

Conference Report

CONCEPTUALISING INTERNATIONAL ENERGY LAW:

Shaping the Future Amidst Transition in a VUCA World



25 September 2025

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ABOUT THE CONFERENCE

The Centre for International Law (CIL) at the National University of Singapore organised a one-day, abstract-based conference entitled "Conceptualising International Energy Law: Shaping the Future Amidst Transition in a VUCA World" on Thursday, 25 September 2025, in Singapore. Bringing together academics, researchers, practitioners and students, the conference provided a timely platform for exploring the evolving role of international energy law in driving a just and equitable transition amidst today's volatile, uncertain, complex, and ambiguous (VUCA) world.

The accelerating triple planetary crisis of climate change, biodiversity loss and pollution calls for an urgent, equitable, and just transition away from fossil fuels; yet, deepening geopolitical conflicts, global trade wars, and increasing socio-economic changes significantly impede the international cooperation and collective action required to drive this critical shift. In light of this global landscape, the conference aimed to examine how international energy law can and should be conceptualised to navigate the energy trilemma – balancing the need for energy security, environmental sustainability, and energy equity. One of the central premises of the conference was that there is a need for greater conceptual clarity regarding international energy law, its scope, and principles, so that it can play a more purposeful role in guiding the energy transition.

The conference comprised three substantive panel sessions, preceded by welcome and keynote addresses. The conference concluded with a closing session which sought to consolidate key takeaways and inputs. This report aims to capture the key themes, discussions and insights from the conference.



Speakers and the CIL Energy Law and Policy Team

WELCOME ADDRESS



Denise Cheong

The conference opened with a welcome address delivered by **Denise Cheong**, Head of the Energy Law and Policy Programme at CIL.

The address traced the origins of the conference theme, conceived during a time of intensifying geopolitical tensions and economic disruptions.

It highlighted that international energy law has a key role to play in advancing the energy transition while managing the energy trilemma—the need to balance energy security, environmental sustainability, and energy equity. However, despite its growing importance, the field remains ambiguous, with debates over its definition, scope, priorities, and relationship to energy governance frameworks. As such,

greater conceptual clarity is needed so that international energy law can play a more effective and purposeful role in today's complex and volatile world.

This welcome address introduced the Energy Law and Policy Programme at CIL, which has a broader focus, building on what was formerly the Nuclear Law and Policy Programme. Its research areas include the conceptualisation and development of international energy law and the role it can play in advancing the clean energy transition. The conference builds on CIL's ongoing work to strengthen the understanding of international energy law and its role in shaping a just, secure, and sustainable global energy future.

She concluded her address by noting the growing scholarly interest in the field of international energy law as reflected by the overwhelming response to the conference's call for abstracts and emphasised the conference's role in fostering the exchange of ideas and insights among participants.

KEYNOTE ADDRESS



Raphael Heffron

In his keynote address, entitled "Justice as an Agent of Change in International Energy Law", Raphael Heffron, Professor and Dean, College of Law, Abu Dhabi University, highlighted the transformative role of "justice" in shaping the field of international energy law and driving the energy transition. Tracing its evolution from a peripheral concept to a core principle embedded in global energy governance, he highlighted how energy justice now informs international policy frameworks.

Noting that the key objective of international energy law is to ensure justice and "to make the world a better place", he highlighted five key principles of energy justice, namely distributive, procedural, restorative, recognition, and

cosmopolitan justice. He emphasised the need for all these principles to work in consonance to balance risk, reward, and responsibility among governments, companies, and civil society. He explained how these principles must guide energy infrastructure development, as well as governance systems, to ensure no community is left behind.

The keynote address also introduced his "JUST" framework, which comprises an interdisciplinary lens for analysing energy issues through Justice, Universality, Space, and Time, with a focus on inclusivity, geographical scope and context, and temporal alignment with policy objectives.

His keynote address called for a data-driven, interdisciplinary approach toward scholarship in international energy law, incorporating science, economics and social data. He concluded by urging scholars to consider the real-world impact of their research, positioning justice not merely as a normative goal but as the foundation for a sustainable and equitable energy future.

SESSION I: Global Perspectives Contributing to the Development of International Energy Law

Panel lead: Elena Cima, Senior Lecturer, University of Geneva

- 1. Five Stories of a Fragmented Discipline: Why Conceptualizing International Energy Law Matters Now
 - Elena Cima, Senior Lecturer, University of Geneva
- 2. The Making of International Energy Law
 Temitope Tunbi Onifade, Lecturer, University of Bristol
- 3. Interrelationships between International Energy Law and Global Energy Governance From the Perspective of Tortious Harms
 Ranchun Wang, PhD candidate, University of Groningen
- 4. Between Energy Security and Trade Liberalization: The Intersection of International Trade Law and International Energy Law in an Era of Insecurity Meng Mandy Fang, Assistant Professor, City University of Hong Kong
- 5. The Role of International Human Rights Law in Reinforcing and Shaping International Energy Law
 - Zeynab Malakouti, Visiting Research Fellow, National University of Singapore

Elena Cima opened the session with her presentation which discussed the fragmented nature of international energy law through a series of case-based "stories": (i) the International Tribunal for the Law of the Sea's (ITLOS) recognition of greenhouse gas emissions as pollution of the marine environment under the United Nations Convention on the Law of the Sea (UNCLOS); (ii) the case of Urgenda Foundation v. State of the Netherlands requiring the Netherlands to do more to reduce its emissions and subsequently the case of RWE v the Netherlands, which blamed the Netherlands for doing too much via its decision to phase out coal and acting against the interest of foreign investors; and (iii) an effort to reform World Trade Organisation (WTO) subsidies rules from a sustainability perspective i.e., to make it harder to subsidise fossil fuels but easier to subsidise green energy, which might be contrary to existing investment rules that may lead to countries phasing out fossil fuel subsidies risk being sued by foreign investors. She argued that the fragmentation of international energy law is an obstacle to shaping it as a distinct discipline. Such fragmentation is manifested through the "shallow layer" of fragmentation of rules, courts and tribunals, and institutions; and the "deeper layer" of fragmentation in disciplines and areas of international law, communities, languages and approaches. She concluded with a call for addressing these deeper divides to develop international energy law as a coherent discipline.



(L-R) Elena Cima, Temitope Tunbi Onifade, Ranchun Wang, Meng Mandy Fang, Zeynab Malakouti

The second presentation by **Temitope Tunbi Onifade** identified the Organisation of Petroleum Exporting Countries (OPEC), the International Energy Agency (IEA), and the International Renewable Energy Agency (IRENA) as the three most influential organisations that have shaped global energy governance, specifically in the areas of energy security, energy transition and energy justice. Relying on the "Theory of Institutional Bypass", he explained how the IEA was established to challenge OPEC's domination and in the case of IRENA, it was established in response to OPEC's and IEA's focus on oil rather than environmental interests. In addition, the IRENA Coalition for Action (ICA) emerged as another "bypass" from IRENA to engage with non-state actors, though it faces challenges related to the inclusion of developing countries. In conclusion, he posed the question of whether the international community requires another institution to "bypass" the existing ones in order to better advance an inclusive energy transition. Following his presentation, Elena Cima noted that the role of institutions within international energy law remains largely underexplored, despite their significant influence.

Ranchun Wang delivered the third presentation, which explored how the traditional parameters of tort law – causation, proximity, and foreseeability – cannot sufficiently address cumulative, transboundary harms arising from energy activities with long-lasting consequences. The presentation proposed that international energy law should evolve from a state- and investor-centric framework to one that also embeds accountability, justice, and prevention of harms. In this regard, there is a need to move beyond the compensatory model towards a preventive and deterrence-based one, integrating tort law principles such as duty of care, proportionality and foreseeability, to strengthen accountability and inclusivity, embed justice in energy transitions and foster coherence across fragmented regimes.

The fourth presentation by **Meng Mandy Fang** analysed recent WTO disputes: *United States v. India* on solar measures and *Russia v. European Union* on energy diversification, examining how the "short supply" exception under Article XX(j) of the General Agreement on Tariffs and Trade (GATT) has been interpreted. She argued that an overly restrictive interpretation has been adopted, which does not adequately account for the evolving geopolitical landscape and fragilities in the global supply chain. International energy law principles, especially energy security and reliability, can shed light on understanding "short supply", and a more security-oriented interpretation of "short supply" is much needed to better align international trade and energy regimes.

The final presentation by **Zeynab Malakouti** was based on the premise that the international human rights regime, one of the older regimes in international law, can inform the development of international energy law due to its strong foundation as a distinct regime. International energy law, as a developing field, has had a stronger focus on economic dimensions than social and human rights dimensions. In analysing the intersections between human rights and energy, she noted that there is no formal right to energy, though it is important and interlinked with Sustainable Development Goal 7. The presentation identified five dimensions of energy justice — distributive, procedural, restorative, recognition, and cosmopolitan justice, which incorporate human rights in the energy context. Through an analysis of national litigation and international advisory opinions, the presentation advocates for a stronger emphasis on the intersection between human rights and energy justice, which could potentially strengthen and guide the development of international energy law.

Q&A Session

This session fostered a rich discussion on the interdisciplinary perspectives and challenges of conceptualising international energy law within a fragmented legal landscape. Questions from the participants focused on whether fragmentation should be viewed solely as a weakness or also as a potential source of innovation and adaptability. In response, Elena Cima and Temitope Onifade agreed that while fragmentation can hinder coherence, it also allows for a diversity of approaches and institutional experimentation across energy governance regimes.

Participants also raised questions on the need for clearer allocation of responsibility among states, corporations, and investors in addressing transnational energy harms, as well as the potential role of tort law and human rights frameworks in bridging accountability gaps. Overall, the discussion highlighted the importance of global perspectives and interdisciplinary approaches in advancing the global energy transition.



(L-R) Elena Cima, Meng Mandy Fang, Temitope Tunbi Onifade, Ranchun Wang, Zeynab Malakouti

SESSION II: Regional Perspectives Contributing to the Development of International Energy Law

Panel Lead: Hao Zhang, Associate Professor, The Chinese University of Hong Kong

- 1. Regional Pathways in the Evolution of International Energy Law: Norm Creation, Governance Models, and Global Influence
 - Hao Zhang, Associate Professor, The Chinese University of Hong Kong
- 2. The Transformative Power of Energy Transition in the European Union Etienne Durand. Lecturer. University of Essex
- 3. Navigating International Energy Law Obligations Amidst the Dual Dilemma of Disappearance and Damage in Caribbean Small Island Developing States Alicia Phillips, PhD researcher, Université de Pau et des Pays de l'Adour
- 4. Reclaiming Agency: Indigenous Energy Sovereignty and the Limits of International Law in Africa and Latin America
 - Olalekan A. Bello, Lecturer, University of Leicester

The first presentation of the session was by **Hao Zhang**, who examined the regional pathways shaping international energy law, arguing that it is a dynamic and evolving field. He stated that regional blocs can serve as crucial laboratories for innovations, demonstrating how legal frameworks can be proactively used to manage complex transitions. These models of deep integration and innovative governance offer valuable insights for broader application. Zhang highlighted the limitations of market-centric models that prioritise investor rights over justice, sustainability, and equity, particularly for indigenous and local communities. Emphasising that legitimacy in international energy law requires engagement with justice and decolonisation, the presentation explored how tensions between domestic development imperatives and global environmental obligations create multi-scalar challenges that require innovative governance models to re-examine foundational legal concepts such as sovereignty, consent, and core regulatory principles.

The second presentation by **Etienne Durand** explored how the European Union (EU) energy transition has transformed EU law itself. He argued that energy transition not only drives environmental change but also influences EU fundamental principles, decision-making processes, integration dynamics and power relations in EU governance. Using *Poland v Commission* (OPAL pipeline) as a case study, he illustrated the legal recognition of the binding effect of the principle of solidarity, which requires EU Member States to act in a spirit of mutual interest, and the reshaping of the principle of subsidiarity in response to cross-border interdependence. He suggested that the energy transition has reoriented decision-making processes from hierarchical (top-down) structures toward more decentralized (bottom-up) modalities. He argued that climate neutrality is a meta-objective, while strategic autonomy is an implicit objective of the European integration process. In assessing the evolving individual-energy relationships, he places energy transition (where consumers are active energy participants) in the middle of market liberalization and climate justice, where individuals have legal standing to hold governments and corporations accountable.



(L-R) Hao Zhang, Etienne Durand, Alicia Phillips, Olalekan A. Bello

The third presentation, by **Alicia Phillips**, presented the perspective of the Caribbean Small Island Developing States (CSIDS) and their concerns surrounding damages and disappearance due to climate change. She suggested that from an energy perspective, CSIDS as a region could make the switch to renewable energy in policy and law with international support, attract investors through international energy law, pool renewable energy capacities to forge a coordinated approach and enhance interconnectivity. She argued that international energy law needs to evolve to accommodate the existential concerns of CSIDS, by ensuring that "no country is left behind" and have this framed as a legal obligation, enshrining the cosmopolitan justice principle of duties going beyond national borders as an international legal obligation, and supporting the Caribbean Community (CARICOM) as a potential enforcer for international energy law obligations. Ultimately, international energy law should incorporate diverse perspectives in decision-making processes applying the recognition justice principle, and redefine core concepts such as energy sovereignty, state accountability and responsibility, as well as sustainable development, in light of the transition to renewable energy.

The last presentation by **Olalekan A. Bello** called for a reclamation of indigenous agency, using African and Latin American case studies, and highlighted how current energy transition narratives risk recreating colonial patterns of extraction and marginalisation of indigenous communities. In light of indigenous conceptions of energy as relational and reciprocal, and sovereignty as autonomy over energy resources and governance, he argues for international energy law to facilitate indigenous energy sovereignty. He argues that international energy law must adopt a pluralistic and decolonial approach, one that recognises indigenous legal systems and indigenous knowledge, interprets free, prior and informed consent as genuine consent and embraces a shift to relational governance that ensures the participation of indigenous communities. He also proposed institutional pathways towards reform, including the establishment of regional energy courts with indigenous judges and the incorporation of a binding complaints mechanism under the UN Declaration on the Rights of Indigenous Peoples. He concludes by stating that reclaiming agency is a condition for justice, where a green transition without justice is another form of colonialism.

Q&A Session

This discussion reinforced the need for a more inclusive and polycentric evolution of international energy law. Participants raised questions on how governance frameworks can effectively regulate non-state actors, multinational corporations, and empower indigenous communities. Panellists responded by acknowledging how the state-centric foundations of international energy law often cause the legal invisibility of non-state actors and marginalised communities. Hao Zhang underscored the growing influence of private and quasi-state entities, emphasising the need to ensure that non-state actors do not become *de facto* regulators due to regulatory vacuums.

One of the key questions raised during the discussion concerned how the EU's climate neutrality goals could be elevated to a "meta-level" objective guiding the broader EU legal order. In response, Etienne Durand explained how climate neutrality has increasingly guided EU policy coherence, serving as a unifying principle that shapes law and governance.

The session addressed regional perspectives and experiences, ranging from the EU's evolving legal frameworks to the concerns of the CSIDS. The discussion reinforced the importance of an inclusive, bottom-up approach in shaping the future of international energy law.



(L-R) Hao Zhang, Olalekan A. Bello, Alicia Phillips, Etienne Durand

SESSION III: Conceptualisation of International Energy Law

Panel lead: Kaisa Huhta, Associate Professor, University of Eastern Finland

- 1. The Why and How of Conceptualising International energy law Kaisa Huhta, Associate Professor, University of Eastern Finland
- 2. Theorizing Energy Law as a Field of Law
 Seita Vesa, Professor, University of Eastern Finland
- 3. Reshaping International energy law for the Just Transition: Bridging Theory and Practice in a Changing Energy Order

 Tedd Moya Mose, Postdoctoral Research Fellow, Oxford Martin Programme on Integrating Renewable Energy
- 4. Conceptualising International energy law: Insights from International Environmental Law and its Influence in the Governance of the Energy Sector?

 Melanie Schneider, DPhil candidate in Law, University of Oxford
- 5. Systematic Literature Review of International energy law
 Mohammad Hazrati, Senior Research Fellow, NUS Centre for International Law &
 Nivedita S, Research Fellow, NUS Centre for International Law

The first presentation by **Kaisa Huhta** addressed why and how energy law must be conceptualised as a legal discipline. She observed that theories shape how scholars and practitioners understand the field, and that many legal disciplines emerge from practice before gaining academic recognition through specialised courses, academic writings, and theoretical frameworks. For energy law, she stressed that legal concepts only become doctrine once recognised and developed by professionals and scholars. She added that it is a communal effort requiring discussion, dialogue, and disagreement to map out the similarities and differences and better understand the unique characteristics of energy law.

The second presentation by **Seita Vesa** examined how insights from special jurisprudence literature can enhance the coherence and theoretical foundations of energy law as a distinct field of law. To qualify as an autonomous legal field, special jurisprudence requires three criteria to be met: the existence of legal materials, social recognition, and underlying unity. Energy law struggles to meet these criteria, giving rise to perceptions of fragmentation. The presentation observed that building theoretical foundations requires dialogue, critique, and collaboration, with academics playing a key role in this process.



(L-R) Kaisa Huhta, Seita Vesa, Tedd Moya Mose, Melanie Schneider, Mohammad Hazrati, Nivedita S

The third presentation by **Tedd Moya Mose** advocated a principle-based approach to reshaping international energy law in support of a just and equitable transition. Against the backdrop of renewable energy growth and concerns of developing states, he calls for a principle-based approach. He identified seven core principles underpinning international energy law: national resource sovereignty, environmental protection, sustainability, energy access, energy justice, innovation, and sustainable finance. He suggested that adaptive legal frameworks incorporating soft law, human rights, and climate finance can help to strike a balance between the need for certainty and flexibility.

The fourth presentation by **Melanie Schneider** discussed the difficulties of balancing the energy trilemma in today's volatile, uncertain, complex, and ambiguous (VUCA) world. She explained that international energy law is shaping state sovereignty (over the energy sector) by requiring alignment with environmental protection commitments. The presentation examined how international environmental norms influence national energy governance, and in doing so, contribute to clarity on the scope, priorities, and structure of international energy law. It posited that international energy law derives its coherence, utility and orientation through its legal entanglements with other fields most notably international environmental law.

The last speakers, **Mohammad Hazrati** and **Nivedita S**, presented findings from the first phase of a Systematic Literature Review of international energy law. Using transparent search criteria and reproducible methods to minimise bias, this review involved an analysis of 38 journal articles published between 1 January 2000 and 19 August 2005. Findings revealed that "international energy law" was the most commonly used term (50%). Only some articles address the question of how the term used is defined or explained (18%). Likewise, only a few articles discuss sources of international energy law (13%) (such as bilateral and multilateral treaties), and address the extent to which international energy law overlaps with other branches of international law (13%), such as human rights law, environmental law, trade and investment law, etc. Phase 2 will extend the analysis, and once both phases are complete, the sample size and databases may be expanded to ensure broader coverage.

Q&A Session

During this session, participants asked about the interrelationships between the three criteria recognised by special jurisprudence literature for conceptualising an area of law. Kaisa Huhta emphasised that coherence is one of the values of law and is needed for something to be legitimate. It is one of the values already identified in the basic rule of law. For something to be legitimate, whether it is a norm or a legal system, it also needs to be coherent.

On the relationship between domestic energy law and international energy law, Tedd Moya Mose observed that it is domestic state action that largely shapes the development of international law. This raises questions at the international level about who holds the authority to create law and what its sources are. Divergences arise from the adoption of monist or dualist approaches, producing fragmented outcomes, while the activities of multinational corporations further blur the boundaries between domestic and international domains. A further challenge is that international energy law often remains siloed from climate and environmental law. Although law is inherently fragmented across all levels, the challenge lies in identifying which principles of domestic energy law can be applied to international energy law to foster consistency across jurisdictions.



(L-R) Kaisa Huhta, Seita Vesa, Mohammad Hazrati, Melanie Schneider, Nivedita S, Tedd Moya Mose

CLOSING SESSION

- **1. Denise Cheong,** Head, Energy Law and Policy, Centre for International Law, National University of Singapore
- 2. Raphael Heffron, Professor and Dean, College of Law, Abu Dhabi University
- 3. Kaisa Huhta, Associate Professor, University of Eastern Finland
- 4. Elena Cima, Senior Lecturer, University of Geneva
- 5. Hao Zhang, Associate Professor, The Chinese University of Hong Kong
- **6. Mohammad Hazrati**, Senior Research Fellow, Centre for International Law, National University of Singapore

The closing session was moderated by **Denise Cheong** and **Mohammad Hazrati**, who invited the speakers to provide their reflections on the day's discussions.

Elena Cima reflected on key questions that need to be answered, such as the unique features of the energy sector, questioning to what extent these features require tailored rules or the adaptation of existing ones; whether there is a need for one international organisation, or if the existing institutions are enough. She highlighted the interplay between domestic and international legal systems, noting that only some domestic principles eventually migrate from the domestic to the international level, while other principles from the international legal order may not transcend to the domestic level, creating uncertainty in their application. She also pointed out the inherent fragmentation present in international energy law and how some forms of fragmentation can be an obstacle, making it important for scholars to identify and distinguish such fragmentation before beginning work to shape international energy law.

Hao Zhang shared that there are regional experimentations that provide important inroads to shaping international energy law. Many innovations and regulatory developments are occurring at the regional level and within the national context. He noted the relationship between coherence and fragmentation. On the one hand, fragmentation reflects the current situation arising from the historical reliance on energy systems and years of regulatory developments. However, fragmentation can be built upon. On the other hand, coherence does not mean identical rules among various countries but rather, it points to a framework that enables the recognition of challenges arising from the energy trilemma. He noted that, owing to the context-specific nature of problems such as affordability and social justice, coherence in this sense allows researchers from different regions to address these issues. He concluded by stressing the importance of continuing this dialogue.

Kaisa Huhta pointed out that there has been a significant focus on the problems in terms of overall threats to the law-based global order and its reflections in the energy sector - fragmentation, a lack of understanding of the field's foundations, a lack of conceptualisation, gaps in theoretical work and the pragmatic orientation of this field. However, the significant gap between existing research and scholars' understanding international energy law presents a substantial opportunity to utilise it as a diagnostic tool to acknowledge fragmentation, understand its implications for the field, and identify new directions. She highlighted the leveraging of the interdisciplinarity of energy to engage in collaboration with engineers, economists, and social scientists to adapt and develop innovative legal research methods. She also suggested conducting comparative studies between international energy law and more established fields, such as international environmental law. She noted that this is an opportune moment for energy law scholars to help shape the development of international energy law.



(L-R) Hao Zhang, Denise Cheong, Elena Cima, Kaisa Huhta, Raphael Heffron, Mohammad Hazrati

Raphael Heffron reflected on the importance of both an inclusive and just energy transition, noting that the energy sector is vital to the economy and has far-reaching impacts beyond itself. With the energy law field evolving, energy justice is becoming a clear objective. Thus, scholars must ensure that their research is coherent and employs replicable research methods across disciplines beyond law, addressing the imminent climate emergency in which we are living, as well as the energy trilemma. He ended his remarks with a call to action for the energy law community to be at the forefront of change over the next few years, ensuring that research in the field of international energy law develops coherently.

The session concluded with **Denise Cheong** recognising that international energy law clearly has a role to play in accelerating the energy transition, and that, as a discipline, international energy law really needs to step up and rise to the occasion to avoid the risk of being marginalised. In this context, the international energy law community should be pragmatic regarding next steps and avoid reinventing the wheel as time is of the essence. Collaborating with different communities to establish research key priorities and explore ways to coordinate their research would be a logical and concrete step forward. In this regard, **Mohammad Hazrati** also reiterated that clarifying the purpose of international energy law will be the key driver for its development in the coming years.

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(L-R) Lok Kok Bin, Rayson Ng, Nivedita S, Natasha Tan, Rasmika Ghosh, Denise Cheong, Mohammad Hazrati, Brendan Wang





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