SECRETARIAT

LINKING REIMBURSEMENT OF MAJOR EQUIPMENT TO USAGE

Secretariat Issue Paper # 12 – Mandated Study

1. ISSUE PAPER THEME: Major Equipment

2. SUMMARY / BACKGROUND / PREVIOUS HISTORY

The General Assembly, in its resolution 50/222 of 11 April 1996, authorized the implementation of new procedures for determining reimbursement to Member States for contingent-owned equipment (COE). The Manual on Policies and Procedures concerning the Reimbursement and Control of Contingent-Owned Equipment of Troop/Police Contributors Participating in Field Missions (the COE Manual) details the procedures authorized by the General Assembly. Troop/police contributing countries (T/PCCs) are reimbursed for major equipment and self-sustainment in accordance with rates adopted by the General Assembly in chapter 8 of the COE Manual. As of today, contingent-owned major equipment is reimbursed under either a wet lease or a dry lease arrangement. The reimbursement is limited to those items of serviceable major equipment agreed to by the United Nations and T/PCCs in their respective memoranda of understanding (MOU).

In its report (A/77/736), the 2023 COE Working Group requested the Secretariat to conduct a comprehensive study on how best to reimburse T/PCCs based on usage over operability of major equipment and to present the study conclusions to the 2026 COE Working Group.

While the study methodology is provided as an annex to this issue paper, this document outlines the study's findings and proposes to the Member States the most suitable methodology for linking reimbursement of major equipment to its usage.

Aligning reimbursement of major equipment with actual utilization will improve efficiency, increase transparency, and optimize resources use. Under the current COE framework, units are reimbursed at the same applicable rate regardless of equipment utilization, which favors units with low equipment use over those with high equipment use. This comes from the maintenance component, which accounts for a significant part of the monthly reimbursement: idle equipment, requiring minor or no maintenance, receives the same monthly maintenance reimbursement rate under the wet lease MOUs as heavily utilized equipment incurring higher, real maintenance and spare-parts costs and experiencing accelerated wear that can necessitate earlier replacement. By linking reimbursement of major equipment to its usage, the United Nations can promote fairness across units, strengthen financial control through transparent and equitable reimbursement model that incentivize the use of equipment for efficient support of missions' mandates.

Beyond fairness and financial control, a usage-based reimbursement framework offers operational advantages. It promotes data-driven decision making by generating usage metrics that can inform on optimizing and rightsizing capabilities, operational rebalancing and redeployment of uniformed units when required to gain efficiency in peace operations. Similarly, usage patterns will inform fuel, oil, and lubricant allocation, enabling optimization of the supply chain in this area, which presents serious challenges in the majority of peacekeeping operations.

2.1 Usage-Based Reimbursement Models

Two distinct approaches emerged from the analysis. The first, “threshold model,” links reimbursement to usage that exceeds a predetermined threshold (for example, operating hours or kilometers driven). This design aligns reimbursement directly with the level of use, below or above the threshold, and can incentivize major equipment utilization; however, it requires robust usage tracking and may not be efficiently applicable to all categories. The second approach, referred to as the “usage-frequency model,” qualifies equipment for reimbursement once it is used a minimum number of times per month, regardless of duration, distance traveled...etc. This model reduces reliance on precise meters, simplifies administrative procedures, and offers a lower implementation cost. However, since usage will be mostly self-reported, it provides limited opportunities for management and financial control, and field missions may face challenges in confirming whether the reported usage directly supports operational needs.

Based on the threshold and usage-frequency approaches, the study developed and assessed several usage-reimbursement models that include maintenance cost, mission factors, frequency of use as well as different threshold models. Each model was evaluated against the four principles of the COE framework: simplicity, accountability, financial control, and management control. Of these, the multi-threshold model proved to be the most suitable and implementable, fully satisfying all four COE principles.

3. DETAILED PROPOSAL

Considering the full scope of work carried out during the study, including field findings, categorization of equipment, feasibility assessment, consultations with subject matter experts, and data analysis, the study recommends adopting a usage-threshold reimbursement model applicable only to support vehicles and prime-power generators in first phase, and to extend it to other vehicles later based on lessons learnt.

The threshold-based reimbursement model will consist of a hybrid model combining a reimbursement portion for serviceability and a portion for usage. Under this model, a third parameter for reimbursement eligibility is introduced. In addition to availability on the ground and serviceability, which will allow 50% reimbursement of the applicable rate, support vehicles and prime-power generators must be used to receive usage rate of the usage-based reimbursement model, with the level of reimbursement determined according to predefined usage thresholds. This threshold-based approach ensures that higher utilization is appropriately reflected in reimbursement which fairly compensates uniformed units showing higher utilization in support of the mission mandate.

The efficiency and applicability of the proposed threshold-based reimbursement model relies on the presence of an accurate tracking system, standardized usage thresholds, and adequate procedures for data collection and validation.

3.1 Reimbursement Model: Support Vehicles

While the first three months of the collected data served for qualitative analysis, the usage thresholds of support vehicles were established using data collected from all field missions over quarter 2, 2025 (April, May, June), which allowed to estimate the monthly average distance traveled by support vehicles, based on contingents self-reporting, at 250 km.

The threshold-based reimbursement model is recommended to balance efficiency and operational realities. A reduced rate of 60% is proposed for the reimbursement of support vehicles with very light usage that provides limited mission value. For below moderate usage, a 90% rate acknowledges the vehicles’ operational contribution while applying a 10% reduction to account for below-average utilization. At the moderate usage level, full reimbursement at 100% is granted, covering the actual costs of maintaining vehicles deployed under standard conditions and ensuring equitable reimbursement across units. Finally, when usage exceeds normal use, an extra 5% is provided as an incentive to recognize the additional financial and operational burden associated with accelerated wear and higher maintenance requirements. For unused support vehicles, it is recommended to limit

the reimbursement to 50% of the applicable rate while unserviceable items remain ineligible for reimbursement, which is already stipulated by the current reimbursement framework. These percentages of reimbursement are applied to wet lease rates for wet lease MOUs and to dry lease rates for dry lease MOUs, as defined under chapter 8, Annex A of the COE Manual.

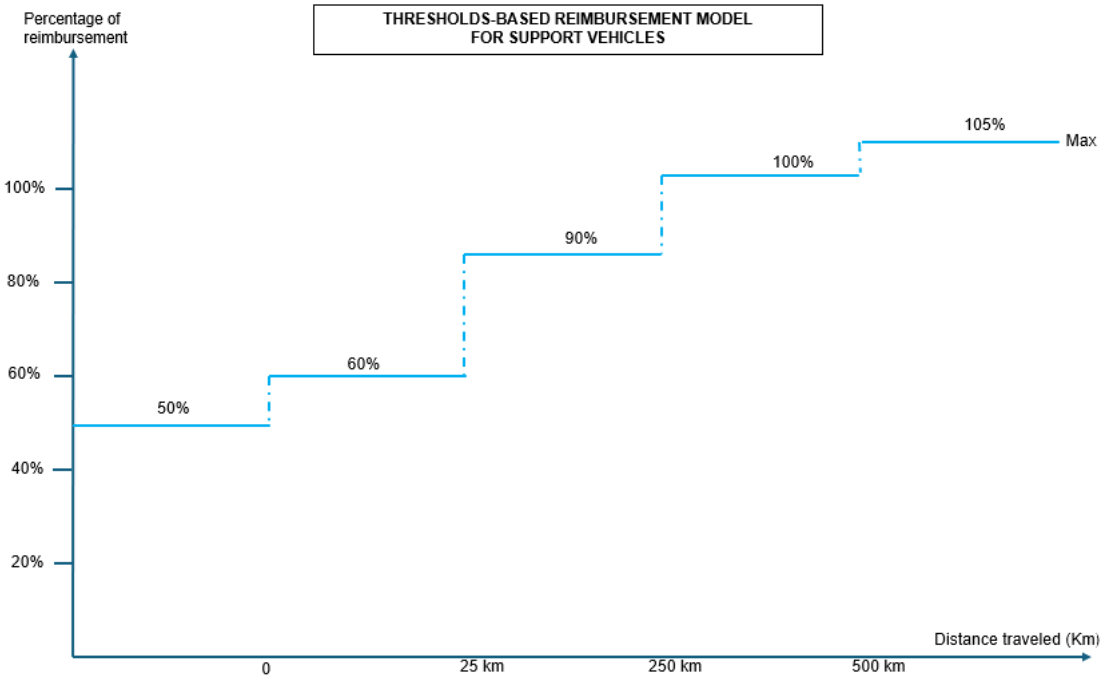
a. Non-Used, Serviceable Support Vehicles
Reimbursement: 50% of the applicable rate.

b. Used Serviceable Support Vehicles

- **Light Usage (0 - Threshold 1):** limited usage of support vehicles with minimal or no wear and tear (limited tasks within or around the camp).
  - Reimbursement: 60% of the applicable rate.
  - Threshold1: **25 km per month**
- **Below Moderate Usage (Threshold 1 - Threshold 2):** Support vehicles contribute to the unit operations but travel shorter than the average monthly distance.
  - Reimbursement: 90% of the applicable rate.
  - Threshold 2: **250 km per month**

- **Moderate Usage (Threshold 2 - Threshold 3):** Support vehicles meet the average monthly distance under standard operational deployment.
  - Reimbursement: 100% of the applicable rate.
  - Threshold 3: **500 km per month**

- **High Usage (> Threshold 3):** Support vehicles exceed the average monthly distance, resulting in accelerated wear and tear.
  - Reimbursement: 105% of the applicable rate.



- The percentages of reimbursement are applied to wet lease rates for wet lease MOUs and to dry lease rates for dry lease MOUs, as defined under chapter 8, Annex A of the COE Manual.

- The percentages of reimbursement are applied to serviceable support vehicles.

3.2 Reimbursement Model: Prime Power Generators

The generator reimbursement model proposed by the study is also based on three thresholds; however, no incentive is provided above the 100% reimbursement level, since the MOUs already allocate enough generators with the required power generation capability to meet the power requirements determined based on the unit strength (5 KVA/person, including backup).

The Reimbursement model proposed for prime power generators is based on actual power output, expressed in kilowatt-hours (kWh). Thresholds are determined using the generator's capacity in KVA, the power coefficient (0.8), minimum load factor of 65% and the number of operating hours per day. The study considered 4 hours, 8 hours and 12 hours corresponding to low, medium and acceptable daily running time of prime power generators. The minimum load factor of 65% is derived from the existing policy manuals and aligns with established standards in the power generation industry, this load ensures both operational efficiency and optimal generator performance.

This usage-based reimbursement model proposed for prime power generators not only enhances operational efficiency of electrical equipment but also encourages troop/police-contributing countries to right-size their generators and avoid the deployment of large-capacity ones. Which will consequently reduce fuel consumption, lower operational costs, and reduce environmental footprint.

The usage-based reimbursement model is recommended to only prime power generators, identified in the COE Manual as "*generators, stationary and mobile"* and "*generators, ISO 8528 prime power standard and role generator"*.

Based on the daily average output in kWh of prime power generators, the study recommends that their reimbursement be determined as follows, and the detailed table is included under the 'Proposed Text for COE Manual Chapter 8 annex A appendix 1':

a. Non-Used, Serviceable Prime Power Generators

Reimbursement: 50% of the applicable rate in the COE Manual, chapter 8, annex A

b. Used Serviceable Prime Power Generators

- **Below Threshold 1**: Very inefficient: reimburse at **60%** of the applicable rate in the COE Manual, chapter annex A
- **Between Threshold 1 and Threshold 2**: Inefficient: reimburse at **80%** of the applicable rate in the COE Manual, chapter 8 annex A
- **Between Threshold 2 and Threshold 3**: Moderately efficient: reimburse at **90%** of the applicable rate in the COE Manual, chapter 8 annex A
- **Above Threshold 3**: Efficient: reimburse at **100%** of the applicable rate in the COE Manual, chapter 8 annex A

Additional Recommendations:
In addition to the usage-based reimbursement models proposed for support vehicles and prime-power generators, the study recommends the following:

a. Approving the proposal to equip vehicles with fleet management devices, as proposed in the Secretariat issue paper number 14. Support vehicles should be prioritized, as tracking systems are critical for the implementation of the usage-based reimbursement model proposed for support vehicles.

b. Approving the proposal to equip major equipment generators with smart energy meters, as proposed in the Secretariat issue paper number 13 which are essential for the usage-based reimbursement model proposed for prime-power generators.

c. While reimbursement for vehicles other than support ones, which combine mobile and static roles, particularly combat and engineering vehicles, is not currently being recommended for linking to usage, due to the challenge in quantifying their usage, it is recommended that a mandated study on their utilization be recommended based on data from the fleet management system. The study should focus on understanding how these combat vehicles are employed, the extent of support they provide to the field missions, and the context in which they are most valuable. Such a mandated study will offer insights into their operational contribution and help identify options to optimize their efficiency in the future.

d. Review the usage thresholds for support vehicles, following the effective installation of the fleet management devices. The review should benefit from the accuracy of the data collected through the usage tracking system and shall cover only the threshold values in kilometers under the same established usage-based reimbursement model.

e. Through the 2029 COE WG, review and revise the linkage of serviceability of odometers, hour meters and kWh meters to the serviceability of support vehicles and generators, once the usage-based reimbursement policy is implemented.

Benefits of Linking Reimbursement of Major Equipment to Usage

By linking reimbursement to actual usage, missions gain the ability to track utilization patterns across units and sectors, allowing them to compare operational intensity and identify cases where equipment is either underused or overstretched. This creates an opportunity not only for efficiency but also for operational rebalancing. The availability of vehicles' usage data gives an indication of the operational activities and allow the Force and Police components in peacekeeping missions to evaluate the actual intensity of operations and make informed decisions on balancing and redeploying assets. This ensures more flexible and agile operations, where units are not locked into specific areas of responsibility since their deployment but can be dynamically reassigned to respond to operational needs and challenges.

Additionally, consistent overuse or underuse of support vehicles and prime power generators require amendment of the applicable MOUs either to increase or to decrease the number of the affected items. For example, a fleet of support vehicles that remain largely idle in a low-intensity sector could be rightsized in the MOU to align quantities of support vehicles with the real requirement. Similarly, an infantry battalion with continued deployment of vehicles for a long period may require amending the MOU to align with the unit's role and responsibilities.

In the same context, tracking utilization of vehicles may support missions' reviews and studies by relying more on accurate data. It will also improve the process of rotation of COE at UN expense, by prioritizing the replacement of heavily used support vehicles/generators, particularly considering the budget limitations associated with such rotations.

In conclusion, linking usage to reimbursement will bring more than financial efficiency, it will enhance agility and resilience in responding to operational challenges.

3.3. Implementation

The transition to a usage-based reimbursement model is considered through a multi-phased project from Q1 2026 to Q3 2029. It will encompass a policy update, procurement and installation of tracking systems, upgrades of Uniformed Capability Management (UCM), and capacity building aligned to the revised verification, reporting and reimbursement methodology. Thus, the effective date to incorporate the new reimbursement standards is envisaged for Q3 2029; however, it remains contingent on the timely completion of the key prerequisites, notably the installation of tracking systems on support vehicles and the upgrade of the UCM.

3.3.1 Policy update: Quarter 1 and Quarter 2 of 2026

The initial phase, scheduled for Quarter 1 and Quarter 2 of 2026, consists of a comprehensive update of the COE manual that includes procedures and standards of the usage-based reimbursement model, as endorsed by the 2026 COE WG.

3.3.2 Preparation and upgrades: Q3 2026 to Q2 2029

In the subsequent phase, from Quarter 3, 2026 to Quarter 2, 2029, implementation efforts will concentrate on four parallel streams. First, field verification guidelines will be revised to incorporate new usage-based criteria and verification process. Second, capacity building through workshops and training sessions to prepare field COE units to apply these guidelines, with practical exercises in data collection and reporting. Third, the UCM will be enhanced to support changes in the reimbursement model, usage reporting, and differentiated reimbursement levels based on the thresholds approved by the 2026 COE WG. Simultaneously with these activities, the installation of usage-tracking devices will be carried out, for the support vehicles, as per the outcome of the study on fleet management and as presented in the Secretariat issue paper number 14 and for the generators, as per the Secretariat issue paper number 13 This work will involve budgeting, procurement, installation and activation of the tracking device.

3.3.3 Verification, reporting and reimbursements, Quarter 3 2029

The final phase will consist of implementation of the verification, reporting and reimbursement that shall commence in Quarter 3 2029, or upon completion of UCM upgrade and tracking systems installations, whichever occurs later.

4. FINANCIAL IMPLICATIONS

Adopting a usage-based reimbursement model for support vehicles and prime power generators will bring efficiency. However**,** implementation costs must be accounted for installing and managing tracking systems. The costs associated with tracking systems of prime power generators and support vehicles are detailed in the Secretariat issue papers number 13 and number 14 respectively. The financial implications can be summarized as follows:

a. Installation of Tracking Systems:

a.1 The estimated cost to equip 6500 support vehicles is $ 6,907,600 over a three-year project, with an average annual cost of $ 2,302,533. Following the initial three years, recurring expenses are estimated at around $ 859,622 annually to cover management, maintenance, and service fees.

a.2 The estimated cost to equip 2548 major equipment generators is $ 4,603,948 over a two-year project, with an average annual cost of $ 2,301,974. Following the initial three years, recurring expenses are projected at $ 1,318,432 annually to cover management, maintenance, and service fees.

b. Project Implementation

In addition to the costs associated with installing tracking systems, the implementation of the study recommendations will necessitate the allocation of sufficient resources to manage the increased scope of activities associated with their execution. The field verification guidelines will need to be updated and reviewed to incorporate the newly introduced usage-based criteria and verification processes. Parallel to this, there will be a need to build capacity in the field through workshops and training sessions to prepare field COE units to effectively apply the updated guidelines. Furthermore, the UCM must be upgraded to accommodate the transition to the new model, including the integration of usage reporting and the application of differentiated reimbursement levels.

c. Implications on Reimbursement

While it is difficult to estimate the financial implications of reimbursement at this stage, it is certain that the usage-based reimbursement model will improve efficiency by ensuring that heavily used equipment is reimbursed at a higher level than equipment with lower usage.

5. PROPOSED 2026 COE MANUAL TEXT

Revise para 10 in Chapter 2: COE Manual Page 7 by adding the text in bold:

10. Troop/police contributors are reimbursed for major equipment and self-sustainment in accordance with rates adopted by the General Assembly. For major equipment, troop/police contributors are reimbursed under either a wet lease or a dry lease arrangement. Reimbursement is limited to those items of serviceable major equipment (including associated minor equipment and consumables) specifically agreed to by the United Nations[7]. **In addition to serviceability, a usage parameter will be applied to the reimbursement of support vehicles military pattern, support vehicles commercial pattern, generators, stationary and mobile and generators, ISO 8528 prime power standard and role generator, effective 1 July 2029, or upon installation of tracking systems on generators and support vehicles and upgrade of the Uniformed Capabilities Management system, whichever occurs later.** Should a unit provide less major equipment or fewer self-sustainment categories than stipulated in the memorandum of understanding, the troop/police contributor will be reimbursed only for major equipment or self-sustainment categories actually provided. The rates for major equipment are presented in chapter 8, annex A, and the rates for self-sustainment are presented in chapter 8, annex B. Rates of reimbursement for special case equipment will be negotiated separately between the troop/police contributor and the United Nations, as indicated in chapter 5.

Revise para 4 in Chapter 3: COE Manual Page 23 by adding the text in bold:

4. The United Nations, in conjunction with the respective contingents or delegated authority designated by the troop/police contributor, is responsible for ensuring that the equipment and services provided by troop/police contributors meet the requirements of the peacekeeping operation and are provided in accordance with the memorandum of understanding. In order to do so, the United Nations will verify the status, condition and quantity of the equipment and services provided. **The verification of support vehicles military pattern, support vehicles commercial pattern, generators, stationary and mobile and generators, ISO 8528 prime power standard and role generator, effective 1 July 2029, or upon installation of tracking systems on generators and support vehicles and upgrade of the Uniformed Capabilities Management system, whichever occurs later**. This control is implemented in cooperation between the United Nations and the troop/police contributor in accordance with the terms of the memorandum of understanding for the provision of military/police personnel, equipment and services.

Add a new bullet point to the existing para 11 in Chapter 3, annex A, page 31:

11.

- **In addition to serviceability, the reimbursement for generators, stationary and mobile and generators, ISO 8528 prime power standard and role generator shall be determined based on power generated in kWh, as per Chapter 8, annex A, appendix 1, effective 1 July 2029, or upon installation of tracking systems on generators and upgrade of the Uniformed Capability Management system, whichever occurs later.**

Add a new bullet point to the existing para 40 in Page 39:

40.

- **In addition to serviceability, reimbursement for support vehicles, military pattern and commercial pattern, shall be determined based on usage, as per Chapter 8, annex A, appendix 1, effective 1 July 2029, or upon installation of tracking systems on support vehicles and upgrade of Uniformed Capability Management system, whichever occurs later.**

Add the following footnotes in bold to Chapter 8, annex A Pages 190, 197, 198 and 201:

Generators, stationary and mobile[w]

Generators, ISO 8528 prime power[w]

Support vehicles[x] (commercial pattern)

Support vehicles[x] (military pattern)

[w] Generators, stationary and mobile and Generators, ISO 8528 prime power standard and role generator will be reimbursed based on power output, as per appendix 1 to this annex, effective 1 July 2029, or upon installation of tracking systems on generators and upgrade of the Uniformed Capabilities Management system, whichever occurs later.

[x] Support vehicles commercial pattern and support vehicles military pattern will be reimbursed based on usage, as per appendix 2 to this annex, effective 1 July 2029, or upon installation of tracking systems on support vehicles and upgrade of the Uniformed Capabilities Management system, whichever occurs later.

Add new appendix 1 to Chapter 8, annex A of the COE Manual:

Appendix 1
Reimbursement of Generators, stationary and mobile and Generators, ISO 8528 prime power standard and role generator based on usage

	Reimbursed at 50%[a]	Reimbursed at 60% [a]	Reimbursed at 80% [a]	Reimbursed at 90% [a]	Reimbursed at 100% [a]
Item Description	**Not used**	**Used with output (kWh)[b] up to**	**Used with output (kWh)[b]**	**Used with output (kWh)[b]**	**Used with output greater than (kWh)[b]**
Generators, stationary and mobile 20 –30 kVA	**No output**	**52**	**53 -104**	**105 -156**	**156**
Generators, stationary and mobile 31 –40 kVA	**No output**	**74**	**75 - 148**	**149 - 222**	**222**
Generators, stationary and mobile 41 –50 kVA	**No output**	**95**	**96 - 189**	**190 - 284**	**284**
Generators, stationary and mobile 51 –75 kVA	**No output**	**131**	**132 - 262**	**263 - 393**	**393**
Generators, stationary and mobile 76 –100 kVA	**No output**	**183**	**184 - 366**	**367 - 549**	**549**

Generators, stationary and mobile 101–150 kVA	**No output**	**261**	**262 - 522**	**523 - 783**	**783**
Generators, stationary and mobile 151–200 kVA	**No output**	**365**	**366 - 730**	**731 - 1095**	**1095**
Generators, stationary and mobile 201–500 kVA	**No output**	**729**	**730 - 1458**	**1459 - 2187**	**2187**
Generators, stationary and mobile Greater than 500 kVA	**No output**	**A**	**(A+1) to B**	**(B + 1) to C**	**C**
Generators, ISO 8528 prime power standard and role generator 20–30 kVA	**No output**	**52**	**53 - 104**	**105 - 156**	**156**
Generators, ISO 8528 prime power standard and role generator 31–40 kVA	**No output**	**74**	**75 - 148**	**149 - 222**	**222**
Generators, ISO 8528 prime power standard and role generator 41–50 kVA	**No output**	**95**	**96 - 189**	**190 - 284**	**284**
Generators, ISO 8528 prime power standard and role generator 51–75 kVA	**No output**	**131**	**132 - 262**	**263 - 293**	**393**
Generators, ISO 8528 prime power standard and role generator 76–100 kVA	**No output**	**183**	**184 - 366**	**367 - 549**	**549**
Generators, ISO 8528 prime power standard and role generator 101–150 kVA	**No output**	**261**	**262 - 522**	**523 - 783**	**783**
Generators, ISO 8528 prime power standard and role generator 151–200 kVA	**No output**	**365**	**366 - 730**	**731 - 1095**	**1095**
Generators, ISO 8528 prime power standard and role generator 201–330 kVA	**No output**	**552**	**553 - 1104**	**1105 - 1657**	**1657**
Generators, ISO 8528 prime power standard and role generator 331–500 kVA	**No output**	**864**	**865 - 1728**	**1729 - 2593**	**2593**
Generators, ISO 8528 prime power standard and role generator greater than 500 kVA	**No output**	**A**	**(A+1) to B**	**(B + 1) to C**	**C**

[a] Percentage applied to the respective rates defined under chapter 8, annex A of this Manual
[b] Average daily output in (kWh)
A (kWh) = exact capacity of the generator (KVA) x 0.8 x 4 x 65%
B (kWh) = exact capacity of the generator (KVA) x 0.8 x 8 x 65%
C (kWh) = exact capacity of the generator (KVA) x 0.8 x 12 x 65%

Add a new appendix 2 to Chapter 8, annex A of the COE Manual:

Appendix 2
Reimbursement of support vehicles based on usage

Range of usage (Distance traveled) [a]	**No usage**	**0 - 25 km**	**26 km – 250 km**	**251km - 500 km**	**Greater than 500 km**
Reimbursement [b]	**50%**	**60%**	**90%**	**100%**	**105%**

[a] Usage range is measured in kilometers traveled per vehicle per month, distance to be rounded to the nearest whole number.
[b] The percentage of reimbursement is applied to the rate defined under chapter 8, Annex A of this Manual.

ANNEX TO THE ISSUE PAPER ON LINKING REIMBURSEMENT OF MAJOR EQUIPMENT TO USAGE

This study on linking reimbursement of major equipment to usage was conducted with adherence to the four principles of COE framework: simplicity, accountability, financial control, and management control, while remaining fully aligned with operational realities in field missions. It proceeded through four combined phases designed to ensure both methodological integrity and practical relevance. The project was initiated with an in-depth discussion with subject matter experts to shape the study's framework and validate its direction. This was followed by a desktop assessment and categorization of major equipment, a critical step that structured the analysis and enabled clearer evaluation before two field visits, where direct discussion with uniformed units and mission components allowed to link initial concepts to real practices. Finally, the study culminated in comprehensive data collection and analysis, that quantified usage patterns and enabled the formulation of a usage-based reimbursement model for the applicable categories that respond to the study mandate in the best way. The study methodology ensured that outcomes were both implementable and policy aligned.

1. Stakeholder Engagement

The initial phase focused on gathering insights from subject matter experts and field COE units to explore options, identify potential challenges, assess feasibility and discuss best approaches to link reimbursement of major equipment to its usage. This collaborative work was supplemented by regular briefings to management to provide progress updates and obtain guidance for subsequent phases of the study. Stakeholder engagement was expanded during the field visits to cover further aspects and considerations related to linking equipment reimbursement directly to actual usage.

2. Equipment Categorization and Feasibility Assessment

Effective categorization of equipment was essential to ensure that analysis and the proposed usage-based reimbursement model are applicable within the operational realities. It was important to group major equipment categories according to different parameters such as trackability and operational profile to better understand how equipment is tasked and used. This approach provided the basis for designing the initial usage-based reimbursement models before narrowing options, as the study progressed, to the most feasible, as per the four guiding principles of the COE framework.

Given that trackability is essential for the effective implementation of a usage-based reimbursement model, the study determined that fuel-powered major equipment, such as vehicles and electrical equipment are equipped with built-in meters that enable measuring usage and thus are more trackable. Non-fuel-powered equipment, such as accommodation, armaments, communications equipment…etc, on the other hand, can rely only on manual logs and are more prone to errors and conflict of interest when reporting on usage.

In addition to trackability assessment, five operational categories of major equipment were identified to capture usage patterns and assess their suitability for a usage-based reimbursement framework. The first category consists of equipment with regular use, such as support vehicles, which demonstrate consistent activity and align naturally with a usage-based model. The second category includes major equipment with irregular or unpredictable usage frequency, such as riot control equipment or water cannon trucks, where irregular utilization complicates the definition of reasonable usage metrics. The third category covers specialized equipment such as demining, explosive ordnance and improvised explosive device disposal equipment, which operates on highly variable frequency in response to specific mission needs. The fourth category comprises standby or emergency equipment, including firefighting trucks, sewer-cleaning vehicles, which remain idle until needs arise, creating challenges for both threshold and frequency-based reimbursement approaches. The fifth and final category relates to medical facilities, whose critical and confidential operations require special handling and often fall outside the scope of typical usage tracking schemes.

The feasibility assessment determined that fuel-powered major equipment with measurable use, specifically support vehicles and prime-power generators, are suitable for inclusion in a fully usage-based reimbursement model, provided that advanced tracking systems are installed on this equipment to capture exact distances traveled and kilowatt-hour outputs. Major equipment in the remaining categories either lack reliable tracking

mechanisms or present complex and mixed usage patterns, making accurate tracking challenging and difficult to quantify. For example, vehicle sub-categories other than support vehicles may operate in a mobile capacity for patrolling, where distance traveled serves as the usage metric, or in a static role for deterrence or tasks such as controlling a position, as in the case of combat vehicles, particularly armoured personnel infantry carriers. A similar situation applies to engineering vehicles, which may be used in a static capacity for vertical work or in a mobile capacity for horizontal engineering tasks.

3. Field Visits

A combined field visit, conducted to UNMISS and MINUSCA, provided an opportunity to review initial concepts and explore the implications of transitioning from a serviceability-based to a usage-based reimbursement model. The objectives of these field visits were to evaluate the feasibility of linking reimbursement to actual usage and to discuss the associated operational and policy considerations with the force, police and support components of the two missions. The field visits allowed to bridge the analysis performed at headquarters with the ground realities. The visits included assessments and on-site visits of fifteen units, with diverse equipment and operational profiles, ranging from police, reserve, enablers, infantry battalions to quick-reaction formations. Roundtable discussions with mission's components and units' commanding officers helped to examine usage patterns and to identify how they relate with each unit's nature and employment mode, whether static or mobile.

The force, police and support components of the two field missions visited, unanimously acknowledged the risks associated with a usage-based reimbursement model based on self-reporting, noting the potential margin of error as well as conflicts of interest when units record and report their own equipment usage, particularly since equipment use is often initiated by units rather than driven by formal task orders from the force or the police headquarters.

The concerns about self-reporting were confirmed during the data collection phase, where a portion of the submitted data was misreported and contained errors.

The on-site visits to the uniformed units revealed that some equipment has become redundant due to the changes in operational requirements since deployment. These non-used items continue to be fully reimbursed under the existing reimbursement framework, since they are serviceable, despite limited operational value.

4. Data Collection and Analysis

The data collection covered two quarters, from January to June 2025, and served as a key element in confirming the conclusions drawn from the field visits and finalizing the recommendations. Usage data, self-reported by the uniformed units across all field missions, captured the daily usage of equipment together with meters readings and the purpose of each use. While this approach provided a good understanding on how contingents use their major equipment in the field, it also introduced challenges related to accuracy, as the records contained errors, and typo mistakes. Significant effort was dedicated to data cleaning and validation to prepare the dataset for analysis. This process involved cross-checking entries, applying consistency checks, and discussing with some field missions to compare reported usage against expected operational patterns. Data that appeared exaggerated or affected by obvious input errors were excluded from the analysis to preserve reliability. As a result, the accuracy of the dataset used for analysis is estimated at approximately 70% to 80%. The analysis focused primarily on support vehicles and generators, as these categories are the most trackable and suitable for a usage-based reimbursement model as per the conclusions of the section 2 of this annex "*Equipment Categorization and Feasibility Assessment*" of this issue paper.

The analysis identified distinct utilization patterns, ranging from continuously operated support vehicles and generators to standby equipment activated only in specific scenarios. Key assumptions were confirmed, and the data provided the basis for calculating usage averages of support vehicles, which were instrumental in finalizing the usage-based reimbursement model proposed in this paper.

A notable difference in usage patterns was observed, driven by differences in operational requirements, the nature and role of units, and external factors such as season and weather conditions. Units engaged in mobile operations

recorded significantly higher usage, particularly during periods of intensified activity, while static or specialized units reported lower utilization. Mission mandates, security and political context also influenced the operational tempo, which impacts both the frequency and intensity of equipment use.