tax analysts spend significant time compiling and reconciling data manually	Lack of automated calculation tools; reliance on SMEs and spreadsheets	Implement external low-code tax rules engine to automate calculations and reporting
G2	No real-time validation ; errors caught late in reporting cycle	Real-time validation of trade, logistics, and invoice data at point of entry	Inaccuracies and delays in error detection increase compliance risk	ETRM not designed for tax logic; no validation checkpoints	Integrate rules engine to validate transactions at key events
G3	Inconsistent master data mapping across ETRM modules	Standardized and validated master data mappings enforced by rules engine	Misaligned product codes, jurisdictions, and counterparties create reporting inconsistencies	ETRM modules siloed; no centralized governance of tax data elements	Centralize master data mapping and embed validation in tax engine
G4	Rule updates managed by SMEs, dependent on IT for changes	Configurable rules engine allows tax analysts to update without coding	Delays in applying jurisdiction-specific tax updates; scalability issues	Regulatory volatility; lack of flexible tax logic tools	Deploy configurable, jurisdiction-aware rules engine enabling rapid updates
G5	Limited transparency ; audit logs are manual and incomplete	Automated audit-ready logs with timestamps, inputs, outputs, and overrides	Audit and compliance processes are time-consuming and error-prone	Manual documentation; lack of system traceability	Generate automated logs in tax engine to satisfy audit/compliance needs
G6	Reliance on institutional knowledge ; limited scalability for growth	Automated, standardized processes reduce reliance on SMEs	Current manual approach does not scale to new markets or increased volume	Dependence on SME expertise; fragmented workflows	Automate workflows , embed tax rules in engine, and reduce SME dependency

See the following Business Case sections for more details:

- Section 3 – Problem Statement
- Section 5 – Current State Analysis
- Section 6 – Proposed Solution

2.3 Project Objectives

1. Automatically extract and consolidate **90% of tax-relevant data** into centralized reports, reducing manual prep time from 2 days to under 2 hours per month within 3 months.
2. Enforce **100% validation rules** for tax-relevant fields at time of trade or shipment entry, targeting a **50% reduction** in rework due to data issues within 3 months.
3. Align **100% of master data** used in tax logic across trade and logistics modules, with a quarterly governance review process in place within 3 months.
4. Implement a rules engine allowing tax analysts to update **80% of logic without IT**, cutting change turnaround time from 2 weeks to 2 days, within 2 months.
5. Ensure that **100% of tax rule changes and override actions** are logged with user-level traceability and available for export on demand, within 2 months.

2.4 Success Criteria

The following metrics will be used to measure success:

KPI / Metric	Description	Target / Goal
Manual Effort Reduction	Measures the decrease in time spent manually compiling and reconciling tax reports	<input type="button" value="⬇"/> Reduce from 16 hours/month to <2 hours/month (90% reduction)
Automation Coverage Rate	Percentage of monthly tax reports generated automatically	<input checked="" type="checkbox"/> 90%+ of reports auto-generated using ETRM data
Error Rate in Tax Reports	Frequency of inaccuracies found in tax submissions or audit findings	<input type="button" value="⬇"/> Decrease errors by 50%
Validation Rule Enforcement Rate	Share of transactions that pass real-time tax validation checks at point of entry	<input checked="" type="checkbox"/> 100% of tax-relevant transactions validated
Master Data Alignment Accuracy	Percentage of aligned and governed master data used across tax logic (e.g., product codes, regions)	<input checked="" type="checkbox"/> 100% alignment with quarterly governance reviews
Audit Traceability Coverage	Proportion of tax calculations, overrides, and logic changes logged with audit trail	<input checked="" type="checkbox"/> 100% traceability with timestamp and user-level detail
Turnaround Time for Tax Logic Changes	Time required to update jurisdiction-specific tax logic	<input type="button" value="⬇"/> Reduced from 2 weeks to 2 days
IT Dependency Rate for Rule Changes	Share of tax logic updates made by business users without IT support	<input checked="" type="checkbox"/> 80% of changes completed by tax analysts
Compliance Incidents / Penalties	Number of audit findings, late filings, or penalties related to indirect tax	<input type="button" value="⬇"/> Zero compliance issues post-implementation
User Adoption and Satisfaction (Tax Team)	Qualitative and quantitative feedback on usability and value of new tools	<input checked="" type="checkbox"/> ★ 85%+ satisfaction in post-implementation survey

3. Project Scope

3.1 In Scope

The following items are in scope of Release 1:

- **Tax Rule Engine:** Configurable rule engine; exemption handling; volume/value thresholds.
- **Monthly Tax Reports:** Automated jurisdiction-specific tax report generation.
- **Real-Time Validation:** Real-time checks across trade, movement, invoicing data.
- **Audit-Ready Logging:** Role-based audit trails and override logging.
- **Master Data Mapping:** Validation of core tax master data inputs.

3.2 Out of Scope

The following items are NOT in scope of Release 1:

- **Direct Filing or Submission to Tax Authorities:** This project focuses on internal tax report generation, not on electronic filing or integration with government portals.
- **Full Global Rollout to All Jurisdictions:** Release 1 will focus on one jurisdiction for a controlled pilot. Global expansion may be scoped in future phases.
- **Changes to Core Trade, Logistics, or Invoicing Workflows:** We will read and validate data from these modules but not redesign or alter their business processes.
- **Migration of Historical Tax Data:** Only current and future transactions will be handled. Historical data cleanup or migration is deferred.
- **Exception Handling Workflow:** Approval routing for overrides or flagged records.
- **Rule Simulation Tools:** Strategic forecasting or tax modeling capabilities.

4. Key Project Factors

See Business Case Section 10 for risks, assumptions, constraints, and issues.

4.1 Dependencies

Below is a list of factors that the project depends on.

ID	Dependency Description	Impact if Delayed	Management Strategy
D01	Approved jurisdictional tax rules and exemptions	Delay in configuring tax engine and finalizing logic	Early coordination with Legal/Regulatory teams and set sign-off milestones
D02	ETRM modules populated with trade, movement, and invoicing data	Incomplete tax calculations and reporting output	Data readiness checkpoints in project plan; assign ownership per module
D03	API/data pipeline capacity and ETRM integration readiness	Integration failures or rework; reporting gaps	Confirm integration design early; escalate gaps to IT/vendor; include build vs. buy analysis
D04	Master data governance (product codes, jurisdiction tags)	Inaccurate tax reporting and validation failures	Joint governance sessions with data owners; run integrity checks before go-live
D05	Stakeholder availability for rule mapping and UAT	Missed logic nuances and delayed user validation	Lock in stakeholder schedules early; use time-boxed workshops and async reviews
D06	Field mapping and extract capabilities across ETRM modules	System limitations in applying rules or generating reports	Field mapping exercise; involve ETRM support to validate extracts and custom logic
D07	Reporting framework compatibility with tax engine outputs and audit logs	Manual effort to visualize KPIs or audit trails	Confirm BI/reporting tools and integrations early; validate mockups during design phase
D08	Environment readiness (UAT sandbox, test data)	Blocked validation, testing, and training cycles	Schedule UAT prep milestones; define fallback test cycles with alternate data sets
D09	Tax Process Architect + IT Integration Lead assigned	Lack of ownership for rule logic and integration governance	Confirm roles/responsibilities in project charter; maintain joint decision log
D10	Training materials and delivery for analysts	Low adoption and incorrect usage of new validation features	Develop content in parallel; pilot sessions and feedback loops prior to go-live
D11	Audit protocol definition (logs, override handling)	Non-compliant audit trail and risk during reviews	Draft audit requirements early; align override justification and logging procedures
D12	Feedback loop setup for post-rollout refinement	No channel to fix validation or reporting gaps after launch	Create ongoing enhancement backlog; schedule post-deployment check-ins
D13	Vendor/platform support for external tax engine	Delays in configuration, defect resolution, or scaling tax logic	Establish vendor SLA, support contacts, and escalation paths before design phase

5. Stakeholder Analysis

The Stakeholder Register identifies key stakeholders, their roles, and their interest in the project.

Stakeholder	Role / Interest	Influence	Interest	Communication Strategy
Tax Lead	Owns tax reporting outcomes; wants automation, accuracy, auditability, and compliance	1-High	1-High	Weekly status updates, participate in UAT, input on rule engine, report format validation
Project Sponsor	Provides funding and strategic direction; ensures alignment to company goals	1-High	1-High	Executive briefings at initiation, go/no-go gates, and final outcome review
Tax Process Architect	Designs future-state tax process; focuses on scalability, governance, and cross-system alignment; ensures tax rules are applied consistently and accurately across modules	1-High	1-High	Key design workshops, owns the tax operating model, validates solution architecture
IT / ETRM System Owner	Ensures integration into trade, movement, and invoicing systems; owns technical feasibility	1-High	2-Medium	Bi-weekly working sessions, technical design reviews, risk mitigation planning
Tax Analysts (End Users)	Use system for filings; interested in reduced manual workload and clarity of rule logic; need accurate, timely reports	2-Medium	1-High	Pilot testing, hands-on feedback sessions, training pre-implementation
Regulatory Affairs	Oversees financial compliance and regulatory integrity of tax reporting	2-Medium	1-High	Monthly executive summaries, milestone-based decision reviews
Trade Operations SME	Provides insight into trade capture logic and transaction workflows impacting tax treatment / Data Source Owners	2-Medium	2-Medium	Requirement workshops, validation of trade data handling rules
Logistics Team SME	Ensures accuracy of volume/movement data tied to product delivery and tax liability	2-Medium	2-Medium	Requirement workshops, testing validation rules related to shipments and quantities
Invoicing SME	Ensures invoicing workflows align with tax reporting needs; validates data accuracy for invoice-related tax rules	2-Medium	2-Medium	Requirement workshops, invoice data validation sessions, feedback during UAT
Audit & Compliance Team	Ensures traceability and transparency for audit readiness	2-Medium	2-Medium	Monthly review checkpoints, access to audit logs and sample reporting

See Business Case Section 9 for Stakeholder Map and RACI Matrix.

6. Business Requirements

6.1 Functional Requirements

The list below describes the high-level functional requirements for Release 1.

Req#	Category	Requirement	Description
FR-01.01	Tax Rule Management	Configurable Engine	The solution must provide a configurable, jurisdiction-aware tax rules engine.
FR-01.02		Analyst Rule Updates	The solution must allow tax analysts (not IT) to update tax rules without code changes.
FR-02.01	Automated Tax Calculation	Auto Tax Calc	The solution must automatically calculate indirect taxes across trade, movement, and invoicing modules using jurisdiction-specific rules.
FR-03.01	Real-Time Data Validation	Real-Time Validation	The solution must validate trade, logistics, and invoicing data in real time.
FR-03.02		Compliance Checks	The solution must enforce jurisdiction-specific compliance at the point of entry.
FR-04.01	Reporting Automation & Insights	Auto Tax Reports	The solution must automate generation of monthly indirect tax reports.
FR-04.02		Compliance Dashboard	The solution must provide dashboards that track compliance KPIs and audit readiness.
FR-05.01	Auditability & Compliance	Audit Log	The solution must create a complete, traceable audit log of tax calculations, rule changes, and overrides.
FR-05.02		Log Review Access	The solution must allow tax analysts to easily review and audit logs of regulatory and internal audit purposes.
FR-06.01	Data Integration & Quality	ETRM Integration	The solution must integrate with existing ETRM modules to ensure consistent tax data across systems.
FR-06.02		Master Data Check	The solution must standardize and validate master data (e.g., product codes, tax regions, counterparties) to prevent reporting discrepancies.

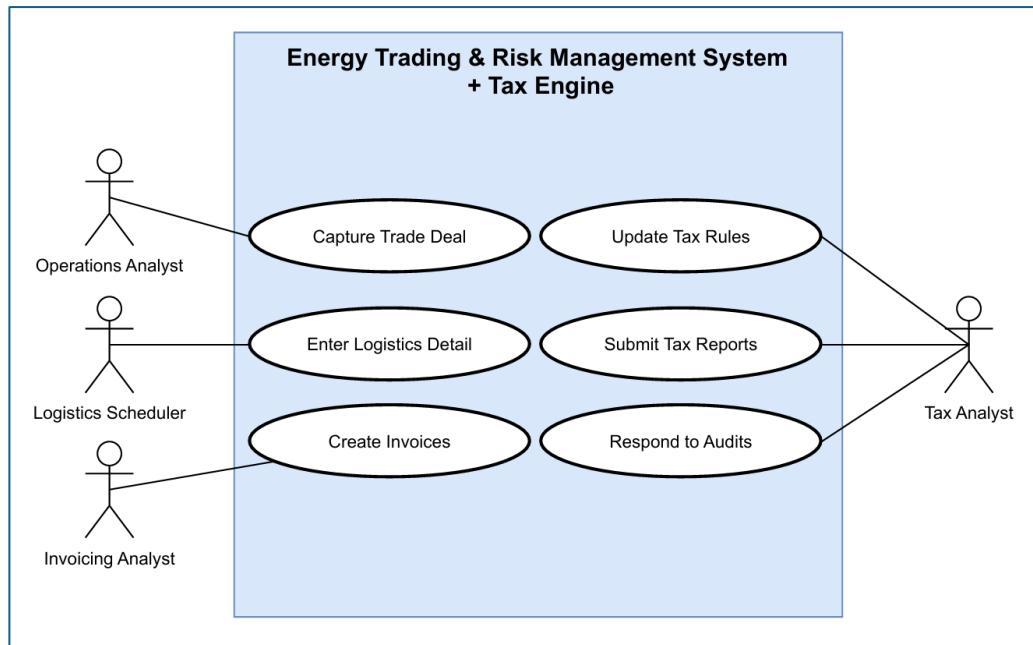
6.2 Non-Functional Requirements

The list below describes system attributes such as performance, security, scalability, usability, and reliability. These requirements ensure the system meets operational and user expectations.

Req#	Category	Requirement	Description
NFR-01.01	Performance & Reliability	Real-Time Validation	The solution must support near real-time validation of transactions.
NFR-01.02		High Availability	The solution must maintain high availability during peak trading and reporting periods.
NFR-01.03		Fast Report Process	The solution must process automated monthly tax reports (90% coverage) in < 2 hours.
NFR-02.01	Scalability	Scalable Growth	The solution must scale to support new markets, products, and jurisdictions as business grows.
NFR-03.01	Usability	User-Friendly Rules	The solution must allow configuration of tax rules through user-friendly interfaces.
NFR-04.01	Compliance & Security	Role-Based Access	The solution must enforce role-based access to ensure only authorized users can configure or override rules.
NFR-04.02		Audit Log Retention	The solution must store audit logs for a minimum of 7 years to meet regulatory requirements.
NFR-05.01	Maintainability & Support	Low IT Dependency	The solution must allow updates to tax logic with minimal IT involvement.
NFR-05.02		Vendor Support	The solution must be supported by vendors or internal teams to handle patches, upgrades and regulatory updates.

6.3 Use Case Diagram

This high-level Use Case Diagram shows the big picture of how actors interact with the system.



7. Appendices

7.1 Gap Analysis to Objectives Mapping

To ensure all problems are addressed.

ID	Current State: AS-IS	Future State: TO-BE	Solutions	Objective
G1	Manual extraction and spreadsheet-based tax calculations	Automated tax calculations through integrated external rules engine	Implement external low-code tax rules engine to automate calculations and reporting	Obj 1
G2	No real-time validation; errors caught late in reporting cycle	Real-time validation of trade, logistics, and invoice data at point of entry	Integrate rules engine to validate transactions at key events	Obj 2
G3	Inconsistent master data mapping across ETRM modules	Standardized and validated master data mappings enforced by rules engine	Centralize master data mapping and embed validation in tax engine	Obj 3
G4	Rule updates managed by SMEs, dependent on IT for changes	Configurable rules engine allows tax analysts to update without coding	Deploy configurable, jurisdiction-aware rules engine enabling rapid updates	Obj 4
G5	Limited transparency: audit logs are manual and incomplete	Automated audit-ready logs with timestamps, inputs, outputs, and overrides	Generate automated logs in tax engine to satisfy audit/compliance needs	Obj 5
G6	Reliance on institutional knowledge; limited scalability for growth	Automated, standardized processes reduce reliance on SMEs	Automate workflows, embed tax rules in engine, and reduce SME dependency	All

7.2 Objectives to Requirements Mapping

To ensure all requirements are tied back to objectives and nothing is missed.

ID	Objective Description	Functional Requirements	Non-Functional Requirements
Obj 1	Automatically extract and consolidate 90% of tax-relevant data into centralized reports, reducing manual prep time from 2 days to under 2 hours/month within 3 months.	FR-02.01 (Auto Tax Calc) FR-04.01 (Auto Tax Reports) FR-04.02 (Compliance Dashboard)	NFR-01.02 (High Availability) NFR-01.03 (Fast Report Process)
Obj 2	Enforce 100% validation rules for tax-relevant fields at time of trade or shipment entry, targeting a 50% reduction in rework within 3 months.	FR-02.01 (Auto Tax Calc) FR-03.01 (Real-Time Validation) FR-03.02 (Compliance Checks)	NFR-01.01 (Real-Time Validation) NFR-01.02 (High Availability)
Obj 3	Align 100% of master data used in tax logic across trade and logistics modules, with quarterly governance review in place within 3 months.	FR-06.01 (ETRM Integration) FR-06.02 (Master Data Check)	NFR-02.01 (Scalable Growth) NFR-05.02 (Vendor Support)
Obj 4	Implement a rules engine allowing tax analysts to update 80% of logic without IT, cutting turnaround time from 2 weeks to 2 days within 2 months.	FR-01.01 (Configurable Engine) FR-01.02 (Analyst Rule Updates)	NFR-02.01 (Scalable Growth) NFR-03.01 (User-Friendly Rules) NFR-05.01 (Low IT Dependency)
Obj 5	Ensure 100% of tax rule changes and override actions are logged with user-level traceability and available for export on demand within 2 months.	FR-05.01 (Audit Log) FR-05.02 (Log Review Access)	NFR-04.01 (Role-Based Access) NFR-04.02 (Audit Log Retention)

7.3 Diagram Reference

Diagram	Reference
Current State Process Flow	Business Case Section 5.1
Current State Context Model	Business Case Section 5.2
High Level Solution	Business Case Section 6.2
Future State Process Flow	Business Case Section 6.3
Future State Context Model	Business Case Section 6.4

7.4 Glossary

Term	Definition
Audit Trail	A detailed, time-stamped log of all tax calculations, overrides, rule changes, and user actions. Ensures transparency and compliance during audits.
Audit-Ready Logging	Capability of the system to generate, store, and export records required for internal or external audits.
Business Rule Engine (Tax Rule Engine)	A configurable logic layer (external to ETRM) that applies jurisdiction-specific tax rules, validates data, and outputs reporting-ready results.
Compliance Report	A jurisdiction-specific tax filing or internal summary generated from validated transaction data.
ETRM (Energy Trading and Risk Management System)	System used to manage trade capture, logistics, invoicing, and risk management for energy and refined oil products.
Exemption Handling	Tax rule logic that accounts for cases where certain transactions, products, or jurisdictions are not subject to a given tax.
Jurisdiction Code	A system identifier representing the specific region or authority governing tax rules (e.g., state, province, country).
Low-Code/No-Code	Technology enabling users to configure business rules or workflows with minimal IT or programming support.
Master Data	Core data elements (e.g., product codes, counterparties, tax regions) standardized across modules to ensure consistency in reporting.
Real-Time Validation	Automated checks on tax-relevant data (volume, pricing, tax fields) at the point of transaction entry to prevent errors from propagating.
Reportable Movement	A physical transfer of refined oil products that triggers indirect tax reporting obligations.
Tax Analyst (SME)	End user responsible for managing tax logic, reviewing outputs, and ensuring compliance with jurisdictional rules.
Tax Calculation Logic	Rule-based application of indirect taxes (e.g., excise, environmental fees) across transactions.
Traceability Matrix	A tool that maps requirements to corresponding design elements, test cases, and deliverables to ensure full coverage.
UAT (User Acceptance Testing)	Testing phase in which business users validate system outputs, workflows, and usability against requirements.
Value-Based Tax	Tax applied as a percentage of transaction value (e.g., excise tax).
Volume-Based Tax	Tax applied based on the quantity of product moved (e.g., environmental fee).