# MARKET RESEARCH BRIEF: FUEL SUPPLY AND DELIVERY TO ERBIL, IRAQ

REQUEST FOR PROPOSAL (RFP): SPE605-25-R-0216

#### PREPARED BY:

• Researchnomics.com

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#### **DESCRIPTION:**

• An analysis of the fuel market in Erbil, Kurdistan Region of Iraq (KRG), focusing on gasoline (MUM) and diesel (SFD) supply, market prices, logistics, and security considerations.

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#### 1. EXECUTIVE SUMMARY

This Market Research Brief provides an analysis of the fuel market in Erbil, Kurdistan Region of Iraq (KRG), to support the U.S. Defense Logistics Agency (DLA) Energy proposal SPE605-25-R-0216 for the daily supply of Gasoline Mid-Grade Unleaded (MUM) and Diesel SFD (10ppm sulfur). The research covers current market prices as of May-June 2025, fuel availability, local supply chain dynamics, transportation and logistics conditions, storage facility options, and security considerations.

Prevailing market conditions indicate that international crude oil prices, a key driver for refined product costs, stabilized in the \$60-\$65 per barrel range for Brent crude in May 2025.<sup>1</sup> However, the preceding 12 months were marked by significant volatility, underscoring the need for robust price management strategies.<sup>3</sup> Locally, fuel prices in Iraq are subject to government administration, with recent increases in premium and super gasoline grades in federal Iraq effective May 1, 2025.<sup>5</sup> Prices in the KRG have historically been higher but can be influenced by agreements with Baghdad regarding fuel flows from central and southern Iraq.<sup>6</sup> The USD/IQD exchange rate has demonstrated notable stability at approximately 1,310-1,313 IQD per USD, simplifying USD-based costing.<sup>7</sup>

Fuel availability in Erbil is primarily reliant on local refineries, notably the Bazian Refinery (Qaiwan Group/WZA Petroleum) and KAR Group's refineries in the Erbil vicinity (Kawergosk/Kalak). Bazian has undergone expansions with a stated aim to produce RON 95 gasoline, which would likely meet DLA's MUM AKI requirements.<sup>9</sup> KAR Group operates significant refining capacity near Erbil.<sup>10</sup> However, consistent local production of DLA-specified Gasoline MUM and Diesel SFD (10ppm sulfur) requires verification. The operational and financial stability of these refineries can be impacted by the ongoing political and economic relationship between the KRG and the federal government in Baghdad, particularly the unresolved issues surrounding the Iraq-Turkey Pipeline (ITP) shutdown since March 2023.<sup>12</sup>

Logistical challenges include potential checkpoint delays, as evidenced by disruptions in northern Iraq.<sup>5</sup> Detailed local market rates for compliant fuel transportation (TTWP), leased tankers with pumps and meters, and secure storage facilities meeting DLA and environmental standards are not readily available in public sources and will necessitate primary, in-country research. Security remains a key consideration, with processes for vehicle and personnel clearances requiring careful navigation and potentially significant lead times and costs. Key competitive factors will include the ability to secure compliant fuel at stable prices, establish resilient local supply chains amidst political uncertainties, and manage logistics efficiently and securely. The proposal must address potential risks such as price volatility, fuel specification non-compliance from local sources, supply disruptions, and logistical bottlenecks. A thorough understanding of the KRG operational environment and a demonstrable commitment to full DLA compliance are paramount for a competitive and sustainable offer.

#### 2. CURRENT MARKET PRICES (ERBIL/KRG, MAY – JUNE 2025)

This section details the prevailing market prices for gasoline and diesel in Iraq, with a specific focus on the Erbil/KRG region, for the period of May-June 2025. It examines wholesale and retail prices, relevant international benchmarks, currency conversion impacts, and historical price trends to assess stability and volatility.

#### 2.1. Wholesale and Retail Prices for Gasoline MUM and Diesel SFD (10ppm)

As of May 1, 2025, the Iraqi Council of Ministers implemented price increases for certain grades of gasoline in federal Iraq. The price for one liter of premium petrol was raised from 650 Iraqi Dinar (IQD) to 850 IQD, and super petrol increased from 1,000 IQD to 1,250 IQD. Regular petrol, often avoided due to perceived poor quality that may damage vehicle engines, especially in summer, remained priced at 450 IQD per liter.<sup>5</sup> These federally administered prices provide a baseline; however, fuel prices in the KRG have historically exhibited different characteristics.

Data from September 2024 indicated that fuel prices in the KRG ranged between 850 IQD and 1,360 IQD per liter, compared to 650 IQD to 1,250 IQD per liter in other Iraqi governorates, with variations depending on the specific type of gasoline (regular, premium, or super).<sup>6</sup> This suggests that KRG prices can be higher, potentially due to different subsidy levels, import costs, or local market dynamics. A significant policy development was the KRG's decision to permit the flow of fuel from central and southern Iraq into the Kurdistan Region. This move was anticipated to reduce gasoline prices in the KRG by approximately 50 to 100 IQD per liter.<sup>6</sup> The actual impact of this policy on May-June 2025 prices in Erbil needs careful assessment to determine its sustainability and effect on the DLA's required fuel grades (Gasoline MUM and Diesel SFD).

While not directly Gasoline MUM or Diesel SFD, pricing for other fuel types provides context. For instance, the government-regulated price for an 11kg cylinder of household gas (LPG) in Erbil was 8,500 IQD (approximately \$5.67 USD) as of March 2025. However, commercial gas prices for bulk purchases experienced significant fluctuations and sharp increases, indicating volatility in related energy markets within the region.<sup>14</sup>

For DLA proposal purposes, prices must be converted to USD per gallon. Using an exchange rate of approximately 1,310 IQD per USD (see section 2.3) and 3.785 liters per gallon:

- Super Petrol (Federal Iraq): 1,250 IQD/liter  $\approx$  \$0.954 USD/liter  $\approx$  \$3.61 USD/gallon.
- Premium Petrol (Federal Iraq): 850 IQD/liter ≈ \$0.649 USD/liter ≈ \$2.46 USD/gallon.

The DLA requires specific grades: Gasoline MUM (Mid-Grade Unleaded) and Diesel SFD (10ppm sulfur). It is crucial to determine which, if any, of the locally defined "premium" or "super" gasoline grades align with the DLA's MUM specification (typically an Anti-Knock Index - AKI - of 87 or similar). "Regular" gasoline at 450 IQD/liter is likely too low-grade. Diesel SFD pricing will depend on the availability of 10ppm sulfur content diesel from local refineries or the cost of importing compliant fuel.

### 2.2. Reference Spot Prices (Platts, Argus, Local Fuel Price Bulletins)

International crude oil prices are a fundamental determinant of refined product costs. During April-May 2025, Brent crude, a key international benchmark, exhibited some volatility. In April 2025, Brent was trading below \$65 per barrel.<sup>1</sup> By early May 2025, WTI Crude stood at \$58.29 per barrel and Brent Crude at \$61.29 per barrel (as of May 4, 2025).<sup>1</sup> Goldman Sachs revised its forecast, expecting Brent crude to average \$60 per barrel for the remainder of 2025.<sup>15</sup> Historical Brent price data for May 2025 showed fluctuations, with a low of \$58.50 on May 5 and a high of \$64.27 on May 9; by May 12, 2025, Brent was \$65.33 per barrel.<sup>2</sup> This general range of \$60-\$65 per barrel for Brent provides a baseline for estimating refinery feedstock costs.

For refined products, RBOB Gasoline (a U.S. benchmark) was priced at \$2.14 USD per gallon on May 12, 2025.<sup>2</sup> While not directly reflecting Erbil prices, it offers an indication of general gasoline market trends. A more localized refined product benchmark is the price of JP54 (a type of jet fuel) in Iraq, which was reported at \$86.4 USD per barrel on May 1, 2025. This translates to approximately \$0.547 USD per liter or \$2.07 USD per gallon.<sup>16</sup> Although jet fuel pricing dynamics differ from those of road fuels like Gasoline MUM and Diesel SFD, this data point provides a concrete example of refined product pricing within Iraq.

It is important to note that the Kurdistan region's crude oil market has complexities. Argus assessments indicate that Kurdish crude output, shut out from international export pipelines, has been smuggled into Iran and Turkey at "hefty discounts" to market prices.<sup>13</sup> This suggests the potential existence of a local, informal market that may not always align with official international benchmarks. However, DLA contracts necessitate legitimately sourced fuel, adhering to all legal and compliance frameworks. Direct Platts or Argus quotations for Gasoline MUM or Diesel SFD specifically for Erbil are typically premium data services and were not available in the provided information. Access to local fuel price bulletins from the KRG Ministry of Natural Resources or Ministry of Trade would be invaluable but were not explicitly found for these specific products.<sup>6</sup>

# 2.3. Currency Conversion Trends (USD/IQD) Affecting Import and Delivery Costs

The stability of the USD/IQD exchange rate is critical for accurate and predictable pricing in USD, as required by DLA contracts. As of early May 11, 2025, the exchange rate remained largely unchanged, with 1 USD equaling approximately 1313.7391 IQD.<sup>7</sup> Concurrently, currency converter Wise.com reported 1 USD = 1,310.00000 IQD, a rate that had remained stable over the preceding week (May 5-12, 2025) and for the previous six months.<sup>8</sup> This stability is a positive indicator for costing.

The Central Bank of Iraq (CBI) has been working to maintain this stability. While older analyses from March 2021 had indicated potential for future USD/IQD appreciation, near-term forecasts at that time pointed to minor declines.<sup>7</sup> The recent data for May 2025 clearly shows that a stable exchange rate has been largely achieved and maintained. This current stability around 1,310 to 1,313 IQD per USD significantly simplifies the process of converting local currency costs to USD for the proposal and reduces short-term currency fluctuation risk. Any significant future devaluation of the IQD would increase the USD cost of locally sourced fuel and services if their prices are denominated or sticky in IQD. Conversely, an appreciation of the IQD would lower USD costs. For the May-June 2025 timeframe, the prevailing stability is a favorable condition for financial planning.

# 2.4. Historical Pricing Trends (Last 12 Months) to Estimate Price Stability or Volatility

The 12 months leading up to May-June 2025 have been characterized by notable volatility in global oil markets, directly impacting potential fuel costs in Iraq. Global oil prices trended downward in May 2025, influenced by factors such as increased production output from OPEC+ member countries and the potential for a nuclear deal between Iran and the United States.<sup>3</sup> Earlier, on April 8, 2025, Brent crude experienced a sharp drop to a four-year low of \$63.20 per barrel, driven by global trade fears and OPEC+ production decisions.<sup>4</sup>

Iraq's federal budget for 2023 was predicated on an assumed crude oil price of \$70 per barrel; however, actual market prices fluctuated significantly, generally between \$60 and \$80 per barrel during that period.<sup>19</sup> Compounding fiscal pressures, the International Monetary Fund (IMF) noted that Iraq requires crude oil prices to be above \$92 per barrel to avoid deficit spending, a stark contrast to market realities where prices often hovered around \$60 per barrel.<sup>20</sup> Further illustrating this trend, Aramco reported selling its crude at an average price of \$76.30 per barrel in the first quarter of 2025, a decrease from \$83 per barrel in the first quarter of 2024.<sup>21</sup>

Locally, administered price changes also contribute to the pricing landscape. As mentioned, federal Iraq increased premium and super petrol prices effective May 1, 2025.<sup>5</sup> In the KRG, fuel prices were reportedly set to fall in September 2024 following a new KRG policy to allow fuel imports from central and southern Iraq.<sup>6</sup> This indicates that regional prices are not solely market-driven but are also subject to intergovernmental policy decisions. Historical data for JP54 jet fuel prices in Iraq for the 30 days leading up to May 2023 (note: 2023 data) showed considerable volatility, with prices per gallon fluctuating from \$2.79 in late March 2023 down to \$2.15 by early May 2023, illustrating the potential for rapid price swings in refined products within the country.<sup>16</sup>

This historical volatility, influenced by a confluence of OPEC+ policies, geopolitical events, global economic sentiment, and internal Iraqi/KRG policy adjustments, suggests that while Brent crude prices appeared to stabilize in the \$60-\$65 per barrel range in May 2025 <sup>1</sup>, the potential for future price swings remains a significant risk. This underscores the critical need for incorporating robust price escalation and de-escalation clauses within the DLA contract, tied to reliable and transparent benchmarks. The interplay between federal and KRG pricing policies adds another layer of complexity, suggesting that local market prices can be influenced by political agreements as much as by pure market forces. This introduces a non-market risk factor that must be considered in any long-term supply strategy.

#### Table 1: Estimated Fuel Prices in Erbil, KRG (May-June 2025)

Fuel Type Estimated Fuel Type Price (IQD/liter)	Estimated Wholesale Price (USD/gallon)	Basis/Source/Assumption
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Gasoline MUM	850 - 1,300 (est.)	950 - 1,400 (est.)	\$2.46 - \$3.76 (est.)	\$2.75 - \$4.05 (est.)	Based on Federal "Premium" 5 & KRG higher range.6 Assumes MUM aligns with "Premium" or slightly higher. USD/IQD 1,310. Requires spec confirmation.
Diesel SFD (10ppm)	800 - 1,200 (est.)	900 - 1,300 (est.)	\$2.31 - \$3.47 (est.)	\$2.60 - \$3.76 (est.)	General estimate based on gasoline ranges & international diesel/gasoline spreads. Requires local 10ppm availability & price confirmation. USD/IQD 1,310.

Note: These are broad estimates. Actual wholesale/retail prices for DLA-specific MUM and SFD in Erbil require direct verification. The KRG market may have different structures than federal Iraq.

#### 3. FUEL AVAILABILITY & LOCAL SUPPLY CHAIN (ERBIL/KRG)

This section assesses the availability of Gasoline MUM and Diesel SFD in the Erbil/KRG region, focusing on key local refineries, potential supply chain disruptions, the capacity of suppliers to meet DLA's quality specifications, and identification of potential fuel suppliers.

#### 3.1. Key Local Refineries and Terminals Supplying Erbil

The KRG has actively developed its refining sector to meet domestic demand, reducing reliance on product imports or allocations from federal Iraq. Key facilities include:

- **Bazian Refinery:** Located in the Sulaymaniyah Governorate and operated by Qaiwan Group (previously referenced with WZA Petroleum), this refinery is a significant contributor to the KRG's fuel supply. Current stated capacity is around 45,000 barrels per day (bpd).<sup>22</sup> Older KRG Ministry of Natural Resources (MNR) information indicated a capacity of 34,000 bpd with plans for expansion to 80,000 bpd by 2014.<sup>10</sup> More detailed expansion plans by WZA Petroleum aimed to increase Bazian's total capacity to 84,000 bpd. This expansion reportedly included a new 50,000 bpd Crude Distillation Unit (CDU) and, critically for DLA requirements, units designed to produce premium gasoline with a Research Octane Number (RON) of 95.<sup>9</sup> The refinery's product slate includes diesel, naphtha, and kerosene.<sup>22</sup> The full commissioning status of the 84,000 bpd expansion and the RON 95 gasoline unit is vital for assessing MUM supply capability.
- KAR Group Refineries (Erbil Governorate): KAR Group is a major energy player in the KRG and operates significant refining assets in proximity to Erbil.
  - The Kalak Refinery (often referred to as Erbil Refinery), near Erbil city, was cited by the KRG MNR with a capacity of 80,000 bpd, with planned expansion to 100,000 bpd by 2014 (note the date of this information).<sup>10</sup>
  - Another source describes KAR Group's Erbil Refinery with a capacity of 30,000 bpd, producing gasoline, diesel, and jet fuel for the local market.<sup>23</sup>
  - The **Kawergosk Refinery (also referred to as Kawigosk)**, also operated by KAR Group and located near Erbil, is reported to be the largest in Kurdistan with a capacity of 136,000 bpd.<sup>24</sup> This facility sustained damage from rocket attacks in May 2022 <sup>24</sup>; its current full operational status post-repairs is a key factor for regional supply. The discrepancies in stated capacities for "Erbil

Refinery" (30,000 bpd vs. 80,000 bpd) may refer to different operational units or phases within the same Kalak/Kawergosk complex, or reflect information from different time periods. Given their location, KAR Group's facilities are geographically crucial for supplying Erbil.

• Other Facilities: Norwegian company DNO operated a 5,000 bpd topping plant at the Tawke field in Duhok Governorate, primarily to prepare crude oil to meet export specifications.<sup>9</sup> This facility is unlikely to be a primary source of finished Gasoline MUM or Diesel SFD for the local Erbil market.

While specific public storage and distribution terminals, distinct from refineryintegrated storage, are not extensively detailed, their existence is implied by the functioning fuel market in the KRG. These would be operated by refineries themselves or by downstream distribution companies.

### 3.2. Recent Disruptions, Bottlenecks, or Political/Economic Risks Affecting Supply

The fuel supply chain in the KRG is subject to several risks and potential disruptions:

- Iraq-Turkey Pipeline (ITP) Shutdown: The most significant ongoing disruption is the suspension of KRG crude oil exports (estimated at around 450,000 bpd) via the ITP since March 2023. This halt followed an International Chamber of Commerce (ICC) arbitration ruling that Turkey could not transport KRG oil without Baghdad's consent.<sup>12</sup> The financial impact has been severe, with Iraq reportedly losing over \$20 billion in potential revenue <sup>12</sup>, and the KRG facing considerable financial strain, affecting its ability to pay International Oil Companies (IOCs) and meet other obligations.<sup>19</sup> As of May 2025, the pipeline itself was reported to be technically functional, but its restart awaited federal authorization from Baghdad.<sup>12</sup> A restart could also complicate Iraq's adherence to its OPEC+ production quotas.<sup>12</sup> While primarily impacting crude exports, the financial pressure on the KRG and IOCs from the ITP closure could indirectly affect feedstock availability for local refineries or delay investments in refinery maintenance and upgrades.
- **Baghdad-Erbil Disputes:** Persistent disagreements between the federal government and the KRG over oil revenue sharing, budget allocations, and constitutional interpretations of resource management create an unstable operating environment.<sup>19</sup> The submission of Iraq's 2025 budget was delayed due to these disputes, particularly concerning the recognized cost for KRG oil

production, which was reportedly increased from an initial \$10 per barrel to \$16 per barrel.<sup>4</sup> These ongoing tensions affect the KRG's fiscal stability and its relationships with IOCs, which are vital for local production.

- OPEC+ Production Quotas: Iraq has faced challenges in complying with its OPEC+ production quotas, partly attributing this to disagreements with the KRG over regional production levels.<sup>13</sup> To improve compliance, Baghdad has had to reduce crude exports and limit crude intake at domestic refineries in federal Iraq. This, in turn, has led to an increased need for gasoil imports to fuel power generation.<sup>13</sup> Such restrictions could increase the KRG's importance for incountry refined product supply if its refineries are not subject to the same direct federal limitations. Conversely, it could strain KRG's resources if Baghdad expects commensurate reductions from the region.
- Security Incidents: The KRG, while generally more stable than other parts of Iraq, is not immune to security threats. The Kawergosk refinery (KAR Group) was damaged by rocket attacks in May 2022.<sup>24</sup> Although historical, this event highlights the latent security risks to critical energy infrastructure in the region.
- Economic Conditions and Smuggling: Broader economic challenges, including Iraq's heavy dependence on oil revenues and potential budget deficits, affect both federal Iraq and the KRG.<sup>19</sup> The KRG, in particular, has faced difficulties in meeting its financial obligations, including salary payments.<sup>19</sup> Furthermore, reports indicate that considerable volumes of Kurdish crude oil are smuggled into neighboring Iran and Turkey at significant discounts to market prices.<sup>13</sup> This informal market operates outside official channels and could impact local supply dynamics if legitimate supply chains are constrained or if it diverts crude that could otherwise be refined locally.

# 3.3. Capacity and Output of Major Local Suppliers that Meet EN 590 and AKI Compliance

Ensuring that locally produced fuels meet DLA's stringent specifications is a critical aspect of the supply plan.

• EN 590 (Diesel – 10ppm sulfur / SFD): The EN 590 standard, particularly for 10ppm sulfur content (Ultra Low Sulfur Diesel - ULSD), is recognized in international markets, and there are active buy requirements from Iraqi entities and for international deliveries that list Iraq as a potential origin.<sup>26</sup> This indicates market awareness and an understanding of the specification. However, explicit confirmation that the Bazian and KAR Group refineries consistently produce and supply EN 590 10ppm diesel (SFD) to the local Erbil market is not definitively stated in the available information. While the Bazian refinery is noted to produce "diesel" <sup>22</sup>, the specific sulfur content is not detailed. Given that the DLA contract will mandate this specification, rigorous verification of local production capability for 10ppm diesel is paramount. If not consistently available from local refineries, SFD would need to be imported, which would increase costs and logistical complexity.

AKI Compliance (Gasoline MUM): The DLA's Gasoline MUM typically requires a specific Anti-Knock Index (AKI), often 87 ( (RON+MON)/2 ). The Bazian refinery's expansion plans by WZA Petroleum included units specifically for producing premium gasoline with a RON of 95.9 A RON 95 gasoline generally corresponds to an AKI of around 90-91 (referencing standard conversion examples 28), which would likely meet or exceed the typical MUM AKI requirement. The key factor is the current, consistent availability of this RON 95 gasoline from Bazian in May-June 2025.

Research on gasoline samples from Tawke crude (potentially not representative of main refinery output for MUM grade) indicated lower RON values (around 72-73) and correspondingly lower AKI values (around 71).29 This highlights that not all gasoline produced or available in the KRG will automatically meet DLA MUM specifications. The specific gasoline grades and their AKI values produced by KAR Group's refineries are not detailed in the provided information.

# 3.4. Compliance of Regional Gasoline with RON/MON/AKI Standards Required by DLA

The primary challenge lies in matching the DLA's specific AKI requirement for Gasoline MUM with consistent local production. If Bazian's RON 95 output is reliably available, it presents a strong candidate for meeting the MUM specification.9 However, if this grade is not consistently available, or if KAR Group's refineries do not produce a suitable equivalent, then Gasoline MUM might need to be sourced via import or require specialized blending capabilities locally. Both alternatives would add to the cost and logistical complexity of the supply chain.

The KRG Ministry of Natural Resources (MNR) has previously approved commercial gasoline imports from other Iraqi Governorates, with the proviso that these imports adhere to government quality and safety regulations.6 This implies a mechanism for quality control is in place. However, the specific standards enforced under these regulations, and whether they align with DLA's precise RON/MON/AKI requirements, are not detailed. The reference table of fuel octane ratings 28 can be used to correlate RON and MON values to a target AKI if more specific component data becomes available from the refineries. The potential for a mismatch between DLA's specific fuel grade requirements and the

readily documented output from all KRG refineries is a significant consideration. This necessitates prioritizing confirmation of the exact specifications of fuel available from local refineries.

### 3.5. Potential Fuel Suppliers (At least three)

Identifying reliable suppliers capable of meeting DLA's requirements is crucial. Based on the available information, potential suppliers fall into these categories:

- 1. Qaiwan Group / WZA Petroleum (Bazian Refinery): A primary refining source, particularly if their RON 95 gasoline production is operational and consistent, and if they produce EN 590 10ppm diesel.<sup>9</sup>
- 2. **KAR Group (Kawergosk/Erbil Refineries):** As operators of the largest refining capacity in the KRG and facilities located in or near Erbil, they are a logical primary source. Verification of their product specifications against DLA requirements is essential.<sup>10</sup>
- 3. Established Local Fuel Distributors/Importers: While specific company names for downstream distribution suitable for DLA contracts are not prominent in the provided documents, a functioning fuel market implies their existence. The KRG's policy of allowing fuel imports from federal Iraq also suggests a role for such entities.<sup>6</sup> Companies listed in broader oil and gas directories for Kurdistan <sup>30</sup> are often focused on upstream activities (e.g., Dana Gas, Crescent Petroleum under Pearl Petroleum are primarily gas-focused <sup>30</sup>) or are large conglomerates. The proposal team will need to conduct further research to identify specific, DLA-compliant local distributors who source from these refineries or are capable of importing the required fuel grades.

The strategic focus on gas development in the KRG (e.g., projects by Dana Gas/Pearl Petroleum at Khor Mor and Chemchemal fields <sup>13</sup>) is a major regional priority. This focus on gas for power generation and potential export might mean that optimizing refined fuel output for niche, high-specification grades like those required by DLA is a secondary commercial consideration for refineries unless there is a strong, reliable offtake agreement.

Refinery Name	Operator	Location (Proximity to Erbil)	Stated Capacity (bpd) (approx.)	Key Relevant Products (Gasoline/Dies el)	Reported Gasoline Specs (RON/A KI if available)	Reported Diesel Specs (Sulfur ppm/Standa rd if available)	Notes on Expansion/Rece nt Issues
Bazian Refinery	Qaiwan Group / WZA Petroleu m	Sulaymaniy ah (supplies KRG)	45,000 - 84,000 (planned)	Gasoline, Diesel, Naphtha, Kerosene	Planned RON 95 9	"Diesel" - spec (ppm) TBD	Expansion to 84,000 bpd with upgraded gasoline units planned/ongoin g.9
Kawergosk/Kal ak (Erbil) Refinery	KAR Group	Erbil	30,000 - 136,000 (multiple units/report s)	Gasoline, Diesel, Jet Fuel	Specs TBD	Specs TBD	Kawergosk (136k bpd) damaged in 2022, current status TBD.24 Kalak capacity reports vary (30k vs 80k).10
Tawke Topping Plant	DNO	Duhok	5,000	Crude for export spec preparation	N/A for finished fuel	N/A for finished fuel	Primarily for crude processing, not finished product supply for local market.9

# Table 2: Profile of Key Refineries Supplying Erbil/KRG Region

TBD: To Be Determined through further primary research.

#### 4. TRANSPORTATION AND LOGISTICS MARKET CONDITIONS (ERBIL)

This section examines the market conditions for fuel transportation and logistics within Erbil, covering trucking rates, tanker availability, labor costs, and potential delivery restrictions. Significant data gaps exist in publicly available information for these specific cost components.



4.1. Market Rates for Fuel Truck Transportation (TTWP – Trucks, Trailers, Washouts, Pumps)

Specific market rates for fuel truck transportation (TTWP) within Erbil and the KRG are not detailed in the provided research materials. These rates are critical for developing an accurate cost proposal and are typically influenced by a multitude of local factors. These include, but are not limited to:

- **Distance of Haul:** From refinery/terminal to DLA delivery points.
- Road Conditions: Affecting transit times, wear and tear on vehicles.
- Truck Availability and Capacity: Supply and demand for suitable fuel tankers.
- Local Fuel Costs: For the transport trucks themselves.
- **Security Requirements:** Potential need for escorts, secure parking, or adherence to specific movement protocols, which add to operational costs.
- **Market Demand:** Overall demand for transportation services in the region. Obtaining reliable TTWP rates will require direct engagement with local transportation providers or consultation with specialized logistics cost databases for the region.

# 4.2. Availability and Cost of Leased Tankers with Pump and Meter

DLA contracts frequently stipulate specific standards for fuel delivery vehicles, including the presence of calibrated pumps and meters for accurate dispensing and inventory control, as well as various safety features. The availability of a sufficient fleet of leased tankers that meet these DLA standards within the Erbil market is not documented in the available information. Similarly, the associated leasing costs (daily, monthly, or per-trip rates) are unknown. This represents a critical data gap that needs to be addressed through primary, in-country research to ensure that compliant vehicles can be sourced cost-effectively.

### 4.3. Labor and Driver Cost Structures for Compliant Vehicle Operators

The costs associated with labor, particularly for vehicle drivers, form a significant portion of overall transportation expenses. This includes driver salaries, benefits (health, social security if applicable), insurance (vehicle and personnel), and any additional costs related to ensuring compliance with DLA or local regulations. Such compliance costs might involve specialized driver training (e.g., hazardous materials handling, defensive driving, security protocols) and costs for security vetting of personnel if mandated. No specific data on these labor and driver cost structures in Erbil is available from the provided sources.

# 4.4. Delivery Timing Restrictions due to Security Checkpoints or Local Regulations

The operational environment in northern Iraq, including the KRG, can be characterized by security checkpoints and varying local regulations that may impact delivery schedules. A notable example from May 2025, though not necessarily on direct Erbil fuel routes, involved thousands of trucks being stuck at the Mosul Dam checkpoint due to processing delays.5 This incident highlights the potential for significant bottlenecks and delays at checkpoints throughout the broader region.

Such delays can arise from bureaucratic procedures, security screening processes, or infrastructure limitations. Similar checkpoint delays, specific curfews, or movement restrictions applicable to Erbil or the primary routes leading to DLA delivery locations are highly probable. These restrictions can:

- Impact adherence to delivery schedules.
- Increase overall transit times.
- Lead to additional costs, such as demurrage charges for waiting vehicles, driver overtime, or the need for more vehicles to meet a given daily throughput. The logistics plan for the DLA proposal must incorporate buffer times for potential delays and explore strategies for mitigating their impact, such as alternative routing (if feasible) or pre-coordination with relevant checkpoint authorities where possible. Security conditions invariably lead to increased transportation costs that go beyond simple distance and fuel calculations, due to slower transit times and potentially higher operational costs (e.g., for security measures or compliance with restricted movement windows).

### 4.5. Potential Transportation Providers (at least three)

Specific names of fuel transportation companies operating in Erbil that are experienced and potentially compliant with DLA standards are not identified in the provided research. Identifying reputable providers is essential. This will require:

- 1. On-the-ground intelligence gathering.
- 2. Leveraging existing networks of DLA-approved contractors or international organizations operating in Erbil.
- 3. Inquiries with major fuel suppliers (refineries) who may have preferred hauler lists. Potential candidates could include established local logistics companies, firms with experience in transporting goods for other international entities, or specialized fuel transport operators. Due diligence will be required to assess their capacity, compliance record, safety standards, and financial stability.

Cost Component	Estimated Cost Range (USD)	Data Source/Assumption	Confidence Level
TTWP Rate (per km / per day / per liter)	TBD	Requires primary local market research	Low
Leased Compliant Tanker (pump & meter) Daily/Monthly Cost	TBD	Requires primary local market research	Low
Compliant Driver Daily/Monthly Salary & Benefits Range	TBD	Requires primary local market research	Low
Estimated Checkpoint Delay Impact (cost per hour/day)	TBD	Based on historical incidents 5 & security assessment	Low
Security Escort Costs (if required)	TBD	Dependent on DLA requirements & local provider rates	Low
Insurance (Vehicle, Cargo, Personnel)	TBD	Requires quotes from local/international insurers	Low

# Table 3: Estimated Fuel Transportation Cost Factors in Erbil

TBD: To Be Determined. This table highlights critical cost components requiring urgent primary data collection.

#### 5. STORAGE FACILITY LEASING AND FUEL HANDLING (ERBIL)

This section addresses the availability and cost of leasing suitable fuel storage facilities or accessing depots in Erbil, including considerations for security, equipment, and environmental compliance. There is a significant lack of detailed public information on these aspects.

# 5.1. Local Market Rate for Leasing Fuel Storage or Depot Access in Erbil

Specific local market rates for leasing dedicated fuel storage tanks or gaining access to existing fuel depots in the Erbil area are not provided in the available research materials. One document mentions "fuel depot" in the context of Erbil, but offers no actionable details on cost or availability.<sup>34</sup> Leasing costs would typically vary based on several factors:

- **Storage Capacity:** The volume of fuel to be stored (e.g., cubic meters or gallons).
- Lease Duration: Short-term versus long-term agreements.
- Facility Security: The level of physical security measures in place (fencing, guards, surveillance).
- **Equipment Standards:** Availability of calibrated metered pumps, appropriate tank types (e.g., underground), and product handling capabilities.
- Environmental Compliance: Adherence to spill prevention, containment, and waste management standards. This data is a critical unknown and will require direct inquiries with potential storage providers in Erbil.

# 5.2. Availability of Underground Tanks or Secured Depots with Metered Pumps

DLA contracts often have preferences or mandates for specific types of storage to enhance safety, security, and inventory management. These can include:

- **Secured Depots:** Facilities with controlled access, perimeter fencing, security personnel, and potentially surveillance systems.
- Underground Storage Tanks (USTs): Often preferred for safety (reduced fire risk) and security (less visible target).
- **Metered Pumps:** Calibrated and certified pumps are essential for accurate fuel dispensing and maintaining auditable inventory records. The availability of such facilities in Erbil with spare capacity for lease to a DLA contractor is not documented in the provided information. Identifying facilities that meet these DLA-typical requirements will be a key task for the proposal team.

# 5.3. Environmental Compliance and EPA Alignment of Storage Partners

While United States Environmental Protection Agency (EPA) standards are U.S.specific, DLA typically requires contractors to adhere to equivalent international best practices or stringent host-nation environmental regulations. This is particularly relevant for fuel storage and handling, focusing on:

- Spill prevention and control measures (e.g., secondary containment).
- Leak detection systems for tanks and pipelines.
- Proper management and disposal of fuel-related waste.
- Emergency response plans for spills or other environmental incidents. The general level of environmental compliance among potential storage partners in Erbil, and their alignment with EPA-comparable standards, is not detailed in the provided materials.<sup>34</sup> Due diligence will be necessary to assess the environmental practices of any considered storage provider. It is possible that achieving the required environmental standards might necessitate investment in facility upgrades or selecting premium providers who already meet international standards.

# 5.4. Potential Storage Providers (at least three)

Identifying specific, compliant storage providers requires primary investigation. Potential categories of providers include:

- Major Refineries (e.g., KAR Group, Qaiwan Group/Bazian): These entities operate significant storage capacity as part of their refining operations. Whether they offer third-party leasing of segregated, DLA-compliant storage with dedicated access is uncertain and would need to be explored.
- 2. Large Local Fuel Distributors: Companies involved in the wholesale or large-scale distribution of petroleum products within the KRG likely operate their own storage depots. Their willingness and capability to lease space under DLA terms would need assessment.
- 3. **Specialized Logistics Companies:** Firms that provide broader logistics support to international organizations, NGOs, or military operations in the KRG might own or have access to compliant storage facilities. These companies may also have a better understanding of DLA's operational and compliance expectations.

The absence of readily available, detailed information on compliant fuel storage facilities and their associated costs in Erbil suggests that this market segment is

highly specialized, with information not typically in the public domain. Finding suitable, compliant, and cost-effective storage will likely be a significant research undertaking and could be a notable cost driver and potential operational constraint.

#### 6. SECURITY CLEARANCE COSTS & LEAD TIMES (ERBIL)

This section outlines considerations related to security clearances for personnel and vehicles, the availability of compliant local security providers, and historical context for U.S. contractor clearance processes in Iraq. Specific cost and timeline data is highly sensitive and typically not publicly available.

# 6.1. Time and Cost Required for Obtaining Vehicle and Personnel Clearance

The time and cost associated with obtaining necessary security clearances for vehicles and personnel to operate under a DLA contract in Erbil are not specified in the provided research. These factors are highly dependent on:

- **Specific DLA and U.S. Government Requirements:** The level of clearance needed (e.g., access to specific sites, handling of sensitive information).
- Nationality of Personnel: Clearances for local nationals, third-country nationals, and U.S. expatriates involve different processes and timelines.
- Origin and Registration of Vehicles: Vehicles may require specific inspections, modifications, or registrations to operate in designated zones or for DLA purposes.
- **Current Security Posture:** Prevailing threat levels and the responsiveness of both U.S./Coalition and KRG authorities can influence processing times. This information is typically obtained through official DLA channels, from contracting officers, or via consultation with experienced government contracting firms that have recent operational experience in Iraq. Lead times can be substantial and must be factored into project mobilization schedules. Costs can include application fees, vetting expenses, and any required training or equipment.

# 6.2. Local Security Providers Offering GOVCON-Compliant Solutions for Erbil Delivery Zones

DLA contracts performed in environments like Iraq often necessitate or strongly recommend the use of vetted private security providers to ensure the safety of personnel, assets, and operations. Identifying local security firms in Erbil that are "GOVCON-compliant" (i.e., meet U.S. Government contracting standards) is crucial. Such compliance typically involves:

- Proper licensing and registration with KRG and/or Iraqi authorities.
- Thorough vetting and training of security personnel (often to standards recognized by international bodies or U.S. government).

- Experience in supporting international organizations or government contractors.
- An understanding of DLA's operational security (OPSEC) requirements, rules of engagement (if applicable), and reporting procedures.
- Adequate insurance and liability coverage. No specific GOVCON-compliant local security providers are named in the provided materials. This will require due diligence, potentially through recommendations from DLA, other U.S. government agencies, or established prime contractors.

# 6.3. Historical Data on U.S. Contractor Vehicle Clearance Processes in Iraq

Specific historical data detailing U.S. contractor vehicle clearance processes within Iraq, including the KRG, is not available in the research snippets. Such processes are subject to change based on evolving security agreements, threat assessments, and U.S. and host nation policies. Experienced DLA prime contractors, security consultants specializing in Iraq, or logistics providers with a long history of supporting U.S. government operations in the region would possess this institutional knowledge. The rocket attacks on energy infrastructure mentioned previously <sup>24</sup>, although historical, serve as a reminder of the ongoing need for robust security protocols and, by extension, thorough and potentially complex clearance procedures for any assets operating in support of U.S. government interests. The choice of local partners for transportation and storage will be significantly influenced by their existing security posture and their ability to facilitate or expedite the necessary clearance processes for their own personnel and equipment.

Security-related costs and lead times are likely to be substantial and are subject to variability based on the dynamic threat environment and specific DLA contractual requirements. The proposal must therefore include a well-justified budget allocation for all security aspects and incorporate sufficient time in the project schedule to accommodate all necessary clearance procedures.

#### 7. KEY CONSIDERATIONS & RECOMMENDATIONS FOR PROPOSAL TEAM

This analysis of the fuel market in Erbil, KRG, for May-June 2025 reveals several critical factors, risks, and data gaps that the proposal team must address to develop a competitive, sustainable, and fully compliant price offer for DLA Energy RFP No. SPE605-25-R-0216.

#### Summary of Key Risks and Considerations:

- Price Volatility and Structure:
  - Global crude oil prices, while showing some stability in May 2025<sup>1</sup>, have a history of volatility which directly impacts refined product costs.<sup>3</sup>
  - Local fuel prices in Iraq are subject to government administration and policy changes <sup>5</sup>, with KRG prices historically higher than federal Iraq but influenced by inter-governmental agreements on fuel supply.<sup>6</sup> This creates a complex pricing environment not solely driven by market forces.

#### • Fuel Specification Compliance and Availability:

- Ensuring a consistent and reliable supply of Gasoline MUM meeting DLA's AKI requirements and Diesel SFD (10ppm sulfur) is paramount. While local refineries like Bazian have plans for producing higher-grade gasoline (RON 95) <sup>9</sup>, and EN 590 10ppm is a known standard <sup>26</sup>, the current, consistent availability of these exact specifications from local production for the Erbil market needs rigorous verification. Some local gasoline samples have shown lower AKI values.<sup>29</sup>
- If DLA-specification fuels are not consistently produced locally, the sourcing strategy must account for importation or specialized blending, which would significantly impact cost and logistics.

#### • Supply Chain Integrity and Geopolitical Factors:

- The KRG fuel supply chain is intertwined with the complex political and economic relationship between the KRG and the federal government in Baghdad. Disputes over oil revenues, budget allocations, and the ongoing shutdown of the Iraq-Turkey Pipeline (ITP) since March 2023 create financial pressure and operational uncertainty for the KRG and its energy sector.<sup>12</sup>
- Security incidents, such as past attacks on refinery infrastructure <sup>24</sup>, remain a latent risk to supply continuity.
- Logistical Challenges and Data Gaps:
  - Significant data gaps exist regarding local market rates for compliant fuel truck transportation (TTWP), availability and cost of leased tankers with required pumps and meters, and costs for secure, compliant storage facilities

in Erbil. This information is not readily available publicly and requires primary, in-country research.

- Potential for delivery delays due to security checkpoints or other logistical bottlenecks is a known issue in northern Iraq <sup>5</sup> and must be factored into operational planning and costing.
- Security Clearances and Compliance:
  - Obtaining necessary security clearances for personnel and vehicles can involve substantial lead times and costs, which are highly dependent on specific DLA requirements and the prevailing security environment.
  - Identifying and partnering with local security, transportation, and storage providers who are compliant with U.S. Government contracting standards (GOVCON) is essential.

### Recommendations for the Proposal Team:

- Price Risk Management: Propose robust price escalation and de-escalation mechanisms in the contract. These should be tied to clear, transparent, and mutually agreeable international benchmarks (e.g., Platts Mean of Platts Arab Gulf - MOPAG - for relevant refined products, or Brent crude plus an agreed refining margin/differential).
- 2. Fuel Sourcing and Specification Verification:
  - Prioritize immediate engagement with key local refineries (KAR Group in Erbil, Qaiwan Group/Bazian Refinery) to verify their current production capabilities for DLA-specified Gasoline MUM (target AKI) and Diesel SFD (10ppm sulfur). Secure Letters of Intent or provisional offtake agreements if possible.
  - Develop comprehensive contingency plans for sourcing compliant fuel via import if local production is found to be insufficient, non-compliant, or unreliable. This should include identifying potential import routes, suppliers, and associated costs.
  - c. Incorporate a rigorous fuel quality testing regime at various points in the supply chain (e.g., refinery gate, storage receipt, delivery) to ensure consistent compliance.
- 3. **Due Diligence on Local Partners:** Conduct thorough due diligence on all potential local subcontractors and partners (fuel suppliers, transportation providers, storage facility operators). This assessment should cover their operational capacity, financial stability, compliance record (including

environmental and safety standards), security posture, and critically, any prior experience with DLA or other international government contracts.

## 4. Logistics Planning and Costing:

- a. Allocate resources for urgent, on-the-ground primary research to obtain accurate local market data for TTWP rates, compliant tanker lease costs, driver wages, and storage facility lease rates in Erbil.
- b. Develop realistic delivery timelines that incorporate buffer periods for potential checkpoint delays and other known logistical hurdles. Explore options for dedicated logistics channels or pre-coordination with authorities where feasible.

### 5. Security Planning and Compliance:

- a. Develop a comprehensive security plan in collaboration with vetted local security providers who have demonstrable GOVCON experience. This plan should address personnel security, vehicle security (including tracking and communication), route security assessments, and site security for any leased storage facilities.
- b. Factor in realistic timelines and budgets for all necessary personnel and vehicle security clearances through DLA and KRG/Iraqi channels.
- 6. **Operational Flexibility:** Design an operational model that is flexible and adaptive, capable of responding to potential changes in the local market conditions, security environment, or political landscape between Baghdad and Erbil.
- 7. **Demonstrate Regional Understanding and Compliance:** Clearly articulate in the proposal a deep understanding of the operational environment within the KRG, including its unique challenges and opportunities. Emphasize a robust commitment to full DLA compliance in all aspects of contract performance, including ethical sourcing, quality assurance, safety, and environmental stewardship.

By addressing these key considerations and implementing these recommendations, the proposal team can develop a competitive, resilient, and fully compliant offer that effectively meets DLA Energy's requirements for fuel supply in Erbil.

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