# Post-editing Strategies for New Energy Translation aided by DeepSeek

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**Abstract:** While machine translation (MT) tools are capable of improving translation efficiency for language service industry, MT post-editing quality still remains challenging due to language gaps and customer requirements. This study investigates the application of Deepseek in new energy translations and puts forward five post-editing strategies for Chinese-English translation. The article provides effective solutions for optimizing DeepSeek's translation, facilitating international dissemination of new energy technologies.

**Keywords**: Machine translation; Post-editing; Error analysis; New energy.

## 1. Introduction

Machine translation (MT) has achieved foundational breakthroughs in the AI era, gaining broad industry recognition. AI-powered language technologies now significantly enhance syntactic coherence and terminological precision in MT outputs, largely fulfilling requirements for high-volume text processing.

Nevertheless, translators must cope with profound linguistic disparities such as conflicts between paratactic Chinese and hypotactic English structures, and challenges in handling culturally loaded terms and achieving language naturalness. Based on our detailed analysis on CNKI database, we find that the major post-editing strategies involves lexical processing, syntactic structures, textual coherence,etc. Hu & Leng (2023) document DeepL's limitations in term recognition, idiomatic expression, and contextual adaptation. Fan (2025) observes ChatGPT's deficiencies in maintaining coherence and fidelity when translating intricate sentences. Zhou (2020) identifies Google Translate's logical flaws—including erroneous syntax, omitted connectives, and subject ellipsis. Gu (2024) further notes ChatGPT's limitations in standardized terminology usage and semantic disambiguation. Despite DeepSeek's widespread adoption has gained much acceptance in practical applications, its performance in technical translation has not been evaluated enough.

This research therefore summarizes common error patterns in DeepSeek-generated translations of new energy texts and proposes the corresponding PE strategies.

## 2. Five Post-editing (PE) Strategies for DeepSeek-generated translation

### 2.1 Free translation of Imagistic Expressions in Source Text

Compared to English, Chinese prioritizes image expressions and free translation is recommended to solve the Chinglish of keeping imagistic expressions in English. Here are some examples:

Example1：Source Text: 该项目是水电九局**深耕**毛里求斯市场14年的又一成果

DeepSeek MT: This project is another achievement of Sinohydro Bureau 9's 14-year **deep cultivation** in the Mauritius market.

Post-edited version: This project stands as another testament to Sinohydro Bureau 9's 14-year **sustained dedication** to cultivating the Mauritius market.

Analysis: The Chinese "深耕" (literally "deep ploughing") originates from agriculture, denoting intensive soil preparation to enhance fertility. In Chinese context, it metaphorically implies long-term, focused engagement in a specific domain (e.g., market development), emphasizing depth over breadth. English lacks this metaphor, and the literal translation "deep cultivation" may mislead readers by evoking farming connotations. While "cultivation" can be used to non-agricultural contexts, e.g., "skill cultivation", it fails to convey the temporal continuity and strategic commitment inherent in "深耕." Our post-editing translatiom

*sustained dedication to cultivating* preserves the core notion of nurturing while explicitly embedding temporal persistence and purposeful effort, thus aligning with the pragmatic expectations of English corporate discourse.

Example2: Source Text: 坚持"用好**每一阵风**"的理念

DeepSeek MT: Uphold the philosophy of 'making the best use of **every gust of wind**'.

Post-edited version: We uphold the principle of maximizing **every resource within our reach**.

Analysis: The Chinese "风" frequently serves as a metaphor for opportunities or resources e.g., "乘风破浪", an idiom which means *to ride the wind and waves*.In contrast, English associates "wind" primarily with meteorological phenomena or abstract trends, e.g., "winds of change". The *every gust of wind* in the machine translation creates dissonance by suggesting literal wind utilization. Our post-edited version "maximizing every resource" discards the metaphor to prioritize semantic transparency, while "within our reach" reinforces proactive resource management. This post-editing approach adheres to the translation principle of functional equivalence, ensuring the target text fulfills the same persuasive function as the source text.

Example3: Source Text: 科研人员应该做"**顶天立地**"的科研

DeepSeek MT: Researchers should conduct "**groundbreaking and application-oriented**" scientific research.

Post-edited version: Researchers should pursue **visionary yet actionable** scientific endeavors.

Analysis: The idiom "顶天立地" (literally "supporting heaven and standing firm on earth") embodies dual imperatives:"顶天"means *advancing cutting-edge research aligned with national strategic priorities* while "立地" refers to *ensuring practical implementation of scientific outcomes*. Deepseek's "groundbreaking and application-oriented" reduces this spatial metaphor to informative attributes. "Groundbreaking" captures innovation but loses strategic vision; "application-oriented" denotes utility but omits social responsibility connotations. Our version *visionary yet actionable* transform the vertical metaphor into a temporal-pragmatic duality: "visionary" conveys foresight (heavenward aspiration), while "actionable" stresses implementable outcomes (earthbound pragmatism). The conjunction "yet" implicitly acknowledges the inherent tension between these ideals, mirroring the call for balanced scientific excellence.

Example 4: Source Text: 加速企业资金"**活水回流**"

DeepSeek MT: Accelerate **the revitalized circulation** of corporate funds.

Post-edited version: Accelerate **the return of corporate funds to operational circulation**.

Analysis: The phrase "活水回流" (literally 'living water backflow')metaphorically positions fund recovery as regenerated liquidity within Chinese financial discourse, evoking the image of living water returning to its source. Although "revitalized circulation" captures the renewed activity aspect, it fundamentally obscures the core directional imperative embedded in "回流"

(backflow) — the critical notion of funds moving back to their origin point. To resolve this, we adopts "return" to establish directional precision, specifies "operational circulation" to clarify active redeployment contexts, and deliberately neutralizes the ecological metaphor to prevent conflation with natural water cycles. This strategy aligns with the conventions of English financial discourse, where entrenched dead metaphors like "cash flow" systematically prevail over culturally novel imagery, thus ensuring transactional intent remains transparent.

## 2.2 Omission of Redundant Expression in Source Text

A key difference between Chinese and English also lies in another way. Chinese often employs word repetition for the purpose like emphasis or coherence. In contrast, English avoids redundant expressions to ensure conciseness, except for specific contexts like contracts or legal documents. We must pay attention to the bilingual difference when post-editing.

Example 5: Source Text:**培育打造**一批数字化转型领跑者

DeepSeek MT: **Foster and cultivate** a group of leading pioneers in digital transformation.

Post-edited version: **Cultivate** a cohort of leading pioneers in digital transformation.

Analysis: The Chinese collocation "培育打造" (foster and cultivate) functions as a conventional binomial expression denoting meticulous development. However, in English, "foster" and "cultivate" exhibit significant semantic overlap when modifying identical objects (e.g., talent development), resulting in unnecessary repetition. We streamlines this redundancy by retaining "cultivate", which inherently encompasses strategic nurturing,while upgrading "group" to "cohort" for enhanced terminological precision.

Example 6: Source Text:用于探索金融领域更高效的**问题解决方案**

DeepSeek MT: For exploring more efficient **solutions to problems** in the financial sector.

Post-edited version : For exploring more efficient **solutions** in the financial sector.

Analysis: The phrase "问题解决方案" (solutions to problems) contains inherent redundancy since "solution" lexically presupposes *problem-solving*. Deepseek's literal rendering "solutions to problems" mirrors the Chinese structure but violates English economy principles – analogous to saying "solutions for solving problems". We omitted "to problems" and achieve proper technical communication in English.

## 2.3 Adaptation of Narrative Pattern

Due to cultural differences, Chinese and English differ significantly in how companies refer to themselves: Chinese official websites tend to use the third person for company profile, while English versions typically use the first person to sound more personal and objective. Therefore, when editing Chinese-to-English machine translations, it's essential to adjust the point of view to make the final text sound natural and resonate with readers.

Example 7: Source Text: **中国商飞**是实施国家大型飞机重大专项中大型客机项目的主体

DeepSeek MT: **COMAC** is the entity responsible for implementing the large passenger aircraft program under the National Major Large Aircraft Project.

Post-edited version: As the principal entity entrusted with implementing the large passenger aircraft program under China's Major National Large Aircraft Project, **we** are dedicated to advancing this strategic national initiative.

Analysis: While post-editing the DeepSeek MT, the shift to first-person *"we"* serves three objectives: 1) to construct COMAC as an active narrator, 2) to transform static responsibility into proactive commitment, and 3) to embed strategic ownership. This aligns with standard English corporate discourse that use "we" in mission statements.

Example 8: Source Text: 作为网信事业国家队，**中国电科**牢牢把握数字化、网络化、智能化融合发展契机

DeepSeek MT: As a national team in the cyber and information industry, **China Electronics Technology Group Corporation (CETC)** firmly seizes the opportunity presented by the integrated development of digitalization, networking, and intelligentization.

Post-edited version: As a national leader in the cyber and information industry, **we embrace** the opportunity presented by the integrated development of digitalization, networking, and intelligentization.

Analysis: DeepSeek's third-person construction maintains institutional formality but creates communicative distance in English corporate contexts. Our revision to "we" activates corporate agency and this transition embodies the fundamental principle of enterprises speaking directly in business communication.

## 2.4 Priority of Results

Due to cultural differences, Chinese and English writers organize information differently. Chinese typically follows a time sequence (past to present) or a logic chain (cause to effect), while English often prioritizes results over causes and key information over supporting details. Therefore, post-editing Chinese-to-English translations requires adjusting sentence structures to improve readability.

Example 9: Source Text: **围绕**传统矿区，**利用**采煤沉陷区、复垦区和自有屋顶资源，**开发**建设清洁能源基地、分布式光伏项目，推动新能源+生态治理新模式。

DeepSeek MT: Centering on traditional mining areas, **we will utilize** coal mining subsidence areas, reclaimed lands, and existing rooftop resources **to develop** clean energy bases and distributed photovoltaic projects, **thereby advancing** the innovative "new energy + ecological management" model.

Post-edited version: Focusing on traditional mining areas, **we will promote** a new paradigm combining renewable energy with ecological remediation **by utilizing** subsidence zones, reclaimed lands and rooftop resources **to establish** clean energy bases and deploy distributed PV projects.

Analysis: The source text employs consecutive verbs "利用", "开发建设"and"推动" to form a process-oriented chain, characteristic of Chinese syntactic preferences that prioritize action sequences. However, the sequential structure "utilize... to

develop..., thereby advancing..." used by Deepseek does not confirm to English conventions that prioritize core outcomes. The post-edited version restructures the sentence by front-loading the primary objective "promote a new paradigm" as the main clause, subsequently detailing implementation methods via the prepositional phrase "by utilizing...". This aligns with English technical writing convention where key results take precedence over procedural descriptions, ensuring immediate clarity of strategic goals while maintaining factual precision regarding methodologies.

Example 10: Source Text: 永久冻土升温融化，会**释放**可溶性有机碳或生物化学污染物到饮用水中，**破坏**污水收集和处理系统，**改变**社区排水模式，最终**影响**人类健康。

DeepSeek MT: Permafrost degradation **triggers** the release of dissolved organic carbon and biogeochemical pollutants into potable water sources, **disrupts** wastewater infrastructure, **modifies** hydrological regimes in settlements, **culminating** in adverse human health impacts.

Post-edited version: Permafrost warming and thawing can also **impact human health through** release of dissolved organic carbon or biological and chemical contaminants into drinking water supplies, **through** disruption of sewage collection and disposal systems, **and through** alteration of water drainage patterns in communities.

Analysis: The original text utilizes a verb chain "释放......破坏......改变......影响......"to depict causal processes, reflecting Chinese inherent process-focused orientation. The MT version attempts to convey this progress through parallel structure "trigger...disrupt...modify..." concluded by the participial phrase "culminating in...". However, this syntactic arrangement diminish the emphasis on the ultimate consequence "human health impacts" by requiring readers to process multiple intermediate effects first. Our post-edited version establishes "impact human health" as the grammatical nucleus at the outset, then explicitly enumerates three mechanistic pathways using prepositional constructs "through...". This syntactic reorganization prioritizes the critical outcome of English technical discourse conventions while deploying nominalizations "release of dissolved organic carbon or biological and chemical contaminants" "disruption of sewage collection and disposal systems" and "alteration of water drainage patterns in communities" to concisely package procedural details without subordinate clauses.

## 2.5 Proximity Principle of English Attributive Ordering

In English, when multiple attributives modify a noun, they are ordered based on their logical proximity to the noun – the closer the relationship, the closer the attributive is placed to the head noun.

Example 11: Source text: 固定式钢轨闪光焊机的研发成功填补了国内**大型直流钢轨闪光焊**的技术空白

DeepSeek MT: The successful development of the fixed rail flash welding machine has filled the domestic technological gap in **large-scale DC rail flash welding**.

Post-edited version: The successful development of the fixed rail flash butt welding machine filled the technology gap for **large rail DC flash butt welding** in China.

Analysis: For the underlined phrase "大型直流钢轨闪光焊" in the source text, the Deepseek translation "large-scale DC rail flash welding" positions the term "DC" immediately adjacent to the head noun "flash welding". This violates the English proximity principle that the more essential a modifier, the closer it positions to the noun, resulting in insufficient prominence of core features and structural diffuseness. The post-edited version "large rail DC flash butt welding" optimizes modifier hierarchy through strict ordering: the technical qualifier "DC" directly precedes the head noun "flash butt welding"; the application target "rail" occupies the medial layer, and "large-scale" serves as the outermost modifier. This reorganization enables immediate recognition of the core concept (DC flash welding), fully conforming to English technical writing conventions.

Example 12: Source text: 实现了南极"着地冰崖"**崩解过程**的**厘米级三维精细监测**

DeepSeek MT: Achieved **centimeter-level 3D fine monitoring** of the calving process of the Antarctic grounded ice cliff.

Post-edited version: Achieved **3D fine monitoring** of Antarctic grounded ice cliff calving **at centimeter-level precision**.

Analysis: DeepSeek positions the secondary precision modifier "centimeter-level" before "3D fine monitoring", causing the key attributes "3D fine" to be weakened. This violates the "core attributes adhere to core nouns" principle. The post-edited version places the core technical feature "3D fine" immediately adjacent to the head noun "monitoring", forming an indivisible technical unit "3D fine monitoring", while demoting the precision specification to a postpositional prepositional phrase "at centimeter-level precision". This structural adjustment highlights the core status of "3D fine monitoring" while converting "centimeter-level" into supplementary information, rigorously complying with IEEE 2700-2017 measurement standards regarding parameter prioritization and embodying technical English precision.

## 3. Conclusion

This study systematically addresses recurring Chinese-English linguistic differences in new energy translation, identifying five common challenges: free-translating Chinese imagistic expressions, streamlining linguistically redundant elements, shifting narrative perspective from third- to first-person, restructuring temporal sequences to align with English conventions, and rearranging the attributive modifiers. Based on these perspectives, we explore post-editing strategies for C-E machine translation by Deepseek. Given rapid advancements in network technologies, AI has demonstrated effective in enhancing syntactic integrity and terminological precision, yet remains inadequate for resolving these deep-seated language differences, with persistent errors necessitating post-editing to ensure quality in cultural-linguistic dimensions. Concurrently, MT evolution imposes heightened demands on post-editors, mandating technical translators to develop profound understanding of Chinese-English linguistic specificities and continuously enhance human-AI collaborative strategies.

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