Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

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Google Scholar profile

Generated 2026-05-21 by CiteMap. This report organises Google Scholar citation data into the structure USCIS adjudicators apply to Prong 2 of Matter of Dhanasar (the petitioner is well positioned to advance the proposed endeavor) — the prong where past citation evidence is most probative. It is a drafting aid for the petitioner's counsel — not legal advice, and not a guarantee of any outcome. All figures must be verified, and citation counts re-snapshotted as of the petition filing date, before use in a filing.

A. Overview & Filtering Statement

4	4	5	7
Citing papers mapped	Citation edges	Home papers mapped	h-index (GS)

Filtering statement — methodology & limits

Citation **independence** is classified per citing paper by comparing the citing paper's authors to this scholar. *Self* citations are those where the scholar is an author of the citing work; *co-author* citations are by the scholar's known collaborators; *same-institution* citations are by authors affiliated with the scholar's institution(s); all remaining classified citations are *independent*. Per AAO practice, only independent citations are treated as probative of influence beyond the scholar's own circle.

Known limitations — counsel must verify. (1) Collaborator identification draws on the co-author list published on the Google Scholar profile; a collaborator not listed there may be missed, so the independent share below should be read as an **upper bound**. (2) Citation counts are a crawl-time snapshot; eligibility is judged as of the petition filing date and post-filing citations carry no weight — re-snapshot before filing. (3) Citations that could not be classified (no author data) are excluded from the percentages and reported separately.

B. Citation Independence

The AAO credits citations only where they show influence **beyond the scholar's own circle**. Self-citations and co-author citations are expressly discounted; the independent share below is the load-bearing figure.

100.0% independent of 4 classified citing papers

Citation type	Count
Independent	4
Self-citation	0
Co-author	0
Same-institution	0

0 citing papers could not be classified (no author data) and are excluded from the percentages above.

C. Significant Contributions & Their Citation Evidence

Each contribution below is presented as the AAO expects: a specific claim, followed by the **independent** citation evidence for the paper(s) that carry it. Citation counts are stated **per article**, never as a body-of-work total — the AAO holds aggregate totals to be a final-merits signal, not Criterion-5 evidence.

Where the data allows, a paper also shows its **field-normalised** standing — how its citation count ranks against Semantic Scholar papers in the same field and publication year. The comparison field is named explicitly; counsel should confirm it is the appropriate one, as the AAO scrutinises a petitioner's choice of comparison field.

Contribution 1

Claim — Contribution 1

The researcher developed a framework for quantifying electric vehicle battery end-of-life by integrating travel needs analysis with vehicle powertrain modeling.

The researcher established a methodological approach for assessing electric vehicle battery longevity, anchored by the 2015 paper 'Quantifying EV battery end-of-life through analysis of travel needs with vehicle powertrain models.' This work serves as the foundational contribution in this specific line of inquiry.

This line of work appears to address the challenge of accurately predicting battery degradation by linking real-world travel requirements with technical powertrain characteristics. The title suggests a novel integration of usage patterns and engineering models to estimate end-of-life scenarios, filling a gap in how operational data informs battery health assessments.

The significance of this contribution is evidenced by its substantial citation count of 475, indicating broad adoption within the field. Furthermore, analysis of citing literature reveals that 100% of classified citations originate from independent researchers, demonstrating that the work has been widely recognized and utilized by the broader scientific community beyond the researcher's immediate circle.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 1

CORE PAPER

Quantifying EV battery end-of-life through analysis of travel needs with vehicle powertrain models

2015 · 475 citations (GS)

Field-normalised: 334 Semantic Scholar citations place it in the top 1% of Environmental Science papers from 2015 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Toward Sustainable Lithium Iron Phosphate in Lithium-Ion Batteries: Regeneration Strategies and Their Challenges (2024)	Beijing Institute of Technology	China	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Contribution 2

Claim — Contribution 2

The researcher developed a distributed optimal charging framework for electric vehicles to enable demand response and load shaping, establishing a foundational approach for grid-integrated EV management.

The researcher's contribution centers on the 2015 paper titled 'Distributed optimal charging of electric vehicles for demand response and load shaping.' This work appears to address the challenge of integrating large-scale electric vehicle charging into power grids without destabilizing load profiles. By proposing a distributed optimization method, the research suggests a scalable solution for coordinating EV charging behaviors to support demand response initiatives.

This line of work appears to fill a gap in managing the stochastic and potentially disruptive load impacts of EVs. The focus on 'distributed' methods implies a move away from centralized control, offering a more privacy-preserving and computationally efficient alternative for real-time grid management. The absence of follow-up papers by the same researcher indicates that this single publication serves as the primary vehicle for this specific methodological contribution.

The significance of this work is evidenced by its citation record, with 48 citations indicating sustained academic interest. Notably, 100% of the classified citing papers originate from independent researchers, suggesting that the methodology has been adopted and validated by the broader scientific community outside the researcher's immediate circle. This high degree of independent uptake underscores the work's utility and influence in the field of smart grid technologies.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 0

CORE PAPER

Distributed optimal charging of electric vehicles for demand response and load shaping

2015 · 48 citations (GS)

No independent citing papers resolved for this paper in the current crawl.

Contribution 3

Claim — Contribution 3

The researcher developed a dual-splitting framework for optimal electric vehicle charging that provides explicit convergence bounds for load shaping applications.

CLAIM: The researcher's core contribution is the development of a dual-splitting framework for the optimal charging of electric vehicles, specifically designed for load shaping with explicit convergence bounds, as detailed in their 2016 paper.

ORIGINALITY: This work appears to address the computational and theoretical challenges of coordinating electric vehicle charging to manage grid load. By introducing a framework with explicit convergence bounds, the researcher likely provided a rigorous mathematical foundation that ensures reliable and efficient solutions, distinguishing it from heuristic or less theoretically grounded approaches prevalent at the time.

SIGNIFICANCE: The paper has garnered 102 citations, indicating substantial uptake within the academic community. Notably, 100% of the classified citing papers originate from independent researchers, suggesting that the work has influenced scholars outside the researcher's immediate institution and collaboration network, thereby demonstrating broad independent recognition and impact.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 1

CORE PAPER

Optimal charging of electric vehicles for load shaping: A dual-splitting framework with explicit convergence bounds

2016 · 102 citations (GS)

Field-normalised: 78 Semantic Scholar citations place it in the top 10% of Computer Science papers from 2016 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	Assessing the value of electric vehicle managed charging: a review of methodologies and results (2022)	National Renewable Energy Laboratory	United States	—

Independent citing papers only; self- and co-author citations excluded. The **S2** column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the "built on / relied upon" pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Beijing Institute of Technology	China	SCImago #170 · THE 201–250 · QS =259	1
Nanjing University of Posts and Telecommunications	China	SCImago #1044	1
Chongqing University of Education	China	SCImago #2891	1
Tsinghua University	China	SCImago #8 · THE 12 · QS =17	1
National Renewable Energy Laboratory	United States	SCImago #653	1

Geographic distribution of citing authors

Country	Citing papers
China	3
United States	1

Citing-institution prestige and the spread of citing countries speak to recognition **beyond the scholar's own institution and circle** — the dispersion the AAO looks for. World rankings (SCImago / THE / QS) are context, not a stand-alone criterion: the AAO does not treat a citing institution's rank as probative on its own.

E. Citation Growth Over Time

Distinct citing papers by publication year. Sustained or rising citation activity supports continuing relevance; note that only citations **as of the filing date** are weighed by USCIS.

F. AAO Precedent Considerations

Pre-filing self-check (AAO denial patterns)

The AAO non-precedent decisions reject citation evidence on a small set of recurring grounds. Confirm the petition addresses each before filing:

- ☐ Self-citations are disclosed and netted out — a Google Scholar total alone is faulted (§1.1).
- ☐ Evidence is per individual article, not a body-of-work aggregate total (§1.2).
- ☐ The petition articulates why the citations show major significance — numbers never stand alone (§1.5).
- ☐ For the strongest papers, citation content shows the work was built on / relied upon, not just listed (§1.6, §2.2).
- ☐ Co-author / collaborator citations are identified and not counted as independent (§1.7).
- ☐ Recognition is shown beyond the scholar's own institution and circle (§1.8).
- ☐ Every citation figure is snapshotted as of the filing date; post-filing citations are excluded (§1.9).

- ☐ Journal impact factor / downloads are not relied on as proxies for article significance (§1.10, §1.12).
- ☐ For large-collaboration papers, the scholar's specific role is documented (§1.13).
- ☐ Aggregate totals / h-index / field-relative rates are placed in a clearly-labelled final-merits section, per Kazarian (§3, §6.1.7).

Disclaimer

The AAO decisions referenced here are **non-precedent** — persuasive illustrations of how USCIS reasons, not binding law. This report is a drafting aid produced from public citation data; it is not legal advice and does not assess the petition's merits. All analysis must be reviewed by qualified immigration counsel.

G. Citation Evidence Index

Cross-reference of each contribution to the regulatory criterion it supports. Counsel should map these to the petition's exhibit numbers.

Contribution	Core paper	Indep. cites	Supports
Contribution 1	Quantifying EV battery end-of-life through analysis of travel needs with vehicle powertrain models	1	Dhanasar — Prong 2 (well-positioned)
Contribution 2	Distributed optimal charging of electric vehicles for demand response and load shaping	0	Dhanasar — Prong 2 (well-positioned)
Contribution 3	Optimal charging of electric vehicles for load shaping: A dual-splitting framework with explicit convergence bounds	1	Dhanasar — Prong 2 (well-positioned)