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RENEWABLE ENERGY GOVERNANCE INDEX FOR LEBANON -SOLAR ENERGY

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List of Acronyms

BO Beneficial Ownership

CoE Council of Europe

CoM Council of Ministers

CSOs Civil Society Organizations

DRE Distributed Renewable Energy

ECOSOC United Nations Economic and Social Council

EDL Electricité du Liban

EIA Environmental Impact Assessments

ESIAs Environmental and Social Impact Assessments

EITI Extractive Industries Transparency Initiative

NERA National Electricity Regulatory Authority

EEG Renewable Energy Sources Act

ESF Environmental and Social Framework

ESIA Environmental and social impact assessments

EU European Union

FOE Freedom of Expression

GDP Gross Domestic Product

GDPR General Data Protection Regulation

HRW Human Rights Watch

ICCPR International Covenant on Civil and Political Rights

ID Identification

IMF International Monetary Fund

IRENA International Renewable Energy Agency

LCEC Lebanese Center for Energy Conservation

LCPS The Lebanese Center for Policy Studies

M&E Monitoring and Evaluation

MOE Ministry of Environment

MOF Ministry of Finance

MoEW Ministry of Energy and Water

MW Megawatts

NACC National Anti-Corruption Commission

NDC Nationally Determined Contribution

NECP National Energy and Climate Plans

NEEAP The National Energy Efficiency Action Plan

NEEREA National Energy Efficiency and Renewable Energy

Action

NGO Non-Governmental Organization

NREAP National Renewable Energy Action Plan

OECD Organization for Economic Co-operation and

Development

OGP Open Government Partnership

P2P Peer-to-peer

PII personally identifiable information

PPA Public Procurement Authority

PPL Public Procurement Law

PV Photovoltaic

RE Renewable Energy

UDHR The Universal Declaration of Human Rights

UN United Nations

UNCED United Nations Conference on Environment and

Development

UNDP United Nations Development Programme

UNEA United Nations Environment Assembly

UNEP United Nations Environment Programme

UNESCAP The United Nations Economic and Social Commission

for Asia and Pacific

UNFCCC United Nations Framework Convention on Climate

Change

USAID United States Agency for International Development

WB World Bank

WBG World Bank Group

Executive Summary

Lebanon's energy sector has long suffered from inefficiency, corruption, political instability and infrastructure deficiencies – cumulating to several severe electricity crises. These challenges were compounded by the country's severe financial collapse beginning in 2019, the COVID-19 pandemic and the Beirut Port explosion in 2020, where Electricite du Liban (EDL) struggled to meet the country's demand and supply for consistent power, leaving households and businesses dependent on costly private generators.

Against this backdrop, renewable energy (RE) emerged as both a necessity and am opportunity, to secure energy access, reduce reliance on imported fuels, and meet international climate commitments. Yet, Lebanon's RE sector has developed in a largely unregulated and fragmented manner. By 2022, Lebanon witnessed an unprecedented surge in decentralized solar adoption, exceeding 1,300 megawatts (MW) of cumulative installed capacity, largely financed by the private sector, while this expansion has brought short-term relief to consumers, it has also exposed deep governance gaps.

Key legal instruments exist, Law No. 462/2002 was intended to liberalize the electricity sector and establish the Electricity Regulatory Authority (ERA), that was established in September 2025 after being non-existent for more than two decades, however, the Authority is yet to be operationalized, and Law No. 318/2023 governing the production and distribution of RE, that gives new key powers and responsibilities to the ERA, with the Authority's absence when issuing this law it couldn't be effectively implemented. This Laws implementing decrees also remains pending, making the regulatory framework impossible to implement.

To address these governance challenges, this paper introduces the *Renewable Energy Governance Index for Lebanon*, a diagnostic tool based on five internationally recognized principles of good governance – Rule of Law, Transparency, Public Participation, Accountability, and Effectiveness & Efficiency. Applying 44 indicators, the Index evaluates the adequacy and alignment of Lebanon's RE framework, identifies structural gaps and highlights priority reforms.

Legal Framework Governing Renewable Energy in Lebanon

Decree No. 16878/1964; Law Establishing Électricité du Liban

Establishes EDL, granting it monopoly control over electricity generation, transmission, and distribution.

Law No. 462/2002; Electricity Sector Regulation Law

Introduces liberalization and mandates the creation of the ERA.

Decision No. 318-32/2011

Establishes the Net Metering Regulation, allowing consumers producing RE to export excess electricity to the national grid.

Decree No. 8633/2012; Net Metering Regulation

Requires Environmental Impact Assessments (EIAs) for large-scale projects, including energy and renewable energy, though enforcement is weak.

No. 244/2021 (amended by Law No. 309/2023); Public Procurement Law

The Public Procurement Law that applies to RE projects financed with public funds, under the oversight of the Public Procurement Authority.

Law No. 318/2023; Regulating Distributed Renewable Energy Production

Regulates the production and distribution of renewable energy, authorizing municipalities, private actors, and consumers to produce and sell electricity, contingent on the establishment of the ERA.

Challenges and Opportunities

Challenges

- The existence of an established ERA, however still non-operational.
- Fragmented and outdated legal frameworks;
- Lack of transparency, including the absence of a centralized RE database, limited publication of budgets, licensing information and EIAs;
- Limited public participation and consultations in the RE decision-making process;
- Weak enforcement of existing laws and decrees;
- Institutional ambiguity.

Opportunities

- International commitments such as the Paris Agreement and NDCs, create momentum for reforms and donor engagement;
- Existing legal foundations (Law No. 318/2023), if paired with an operational ERA, could unlock structured growth in DRE;
- Municipal engagement provides potential pathways to expand community solar and localized RE governance.

Recommendations

Rule of Law

Parliament

- Clarify institutional mandates to reduce overlap between EDL and MoEW.

CoM

- In collaboration with the ERA, operationalize the ERA mandated under Law No. 462/2002, to ensure sectoral oversight, licensing, monitoring, and regulatory enforcement.
- Issue implementing decrees for Law No. 318/2023.
- ERA (once operational)

- Ensure sectoral oversight, licensing, monitoring, and regulatory enforcement.
- Develop sector specific dispute resolution mechanisms.

MoEW

- In collaboration with the ERA, develop a plan to enhance public participation in the decision-making process regarding the RE sector.

Transparency

MoEW and ERA

- Publish information within a centralized digital database that enables the individual to search for specific information, provided that the published information is machine-readable, searchable, and downloadable.
- Publish procurement notices, awarded contracts and results of tenders for RE projects including Solar Energy.
- Ensure timely, accurate and purposeful publication of information, particularly prior to policy decisions or possible legal reforms that require public consultations, allowing sufficient time for public engagement.

MoF

- In collaboration with the ERA, operationalize BO disclosure obligation by establishing a public, regularly updated, searchable online register of BO of all licenses RE operators, that is accessible through an official government website.

• Parliament

- Amend Article (5) of **Law No. 28/2017**; Right to Access to Information Law, to allow public administrations to apply the public interest test when the administration has information that falls within the scope of exceptions and the public interest requires its publication.

Public Participation

Parliament

- Adopt the necessary legal framework to organize mandatory public consultations specific to the RE sector when preparing relevant laws and regulations.

MoEW and ERA

- Institutionalize stakeholder engagement relying on best practices by publishing clear timelines, objectives, and methods of contribution.
- Inform the public about the approved deadlines for working on laws and regulations related to the RE sector when preparing them.
- Provide information, whether studies, statistics or another type of information, on which to rely on the laws and regulations intended to be implemented related to the RE sector.
- Open the door for stakeholders and the public in general to participate in public consultations and submit their comments and/or suggestions on what official bodies intend to do regarding topics related to the RE sector.

Municipalities and CSOs

- Engage in RE planning processes to ensure localized inclusiveness especially from marginalized groups.

Accountability

MoEW and ERA

- Clarify mandates and publish institutional structures for key actors involved in the RE sector, to reduce overlap, eliminate confusion and improve inter-agency collaboration.
- Establish a formal effective complaints mechanism that allows citizens, CSOs, and the media to report possible acts of corruption and violations.
- Require periodic performance and financial audits of RE projects, with results published publicly.**ERA (once operational)**
 - Develop and adopt a formal Sector Integrity and Anti-Corruption Plan for the RE Sector, with measurable targets, timelines, and budget allocations.
 - Publish an Annual Integrity Report to include key accountability metrics such as, BO register compliance rates; Procurement and tender publication status; Whistleblower activity and reporting outcomes; and any remedial or institutional reforms undertaken.

Effectiveness and Efficiency

MoEW and ERA

- Clarify the relationship between the government and its agencies on the one hand and the public on the other hand by making available the necessary and relevant information about the RE sector in terms of public consultations, the method of participating in them, and how to submit proposals and their fate to the official authorities.
- Subject public employees, both appointed and elected, to periodic training to develop their capabilities on RE governance, and to evaluate their performance as individuals and as a group.
- Establish shared information platforms to track solar installation, grid integration, and investments.
- Clarify the objectives of official bodies related to the RE sector.
- Institutionalize M&E systems tied to KPIs and policy outcomes, that should be updated and published annually and publicly reviewed.

Introduction

For decades, Lebanon has suffered from long-standing issues in the energy sector, characterized by inefficiency, frequent electricity shortages, underdeveloped renewable energy (RE) resources and a widespread unsustainable reliance on imported fossil fuels ¹ to power private generators that are dispersed almost everywhere in the country, and that have been recorded to significantly harm both public health and the environment due to their high emissions and lack of regulation.

Lebanon's energy sector failings originate from deep-rooted political and economic challenges, spanning since the early 1990s over the management of the energy sector this led to a structurally deficient system with years of unsustainable policies and neglect, as a result of corruption, vested interest and mismanagement of state resources, in which no single entity of power has been held accountable for the mismanagement of the sector and its public institutions².

Add to that the outdated infrastructure, and consistent failures in implementing key reforms, all of which has further diminished the public's already-limited access to continuous and clean electricity, violating the right of Lebanon's population to electricity that undermines other secondary rights related to an adequate standard of living.

Lebanon's energy crisis has been further deepened with the onset of the severe financial collapse that began in 2019, that was described by the World Bank Group (WBG) in a report published in 2021, among the top ten, and possibly top three, worst multidimensional crises globally since the mid-nineteenth century³.

Lebanon's economic woes led to a sharp contraction in Gross Domestic Product (GDP), that was further aggravated by the COVID-19 outbreak and the August 4, 2020 Beirut Port explosion, all of which worked up to a severe currency depreciation and triple digital inflation that has eroded purchasing power⁴.

By then, Lebanon's electricity grid was managed by the only operational state-run power plant "Electricité du Liban" (EDL)⁵, that struggled to meet the country's demand and supply

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¹ Beirut Arab University, Sustainable Development Goals (SDGs), SDG7: Affordable and Clean Energy. Available at: https://www.bau.edu.lb/sdg

² A. Ahmad, Distribution Power Generation for Lebanon – Market Assessment and Policy Pathways, WBG and The International Bank for Reconstruction and Development, Washington, D.C., May 2020, page 8. Available at: http://documents1.worldbank.org/curated/en/353531589865018948/pdf/Distributed-Power-Generation-for-Lebanon-Market-Assessment-and-Policy-Pathways.pdf

³ WBG – Middle East and North Africa Region, Lebanon Economic Monitor, Lebanon Sinking (To the Top 3), 2021. Available at: https://www.worldbank.org/en/country/lebanon/publication/lebanon-economic-monitor-spring-2021-lebanon-sinking-to-the-top-3

⁴ WB, Lebanon Economic Monitor: The Normalization of Crisis is No Road for Stabilization, Washington, DC, 2023, page 8. Available at: https://www.worldbank.org/en/country/lebanon/publication/lebanon-economic-monitor-spring-2023-the-normalization-of-crisis-is-no-road-for-stabilization

⁵ EDL, Lebanon's public electricity company, was established in 1964, pursuant to Decree No. 16878 dated July, 10, 1964. This decree designated EDL as a public institution with an industrial and commercial vocation, responsible for the generation, transmission and distribution of electricity in Lebanon. Available at: http://77.42.251.205/LawView.aspx?opt=view&LawID=244911

for consistent power⁶, which led to daily outages that would sometimes last up to twenty hours each day⁷, a significant shift from the period between 1990 to 2019, where EDL has resorted to rationing electricity, providing residents with twelve to twenty-one hours of electricity per day, depending on the region, with more severe rationing in areas further away from the Beirut capital⁸.

To cope, many households and businesses were forced to rely on private generators that has been proven to be very harmful to public health and the environment. By the end of 2020, a growing number of households, businesses, and institutions have turned to RE, particularly solar photovoltaics, as an alternative source for electricity.

In 2021, there was a nationwide blackout, again triggered by fuel shortages resulting from depleted foreign reserves, shutting down the country's two main power plants, coupled with chronic infrastructure deficiencies and political instability, EDL could hardly provide more than two hours of electricity a day⁹, all of which have culminated one of the most severe energy crises in the country's history¹⁰.

As of 2023, EDL was able to provide only 1 to 3 hours of electricity per day in most areas, and according to the World Bank (WB), the accumulated losses of EDL exceeded USD 40 billion between 1992 and 2020, equivalent to 43% of the public debt. This decline in state-supplied electricity forced over 90% of the population to depend on private generators, leading to severe environmental, health, and financial consequences. The energy sector became a fiscal black hole, incapable of recovery without structural reform and external support.

Consequently, in 2024, EDL has shut down on multiple instances, usually from fuel shortages¹¹. These instances since 2019, have undermined the right to access electricity as a basic human right to have an adequate standard of living that includes everyone, without discrimination, to sufficient, reliable, safe, clean, accessible, and affordable electricity. This right is critical to ensuring other basic rights, that includes but not limited to, the right to health, housing, water, and education¹².

As a response, from 2020 to 2023, with the inability of state institutions to provide basic services has pushed individuals, municipalities, non- governmental organizations (NGOs), and the private sector to invest in decentralized, off-grid solar systems and out of necessity to

⁷ A. Rasmi, Why Lebanon is Having a Surprising Solar Power Boom, Time, March 2, 2023. Available at: https://time.com/6257557/lebanon-solar-power-boom/

⁶ G. Saad, Lebanon; Why Blackouts are Inevitable, By the East, August 28, 2024. Available at: https://www.bytheeast.com/2024/08/28/lebanon-why-blackouts-are-inevitable/

⁸ See: International Monetary Fund (IMF), Lebanon – Selected Issues, IMF Country Report No. 19/313, Washington, DC, 2019. Available at: https://www.imf.org/media/Files/Publications/CR/2019/1LBNEA2019002.ashx

⁹ L. Dagher, et al., Extreme Energy Poverty: The Aftermath of Lebanon's Economic Collapse, Energy Policy, Volume 183, 2023, page 2. Available at: https://doi.org/10.1016/j.enpol.2023.113783

BBC, Lebanon Left Without Power as Grid Shuts Down, 9 October, 2021. Available at: https://www.bbc.com/news/world-middle-east-58856914

HRW, Lebanon: Nationwide Electricity Blackout, News Release, August 29,2024. Available at: https://www.hrw.org/news/2024/08/29/lebanon-nationwide-electricity-blackout

¹² HRW, Cut Off from Life Itself – Lebanon's Failure on the Right to Electricity, March 9, 2023. Available at: https://www.hrw.org/report/2023/03/09/cut-life-itself/lebanons-failure-right-electricity

preserve livelihoods, Lebanon witnessed an exponential increase towards RE installations – particularly solar photovoltaic (PV) installations.

Since 2020, a recorded increase less than 100 megawatts (MW) of cumulative capacity to over 1,300 MW has been recorded¹³, and by 2022, more than 500 million USD invested in decentralized solar applications by the private sector - this excludes the solar power installations financed by international donors and aid organizations - ¹⁴ that accumulated to an approximate total of 80,315 tons of solar panels, quadrupling the amount imported in the previous ten years combined¹⁵.

However, this transition was largely unregulated and privately financed, filling a vital gap and exposing serious governance weaknesses. With limited oversight of technical standards, and no coherent integration of Distributed Renewable Energy (DRE) into the national grid.

While Lebanon has enacted numerous laws, decrees, and strategies governing RE, these legal frameworks RE remain fragmented and underdeveloped.

Most notably, Law No. 462/2002, that organizes the Electricity Sector, and only grants EDL and licensed independent power producers the right to generate and sell electricity, additionally, and mandates the establishment of National Electricity Regulatory Authority (ERA) by the Council of Ministers (CoM), this Authority was absent as of lately, pursuant to Cabinet Session No. 27/2025 held on 11/09/2025, Decision No. 12 includes the "approval of the appointment of the ERA for a five year term, non-renewable and non-extendable" ¹⁶.

In 2022, a draft law was developed on DRE, this law was then passed on the parliaments last legislative session on 14 December 2023¹⁷, as Law No. 318/2023 that was issued with reference to the Electricity Sector Policy Paper of 2010¹⁸, approved by the CoM, and its 2019 update (referred hereinafter as the "Updated Policy Paper for the Electricity Sector")¹⁹, where one of its main objectives was to provide one-third of the required energy through RE and in reference to the National Energy Efficiency Action Plan (NEEAP) 2011-2015 that set out an

¹⁴ C. Ayat Boukather, Re-Energize Lebanon: 5 Action Steps to Rebuilding Lebanon's Collapsed Electricity Sector, American University of Beirut, Issam Fares Institute for Public Policy and International Affairs, 2023, page 18-19. Available at: https://www.aub.edu.lb/ifi/Documents/publications/research_reports/2022-2023/Reenergize%20Lebanon%20Feb%202023.pdf

¹³ Y. Bitar, Lebanon's Solar Rollout: In What Ways Has it Been an Unjust Energy Transition, Arab Reform Initiative, 2024, page 2. Available at: https://www.arab-reform.net/publication/lebanons-solar-rollout-in-what-ways-has-it-been-an-unjust-energy-transition/

A. Taha and R. Akel, According to the Lebanese Customs Administration. Regulating the Energy Transition: Lebanon's New Law on DRE, The Lebanese Center for Policy Studies (LCPS), February 7, 2024. Available at: https://www.lcps-lebanon.org/en/Articles/details/4853/monitor-%7C-regulating-the-energy-transition-lebanon%E2%80%99s-new-law-on-distributed-renewable-energy

¹⁶ Decision No. 12, Cabinet Session No. 27/2025, Presidency of the Council of Ministers Official Website, September 11,2025. Available at: http://www.pcm.gov.lb/arabic/subpg.aspx?pageid=26255

¹⁷ A. Taha and R. Akel, Monitor: Regulating the Energy Transition: Lebanon's New Law on DRE, LCPS, 2024. Available at: https://www.lcps-lebanon.org/en/Articles/details/4853/monitor-%7C-regulating-the-energy-transition-lebanon%E2%80%99s-new-law-on-distributed-renewable-energy

¹⁸ G. Bassil, Policy Paper for the Electricity Sector, MoEW, June 2010. Available at: https://www.lcec.org.lb/sites/default/files/2021-02/Policy%20Paper%20MEW.pdf

¹⁹ The updated Policy Paper in 2019: Lebanese Republic MoEW, Updated Policy Paper for the Electricity Sector, March 2019. Available at: https://energyandwater.gov.lb/mediafiles/Articles/doc-100515-2019_06_16_07_56_39.pdf

action plan to produce 12% of Lebanon's energy needs from RE by 2020²⁰ and given that Lebanon has committed to generating 30% of its electricity from renewable sources by 2030 under its Nationally Determined Contributions (NDCs), a goal that will remain aspirational unless strong governance systems are put in place²¹.

This law was issued to regulate DRE, however with the absence of an established and operational ERA in that period, the law couldn't be effectively implemented. leaving the private sector and municipalities without guidance, all of which will lead to even more unregulated RE installations lacking assistance and proper monitoring, that may cause environmental and safety risks.

Therefore, the governance of Lebanon's RE sector must be urgently addressed, not only to safeguard the progress made but to ensure that the transition is equitable, transparent, and sustainable. Complicating this effort is the fragmented institutional landscape, where several oversight bodies such as the Public Procurement Authority (PPA) play a vital role in monitoring transparency and accountability. In addition to the number of laws and decrees that may create complexity and overlap, all of which makes it more difficult to have an efficient and effective governance RE sector, in order to identify gaps and fragmentations and room for improvements in the RE sector.

Thereby, in order to preserve the environment, public health and to ensure a regulated sustainable shift towards RE, in a way that is compatible with the interest of society, this initially requires that related sectors have a high level of governance that allows for the adoption of effective policies that contribute to preserving the environment, as well as to promote medium to long term economic growth.

In this paper, we present the "Fundamental Principles of Good Governance in the RE Sector" most notably those recommended to be followed within the framework of strengthening the governance of the electricity sector at a national level. These principles refer to the decision-making processes involved in monitoring and managing RE, and the means by which decisions are made through adopting them, all of which constitute the primary basis for good governance, these principles are: Rule of Law; Transparency; Public Participation; Accountability; Effectiveness and Efficiency

To then extract from these principles, the "*Renewable Energy Governance Index for Lebanon*", a benchmarking tool designed to assess the quality and effectiveness of governance in the RE sector. The purpose of this index is to evaluate how governance affects the trajectory of Lebanon's RE sector. Specifically, the index seeks to:

06/Lebanon's%202020%20Nationally%20Determined%20Contribution%20Update.pdf

²⁰ Lebanese Republic MoEW, The NEEAP, 2011 – 2015. Available at: https://lcec.org.lb/sites/default/files/2021-02/NEEAP%202011%202015.pdf

See also: The 2021-2025 NEEAP for Lebanon. Available at: https://lcec.org.lb/sites/default/files/2022-06/LEB(NEEAP%202016-2020).pdf

²¹ United Nations Framework Convention on Climate Change (UNFCCC), Lebanon's 2020 NDCs, 2020. Available at:

https://unfccc.int/sites/default/files/NDC/2022-

- Identify institutional strengths and gaps in the current legal, regulatory, and policy frameworks.
- Assess the capacity and roles of key stakeholders, including ministries, regulatory authorities, municipalities, private sector actors, and civil society organizations (CSOs).
- Examine how governance impacts access, affordability, sustainability, and accountability in RE deployment.
- Provide quantitative and qualitative benchmarks for future reform and investment priorities.

We then apply the index to a subsector, where we chose "Solar Energy", followed by an analysis of the results obtained, leading up to the "Conclusions and Recommendations" that we reached in the context of this paper per principle and per stakeholders to push towards greater governance in the RE sectors to ensure their development and sustainability, and to foster transparency and accountability to encourage international donors, private investors, and local stakeholders to engage in Lebanon's energy transition with clarity and confidence.

Fundamental Principles of Good Governance in the Renewable Energy Sector

Governance is as old as the human civilization, Plato referred to it as the "art of navigation" of a community²². In modern times, "governance" was developed as a concept in a broader context, and has been defined by The United Nations Economic and Social Commission for Asia and Pacific (UNESCAP) as "the process of decision-making and the process by which decisions are implemented (or not implemented)"²³.

With the widespread increase of public mismanagement, corruption, political instability, environmental challenges and human rights violations²⁴, this drove to a global change in perspective and resulted in the emergence of good governance ideas, that became especially popular in the discourse of public management and public policy making²⁵.

Leading up to the familiarity with the concept of "good governance", that can be described in short, according to the WB as "epitomized by predictable, open and enlightened policy making; a bureaucracy imbued with a professional ethos; an executive arm of government accountable for its actions; and a strong civil society participating in public affairs; and all behaving under the rule of law"²⁶. It emphasizes on how things are done (i.e. how decisions are made and how policies and laws are implemented) rather than only focusing on what is

²³UNESCAP, What is Good Governance? 2013. Available at: https://www.unescap.org/sites/default/files/good-governance.pdf

²⁵ M. Asaduzzaman and P. Virtanen, Governance Theories and Models, Global Encyclopedia of Public Administration, Public Policy and Governance, Springer, New York, 2016, pg 1-13. Available at: https://link.springer.com/referenceworkentry/10.1007/978-3-319-31816-5 2612-1

²² A. Malapi – Nelson, The Nature of the Machine and the Collapse of Cybernetics: A Transhumanist Lesson for Emerging Technologies, 2017. Available at: https://doi.org/10.1007/978-3-319-54517-2

P.S. Jones, A Test of Governance: Rights-based Struggles and the Politics of HIV/AIDs Policy in South Africa, Political Geography, pg 1003-1029. Available at: https://doi.org/10.1081/PAD-200039883

WB, Governance: The WB's Experience, 1994, Preface – page vii. Available at https://documents.worldbank.org/en/publication/documents-reports/documentdetail/711471468765285964/governance-the-world-banks-experience

being done, based on specific principles that promote accountability, transparency, the rule of law, and sound financial management²⁷.

In the context of RE governance, and in order to achieve the highest possible standards of good governance in the sector, it is necessary to highlight the fundamental principles upon which the legislative and regulatory frameworks must be based. These principles serve as a foundation for stronger, more coherent governance structures, thereby contributing to the effective development, implementation, and long-term sustainability of the RE sector and its related field. The following are five core principles that form the basis of good governance in the RE Sector:

- 1. Rule of Law;
- 2. Transparency;
- 3. Public Participation;
- 4. Accountability;
- 5. Effectiveness and Efficiency;

The selection of these five principle is grounded in international best practices and aligned with key global governance frameworks such as those advanced by the UN, the OECD, and the WB. These principles are essential for promoting equity, ensuring the responsible use of public resources, facilitating inclusive decision-making, and enhancing the legitimacy and resilience of institutions.

The First Principle: The Rule of Law

The rule of law plays a crucial role as a foundational principle in supporting RE growth and sustainability. It establishes clear and consistent legal frameworks that provide regulatory certainty, fairness and stability necessary for encouraging long-term investments in green technologies, sustainable infrastructure, and RE projects while ensuring strong mechanisms for enforcing contracts to enhance investment and investor confidence²⁸.

Proper enforcement of RE regulations is essential in efforts to mitigate environmental degradation and to promote environmentally friendly practices, to safeguard natural resources for future generations²⁹.

The UN defines the Rule of Law as "a principle of governance in which all persons, institutions and entities, public and private, including the State itself, are accountable to laws that are publicly promulgated, equally enforced and independently adjudicated, and which are consistent with international human rights norms and standards. It requires measures to

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²⁷ Council of Europe (CoE), The 12 Principles of Good Democratic Governance. Available at: https://www.coe.int/en/web/centre-of-expertise-for-multilevel-governance/12-principles

²⁸ J. Debberma and Y. Choi, A Taxonomy of Green Governance: A Qualitative and Quantitative Analysis Towards Sustainable Development, Vol. 79, 2022. Available at: https://www.sciencedirect.com/science/Article/abs/pii/S2210670722000270

²⁹ G. Weiyu et al., Rule of Law, Corruption and Transparency Impacts on Green Growth of East Asian Economies, Humanities and Social Sciences Communications, 2024, page 1-2. Available at: https://doi.org/10.1057/s41599-024-03659-1

ensure adherence to the principles of supremacy of the law, equality before the law, accountability to the law, fairness in the application of the law, separation of powers, participation in decision-making, legal certainty, avoidance of arbitrariness, and procedural and legal transparency"³⁰.

Thereof, a strong rule of law requires the presence of the following interconnected elements³¹:

- 1. Consistent legal frameworks with fundamental rights, promoting equality and participation in the development process at the national level;
- 2. Clearly written laws that can be understood by the average person and easily accessible;
- 3. Development of comprehensive laws that are applied fairly accompanied by an independent and impartial judiciary that promotes fairness and ensures transparent, timely and predictable resolutions of disputes³²;
- 4. Effective and efficient public institutions, where Ministers and public officials at all levels must exercise the powers conferred on them reasonably and in good faith;
- 5. Accountability that must be translated into enforcement, observance and compliance in practice.

In the context of RE governance, this principle presupposes that the legal framework guiding the energy transition is consistent with constitutional rights and international standards, and that all actors — public, private, and civil society — operate within a clear, stable, and enforceable legal framework to enhance long-term investment, deter corruption, and multistakeholder involvement³³, this includes laws and regulations governing, but not limited to:

- Licensing;
- Environmental protection and sustainability;
- Public procurement;
- Land use; and
- Competition.

The governance of RE is directly linked to the promotion of human rights, where there should be a consideration to the rights to access clean, affordable, and reliable energy, while

³⁰ Rule of Law and Transitional Justice in Conflict and Post-Conflict Societies: Report of the Secretary-General, UN, 2004, page 4. Available at: https://digitallibrary.un.org/record/527647?ln=en#record-files-collapse-header

³¹ UN Global Compact, Promote the Rule of Law to Protect Citizens and Businesses, Rule of Law. Available at: https://unglobalcompact.org/what-is-gc/our-work/governance/rule-law

³² UN Office on Drugs and Crime, Criminal Justice Assessment Toolkit, Access to Justice: The Independence, Impartiality and Integrity of the Judiciary, UN, 2006, page 287. Available at: https://www.unodc.org/unodc/en/justice-and-prison-reform/Criminal-Justice-Toolkit.html

³³ Extractive Industries Transparency Initiative (EITI), EITI Standard 2023 – Part 1: Principles and Requirements, page 15. Available at: https://eiti.org/eiti-standard

considering the environment that should be managed sustainably, transparently and with respect for the rule of law³⁴.

Human rights play an essential role in promoting sustainable development and environmental goals, as the Universal Declaration of Human Rights (UDHR) stipulates in its preamble that "if man is not to be compelled to have recourse, as a last resort, to rebellion against tyranny and oppression, [then] human rights should be protected by the rule of law"³⁵.

The function of the rule of law has long been recognized by Human Rights Entities as an essential element in the exercise of human rights, most notably expressed by the 1972 Stockholm Declaration on the Human Environment³⁶ and confirmed explicitly by the Rio 20+ Conference of 2012³⁷; Demonstrating the close connection between the rule of law, the practice of human rights, and environmental preservation violating the rule of law can undermine sustainable development and the implementation of agreed environmental goals and objectives.

In recent years, the pursuit of sustainable energy sources, with the expansion of RE has become a worldwide phenomenon, however, it is often hindered by regulatory barriers that complicate the adoption and integration of RE technologies, such as – but not limited to -:

- Outdated policies and regulatory frameworks;
- Complex or inadequate permitting processes;
- Administrative hurdles;
- Challenges related to interconnection standards and grid integration.

Such obstacles Showcase the importance of understanding and addressing these legal challenges to accelerate the transition and promotion towards RE.

In Lebanon, over the past few years, many individuals and businesses, have resorted to solar solutions out of necessity due to severe power cuts, with the absence of a guided national policy, regulatory enforcement and strategic oversight, which resulted in unregulated installations and unclear safety standards, all of which undermines legal certainty, equal application of the law, public safety, and the credibility of relevant institutions, weakening the rule of law and hindering Lebanon's sustainable energy transition.

Overcoming regulatory barriers requires legislative reform to enhance legal clarity and enforceability, such as in Germany that provides a globally recognized model in its RE

The 1972 Stockholm Declaration on the Human Environment, Principle (1), which provides for the right of humanity: "Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of quality that allows for a life of dignity and well-being...". Available at: https://www.un.org/en/conferences/environment/stockholm1972

³⁴ Environmental Rule of Law: Critical to Sustainable Development: Issue Brief, United Nations Environment Programme (UNEP), 2015, page 1. Available at: https://wedocs.unep.org/bitstream/handle/20.500.11822/10664/issue-brief-erol.pdf?sequence=1&isAllowed=y
³⁵ UN, UDHR, 1948, Preamble. Available at: https://www.un.org/en/about-us/universal-declaration-of-human-

³⁷ UN, Conferences – Environment and Sustainable Development, UN Conference on Sustainable Development in Rio de Janerio (Rio +20), 20-22 June 2012. Available at: https://www.un.org/en/conferences/environment/rio2012

Sector, referred to as the Renewable Energy Sources Act³⁸ (EEG), first enacted in 2000, and has underwent various transparent and participatory revisions overtime, creating a stable and binding legal framework.

Another strategic approach to enhance the rule of law is to address these legal challenges in compliance with environmental regulations and permitting requirements which is essential for ensuring the sustainable development of RE projects³⁹.

This can be achieved through conducting Environmental Impact Assessments (EIAs) and implementing robust mitigation measures to minimize environmental impacts⁴⁰. Canada, for example, has adopted this approach, where the National Energy Board requires RE projects to undergo a comprehensive environmental assessment before they can be approved, in order to identify, understand, assess, mitigate and prevent where possible, adverse environmental effects of a RE project before irrevocable decisions are made⁴¹.

Proper governance in the RE sector is not only a technical or environmental concern, it is vital to human rights protection and a foundation to sustainable development, that must be prioritized by linking it to fundamental rights and obligations, without the rule of law and enforcement of legal rights and obligations, the management of RE may be arbitrary, or subjective and unpredictable decisions may be made⁴².

In Lebanon's shift to RE, the rule of law must be considered as the cornerstone of legitimacy, accountability and equity, this transition should be accompanied with a strong legal foundation that ensures clarity, transparency, predictability, and fairness for all relevant stakeholders.

The Second Principle: Transparency

Transparency serves as an integral part of freedom of expression and is an important tool for promoting the rule of law, other rights and building trust⁴³. According to Open Government Partnership (OGP), transparency occurs when "government-held information (including activities and decisions) is open, comprehensive, timely, freely available to the public, and meets basic open data standards (e.g. raw data, machine readable)⁴⁴".

³⁸ Germany's Renewable Energy Sources Act OF 2000 (EEG, latest Version EEG 2023). Available at:

https://climate-laws.org/document/renewable-energy-sources-act-eeg-latest-version-eeg-2022_1b40

T. Adegoke, et al. Evaluating the Fairness of Credit Scoring Models: A Literature Review on Mortgage

Accessibility for Under-Reserved Populations, GSC Advanced Research and Reviews, 18(3), 2024, page 189-199. Available at: https://gsconlinepress.com/journals/gscarr/content/evaluating-fairness-credit-scoring-models-literature-review-mortgage-accessibility-under

 $\underline{https://www.researchgate.net/publication/329355638_Environmental_Impact_Assessment_as_a_Tool_for_Su_\underline{stainable_Development}$

⁴² Environmental Rule of Law: Critical to Sustainable Development: Issue Brief, Op.Cit., page 1.

⁴⁰ J. Kurian, et al., Environmental Impact Assessment as a Tool for Sustainable Development (In book: Encyclopedia of Sustainability in Higher Education) Springer Nature, Switzerland, 2018, page 2-3. Available at:

⁴¹ Government of Canada, Environmental Assessments, 2025. Available at: https://natural-resources.canada.ca/energy-efficiency/environmental-assessments

⁴³ The United Nations Educational, Scientific and Cultural Organization (UNESCO), Right to Information. Available at: https://www.unesco.org/en/right-information

⁴⁴ Open Government Partnership Official Website, Glossary - Transparency. Available at: https://www.opengovpartnership.org/glossary/transparency/

The WB, recognizes that within the development process, transparency and accountability are fundamental principles, necessary to enhance good governance, accountability and effectiveness⁴⁵.

As Transparency fosters public trust, enables informed participation, and acts as a safeguard against corruption and misuse of power⁴⁶.

A good practice of transparency is presupposing the effective access to information, which entails more than simply making data available.

Effective Access to Information

Transparency is the procedural application of ensuring the right to access information, that enhances public awareness on one hand, and ensures effective public participation in the decision making processes on the other.

Transparency also helps strengthen accountability in the implementation of policies, coupled with mechanisms of participation, transparency can also help limit the degree of bias in favor of certain stakeholders, whether its groups, firms or individuals⁴⁷.

The right to access information is upheld on the international level, as mentioned in Article (19) of the UDHR ratified in 1948 which stipulates that "Everyone has the right to freedom of opinion and expression (FOE); This right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers"⁴⁸.

The International Covenant on Civil and Political Rights (ICCPR) provides further protection for this right, including the freedom to seek, receive and disseminate information and ideas of all sorts, affirmed in Article (19)⁴⁹, provided that this right is exercised within the restrictions specified in the Third Paragraph of the same Article. The Rio Declaration of 1992 also affirms the right to access information in its 10th Principle⁵⁰.

On the national level, the Lebanese Right to Access Information Law No. 27/2017, states in its first Article that "any natural or legal person, irrespective of standing and interest, shall have the right to access and consult information and documents held by the Administration ...

⁴⁵ Proposed revised programme of work and budget for the biennium 2014-2015, United Nations Environment Assembly (UNEA), Nairobi, 2014, p. https://wedocs.unep.org/bitstream/handle/20.500.11822/17688/K1401050.doc?sequence=1&isAllowed=y

⁴⁶ H. Addink, Good Governance: Concept and Context - The Principle of Transparency, Oxford, Oxford University Press, 2019. Available https://academic.oup.com/book/35056/chapterat: abstract/298981070?redirectedFrom=fulltext

⁴⁷ WB, Enhancing Government Effectiveness and Transparency: The Fight Against Corruption, WB, 2020, page https://www.worldbank.org/en/topic/governance/publication/enhancing-governmentat: effectiveness-and-transparency-the-fight-against-corruption

⁴⁸ UDHR, Article (19), Op.Cit.

⁴⁹ UN General Assembly, The International Covenant on Civil and Political Rights, UN, 16 December 1966, Series, Vol. 999, Article (19). Available at: https://www.ohchr.org/en/instrumentsmechanisms/instruments/international-covenant-civil-and-political-rights

⁵⁰ United Nations Conference on Environment and Development (UNCED), Rio Declaration on Environment and Development. UN, 1992, Principle (10).Available at. https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A CON F.151 26 Vol.I Declaration.pdf

without the need to clarify the reasons of, or the use for, the submitted request, for as long as the person does not misuse this right" 51 .

Moreover, the Lebanese Constitution guarantees the right to access to information based on its Preamble – Section (B) affirming that Lebanon commits to the UDHR and related international covenants and agreements, stating that "... Lebanon is also a founding and active member of the UN Organization and abides by its covenants and by the UDHR. The Government shall embody these principles in all fields and areas without exception"⁵². Moreover, Article (8) of the UDHR⁵³ has become part of the Lebanese Constitution, according to a decision by the Constitutional Council, and Article (19) of the Lebanese Constitution guarantees the right of FOE⁵⁴.

For transparency to serve this function effectively, access to information must meet specific criteria. "Effective" access to information entails that the information being published must be:

- Accurate:
- Freely available;
- Timely accessible⁵⁵;
- In a Machine-Readable format;
- Able to be searched, copied and downloaded;
- Appropriate, in clear language and in proper formats, to be easily understood by the average person rather than specialists;

Moreover, the user accessing this information must not be required to create an account or provide personally identifiable information (PII) that can be used to identify an individual, either directly or indirectly, this includes their name, email address, home address, passport or national ID number or phone number⁵⁶.

A good example to refer to is the Danish Open DataHub "Energinet", that enables all transactions related to the retail and wholesale market to be managed through one central system operated and owned by the transmission system operator. This enhances transparency and ensure a level playing field regarding access to data⁵⁷.

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Law No. 28/2017: The Law on the Right of Access to Information, and its amending law No. 233/2021, along with its implementing decree No. 6940/2020, Official Gazette Issue No. 8. Available at: https://nacc.gov.lb/wp-content/uploads/2023/11/P1E-Access-to-Information-Law-28.2017.pdf

Lebanese Constitution of 1926, Preamble Section (B). Available at: https://www.presidency.gov.lb/English/LebaneseSystem/Documents/Lebanese%20Constitution.pdf

⁵³ UDHR, Article (8), Op. Cit.

⁵⁴ Lebanese Constitution, Op. Cit, Article (19).

⁵⁵ Timely Accessible means that the information must be published while leaving sufficient time for stakeholders and the public in general to analyze and respond to the data and provide opinions and suggestions.

⁵⁶ EU, General Data Protection Regulation (GDPR), 2016. Available at: https://gdpr.eu/

⁵⁷ Danish Ministry of Climate, Energy and Utilities, Denmark's Integrated National Energy and Climate Plan – Under the Regulation of the European Parliament and of the Council on the Governance of the Energy Union and Climate Action, 2019, page 120. Available at: https://energy.ec.europa.eu/system/files/2020-01/dk final necp main en 0.pdf

Public Interest Test

Even though the right to access information is a right, it isn't absolute, there are some exceptions to this right, however, these exceptions don't imply to withholding information as a form of exception. Law No. 28/2017 states in Article (5) lists several exceptions under which public institutions may withhold information, such as:

- Secrets related to national defense, national security and general security;
- State's foreign policy interests;
- Private lives of individuals and their mental and physical health;
- Secrets protected by law such as trade and professional secrets.

This poses a challenge for transparency, since this Article doesn't allow the application of the "public interest test", as it excludes access to trade secrets that can be used to prevent access to necessary information in general and that related to the RE sector in particular, such as information related to environmental and social impact assessments (ESIAs) for example, which the public interest requires to be made available due to the risks that could occur if it is withheld.

This public interest test summarizes – in line with the principle of proportionality – the need for three condition to be applicable on the information that the administration wants to withhold, these conditions are⁵⁸:

- 1. The information must be related to a legitimate purpose specified in law, such as national security secrets or trade secrets;
- 2. The dissemination of this information would cause serious harm to the aim protected by the law;
- 3. The serious harm must be greater than the public interest achieved by publishing the information.

Public interest doesn't mean the entire population has to be affected, or even a significant section of it, sometime even, the private interests of individuals can also reflect wider public interests.

The starting point of a public interest test is that official information must be made available on request, unless there is a "good reason" for withholding it, that may include things like personal privacy, confidentiality, and trade secrets. The "good reason" for withholding that are subject to the public interest test⁵⁹. It is also not possible to list all potential public interest

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⁵⁸ **See:** Report of the Special Rapporteur on freedom of opinion and expression of the UN, Economic and Social Council. Annex II; The Public's Right to Know: Principles Relating to the Laws of Freedom of Information Flow, Principle 4: Limited Scope of Exceptions, p. 68 ff. E/CN.4/2000/63. Available at: https://undocs.org/ar/E/CN.4/2000/63

See also: For further information on discretion and the principle of proportionality in applying the public interest test, The Human Rights Committee's general comment No. (34) on Article (19) of the ICCPR, p. 8, para. 22.Available at: https://digitallibrary.un.org/record/715606?ln=ar

⁵⁹ Ombudsman – Fairness to All, Public Interest: A Guide to the Public Interest Test in Section 9(1) of the OIA and Section 7(1) of the LGOIMA, New Zealand, 2019, page 5. Available at: https://www.ombudsman.parliament.nz/resources/public-interest-guide-public-interest-test

considerations favoring the disclosure of official information, the 'public interest' is an openended and flexible concept. It depends entirely on 'the circumstances of the case'.

In the UK, under the Environmental Information Regulation of 2004⁶⁰, public authorities are required to disclose environmental information unless an exemption applies⁶¹. However, even if an exemption exists, a public interest test must be applied, this means that you can refuse to disclose information under these exceptions only if "in all the circumstances of the case the public interest in maintaining the exception outweighs the public interest in disclosing the information"⁶².

Therefore, adopting transparency and ensuring the right to effective access to information contributes to enhancing the governance of the RE sector governance. Where information must not only be published but also freely available in a Machine-Readable Format, where it and its content can be searched, copied and downloaded, preferably through the official entities' website.

The availability of information must also be appropriate, in clear language and in proper formats, to be easily understood by stakeholders and the average person rather than specialists. In addition, the information must be accurate and available in a timely access, i.e. the information is published while leaving sufficient time for stakeholders and the public in general to analyze and respond to the data and provide opinions and suggestions.

The Third Principle: Public Participation

In simple terms, public participation is a process, not a single event, where the government receives opinions and input from the public before drafting, passing law and deciding as well as implementing policies. This process offers stakeholders the opportunity to influence and take part in decision that affect them⁶³.

Public participation is considered one of the most recognized principles for achieving sustainable development, as it enables the reconciliation of the often competing social, economic, and environmental priorities of policymaking⁶⁴.

The processes of participation can take effect at several different levels, that includes – but not limited to -:

- Policies and legislation (statutes and decrees);
- Planning activities and program development; and
- Projects.

⁶⁰ UK Statutory Instruments, The Environmental Information Regulations 2004. Available at: https://www.legislation.gov.uk/uksi/2004/3391/contents

⁶¹ Ibid, Article (12).

⁶² Information Commissioners Office, How Exceptions and the Public Interest Test Work in the Environmental Information Regulations. Available at: <a href="https://ico.org.uk/for-organisations/foi/freedom-of-information-and-environmental-information-regulations/how-exceptions-and-the-public-interest-test-work-in-the-environmental-information-regulations/#a5

⁶³ United States Environmental Protection Agency, International Cooperation: Public Participation Guide: Introduction to Public Participation - What is Public Participation. Available at: https://www.epa.gov/international-cooperation/public-participation-guide-introduction-public-participation

⁶⁴ H Addink, Good Governance: Concept and Context, Page 129, Op.Cit.

It is widely recognized that access to information and the ability to participate intertwine with one another by sharing the same goal to defend human rights. The ability of one to exercise his right contributes in the strengthening another right, and the ability to exercise it, and so on.

The right to participation is rooted in the Lebanese Constitution and in international agreements, such as the UDHR, where Article (21) sets forth this fundamental right, stating that: "Everyone has the right to take part in the government of his country, directly or through chosen representatives" 65.

For effective public participation, this requires the fair treatment and inclusiveness of all groups, especially the most vulnerable and minorities.

As a collective phenomenon, exclusion often happens when certain groups are systematically excluded, discriminated and disempowered on the basis that affects their access to economic opportunities, development and other resources, in addition to their ability to participate in political processes and exercise their rights to do so⁶⁶.

According to the UN Principles of Effective Governance for Sustainable Development, inclusiveness is one of the fundamental principles that falls under the concept of "leaving no one behind" as a way to ensure that all individuals can fulfill their potential in dignity and equality, public policies are to take into consideration the needs and aspirations of all segments of society, including the poorest and most vulnerable and those subject to discrimination⁶⁷.

Thus, inclusiveness is a foundational pillar of good governance, it is a transformative approach that aims to foster equitable participation and representation of all individuals, irrespective of their race, gender, geographic location, religion, or socio-economic status within society, most notably amplifying the voices of marginalized communities, ensuring that their needs and concerns are addressed within the decision-making process⁶⁸.

This principle ensures that all stakeholders have equitable opportunities to participate and influence in the decision-making process, and applies with equal force to energy justice, as without transparency, accountability, and inclusive participation in energy decision-making, marginalized populations are left behind, and energy systems risk reinforcing existing inequalities.

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⁶⁵ UDHR, Article (21), Op.Cit.

⁶⁶ F. Stewart, Horizontal Inequalities as a Cause of Conflict: A Review of CRISE Findings, WB, Washington, DC, 2010. Available at:

https://openknowledge.worldbank.org/entities/publication/86dc685b-d5d4-53e2-ab25-10e7177a2a4f

See also: S. Klasen et al., Economic Inequality and Social Progress, in, Rethinking Society for the 21st Century, Cambridge University Press, Cambridge, UK, 2018. Available at: https://www.cambridge.org/core/books/abs/rethinking-society-for-the-21st-century/economic-inequality-and-social-progress/9C806600438DFE0E0CD9C96D6514C4F6

⁶⁷ UN, Principles of Effective Governance for Sustainable Development, page 14, Op.Cit.

⁶⁸ GGI Insights, Inclusive Governance: Equitable Participation and Representation, 2024. Available at: https://www.graygroupintl.com/blog/inclusive-governance

Participation in particular must involve stakeholders - whether individuals, groups or legal entities - grouping together both citizens and any interested and/or affected party⁶⁹. Involving both citizens and/or stakeholders is equally important for the opportunity to be given to be actively involved in shaping policies, plans, and programs related to RE development, yet their participation must not be treated identically⁷⁰, as the following distinction can be made:

- **Stakeholders:** any interested and/or affected party, including: individuals, regardless of their age, gender, sexual orientation, religious and political affiliations; and institutions and organizations, whether governmental or non-governmental, from civil society, academia, the media or the private sector⁷¹.
- Citizens: are individuals, regardless of their age, gender, sexual orientation, religious, and political affiliations. The term is meant in the larger sense of 'an inhabitant of a particular place', which can be in reference to a village, town, city, region, state, or country depending on the context⁷².

Meaningful and effective participation requires that the public knows that both the decision is being made and that they have the right to participate in the decision making process with the sufficient information that the public must have access to⁷³.

Public participation in the decision-making process must uphold minimum elements, beginning from sending out a notice in an effective manner that is calculated to reach the concerned public that a decision will be made, to giving sufficient time-frames to inform the public and for them to prepare, with time for public consultations to be held, where the public will have an opportunity to submit their comments, information and analyses.

The OECD has a specific framework for public engagement, consisting of three possible levels for organizing stakeholder engagement with the government in the decision-making process⁷⁴:

- Information
- Consultation
- Active Participation/Engagement

⁶⁹ Organization for Economic Co-operation and Development (OECD), OECD Guidelines for Citizen Participation Processes, OECD Public Governance Reviews, OECD Publishing, Paris, 2022, page 13. Available at: https://doi.org/10.1787/f765caf6-en

⁷⁰ OECD, Good Practice Principles for Deliberative Processes for Public Decision Making, 2020, page 6. Available https://www.oecd.org/content/dam/oecd/en/topics/policy-issue-focus/innovative-citizenparticipation/good-practice-principles-for-deliberative-processes-for-public-decision-making.pdf

⁷¹ OECD Legal Instruments, Recommendation of the Council on Open Government, OECD/Legal/0438. Available at: https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0438

⁷² OECD, OECD Guidelines for Citizen Participation Processes, Op.Cit., page 13.

⁷³ C. Saladin and B. Van Dyke, Implementing the Principles of the Public Participation Convention in International Organizations, Centre for International Environmental Law, 1998, page 6-7. Available https://www.ciel.org/Publications/ImplementingPrinciplesofPublicParticipation1.pdf

⁷⁴ OECD, "Open Government: The Global Context and the Way Forward", 2016, page: 12. Available at: https://www.oecd.org/gov/open-gov-way-forward-highlights.pdf

These levels determined by the OECD are further explained below as they are the most widely adopted in many countries that have a framework regulating how public consultation mechanisms work.

Providing the Public with Information

This is considered as the initial level of participation (a one-way relationship) in which the relevant official bodies informing the public about the process, and the types of documents they wish to approve or specific activities; Here stakeholders and other interested parties are informed about the project and its effects, giving them access to this information in an effective way through different ways that could include, often used useful tools and mechanisms for engaging the public in the decision-making process at this level include, but not limited to⁷⁵:

- Notice boards:
- Online mailings/E-mail alerts;
- Holding public meetings;
- Public awareness campaigns;
- Websites of public bodies with comprehensive access to key documents and announcement of public events and participation opportunities.

The public's right to access all information such as drafts, comments, and inferences extends throughout the period allocated for the decision-making process in a policy or law. This level requires interaction between official entities and the public, where official entities must ensure that the public has timely, accurate and relevant information to the decision-making process.

Conducting General Public Consultations

This process entails (a two-way relationship) in which the government facilitates inclusive, timely, and transparent public consultations, where stakeholder groups, such as citizens, NGOs, agencies, official entities, interest groups and relevant private sector bodies, get to bring their insights and expertise into the planned development process, where they get to explicitly address their comments, concerns and input.

Consultations can take several forms ⁷⁶, such as – but not limited to –:

- Holding public meetings with open discussions;
- Online consultation through web platforms;
- Polls:

- Questionnaires;
- Opinion surveys;
- Citizen panels;

⁷⁵ CoE, Civil Participation in Decision – Making Processes: An Overview of Standards and Practices in Council of Europe Member State, European Center for Non-Profit Law, Strasbourg, 2016, page 20 - 21. Available at: https://rm.coe.int/civil-participation-in-decision-making-processes-an-overview-of-standa/1680701801

⁷⁶ CoE, Civil Participation in Decision – Making Processes: An Overview of Standards and Practices in Council of Europe Member State, European Center for Non-Profit Law, Strasbourg, 2016, page 23. Available at: https://rm.coe.int/civil-participation-in-decision-making-processes-an-overview-of-standa/1680701801

- Focus groups.

Active Participation/Engagement

This process is the highest form of participation, as it refers to cooperation and jointly undertaken responsibilities at all stages of the decision-making process, where it is possible for stakeholders and other interested parties to share their intel in the development and the implementation of the proposed projects, plans or decisions.

During what is referred to as the **"scoping phase"**, where stakeholders identify and define the key issues, concerns, objectives, and boundaries of a proposed project, policy, or assessment. The following activities must be implemented by the relevant official entities to ensure effective public participation⁷⁷:

- Preliminary announcements about the scoping process posted on an electronic database this presupposes the need of registering and creating an electronic data base, where the published information can be automatically updated with an up-to-date record of communication.
- Prepare a project brochure giving brief details of what is proposed with a plan or map, describing the process, purpose of scoping and calling for proposals/feedback;
- Distribute questionnaires to potentially interested organizations for additional feedback and input;
- Conduct public meetings, discussions or meetings with key organizations, groups or individuals;
- Publish Articles and updates on the designated website;
- Conduct public exhibitions to facilitate public participation, especially individuals who may refrain from sharing their opinions within the framework of a public meeting due to their inability to speak in front of a public gathering, and to mingle with decision makers and other stakeholders;
- Implement workshops in which participants work together through a structured program to define the scope and issues to be addressed in the decision-making process;
- Collect basic information, data and other sources to gain deeper insights into the current situation of stakeholders and potential development impacts that may require further assessment:
- Publish the draft scoping report for public review and comment before completing the decision-making process.

A good practice on applying the public participation principle can be portrayed in Denmark, where the government has established a collaborative approach to energy planning on the National Energy and Climate Plans (NECP), involving around 100 stakeholders, interest

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⁷⁷EIA for the proposed construction, operation and decommissiong of the Saldanha Regional Marine Outfall Project of Frontier Saldanha Utilities Ltd. at Danger Bay on the Saldanha Bay Region, Final EIA Report – Chapter 5: Approach to Scoping and Public Consultations, 2015, page 4-10. Available at: https://sahris.sahra.org.za/sites/default/files/additionaldocs/Frontier%20FEIR%20Chap%205%20Approach%20to%20Scoping%20and%20PP_Apr2015.pdf

groups, organizations, NGOs, companies, public institutions etc. from across the energy sector. Moreover, the public was given a chance to participate where the Danish Ministry of Climate, Energy and Utilities and the Danish Energy Agency both posted the NECP on their official web page at the same time to give the public the opportunity to take part in the consultation. Almost all respondents were satisfied with the Government's ambitious goals, this approach has helped ensure that regulatory frameworks support the growth of RE while addressing the concerns of all stakeholders⁷⁸.

Another example is Scotland, where the Scottish Government has laid out *Good Practice Principles*⁷⁹ for onshore and offshore RE, to empower communities to engage in the decisions affecting their future, making their voice heard, and integrate them to participate fully in and benefit from Scotland's low carbon transition⁸⁰.

Through these public consultations, the Scottish Government is seeking the views of all those with an interest in the social and economic benefits of RE development for people and communities in Scotland. Alongside performing online consultations, the Scottish Government engages with key stakeholders, including communities, industry, and the public and third sectors to build as broad a picture as possible of the potential opportunities – and limits – of community benefits from RE⁸¹.

The Fourth Principle: Accountability

Accountability is a core principle of good governance and a prerequisite for effective, equitable, and transparent management of public resources. It refers to the government being responsible and answerable to its decisions and actions. In this process, public officials and institutions are supposed to be subject to continuous oversight and scrutiny⁸².

With effective accountability mechanisms, this ensures that the government, public institutions, public officials, private sector and civil society bodies take responsibility for their actions and decisions, while accepting appropriate consequences for any misconduct or omissions⁸³.

In simple terms, accountability is answerability for one's actions/behaviors. Accountability can be defined as "a relationship between an accounting party and an accountable party, with the latter required to inform and justify its actions to the former and suffer possible

⁷⁸ Danish Ministry of Climate, Energy and Utilities, Denmark's Integrated National Energy and Climate, Op.Cit, page 14-15.

80 Copper, Scotland's Community Benefits Consultations: Will it help achieve net zero? Available at: https://copperconsultancy.com/insight/scottish-community-benefits-consultation/

⁷⁹ Scottish Government, Community Benefits from Onshore Renewable Energy Developments, 2019. Available at: https://www.gov.scot/publications/scottish-government-good-practice-principles-community-benefits-onshore-renewable-energy-developments/

Scottish Government, Community Benefits from Net Zero Energy Developments: Consultation, 2024.

Available at: https://www.gov.scot/publications/community-benefits-net-zero-energy-developments-consultation/pages/2/

⁸² S.I. Lindberg, A. Luhramann and V. Mechkova, From de-jure to de-facto: Mapping Dimensions and Sequences of Accountability, Background Paper "Governance and the Law" – World Development Report, 2017, page 6. Available at: https://openknowledge.worldbank.org/bitstreams/bf68b246-49ed-5779-b4c5-7ec01d139233/download

⁸³ CoE, 12 Principles of Good Democratic Governance, 5th Principle: Accountability. Available at: https://www.coe.int/en/web/congress/12-principles-of-good-governance

punishment in case of misconduct" ⁸⁴. Similarly, the UN refers to accountability as "the oversight over fulfillment of responsibilities of public sector officials and the checks and balances on the exercise of political power" ⁸⁵.

The WB recognizes the importance of accountability in ensuring good governance, including responsive governance of natural resources. In this context, the WB includes accountability as part of its environmental and social standards that specify requirements that will, among other things, "promote non-discrimination, transparency, participation, accountability and governance" 86.

Accountability can have several forms, that includes vertical, horizontal, and diagonal accountability:

- **Vertical accountability:** refers to political accountability relations between citizens and their elected representatives⁸⁷.
- **Horizontal accountability:** refers to the mutual oversight embedded in the state's institutions of checks and balances⁸⁸..
- **Diagonal accountability:** also referred to as social accountability, it refers to 'hybrid combinations' of vertical and horizontal oversight, that involves direct citizen engagement (i.e. civil society organizations and independent media), this can involve either participation in or direct management of official oversight bodies⁸⁹.

In the RE sector, accountability ensures that:

- Decisions on licenses, subsidies, and grid access are fair, documented, and reviewable.
- Public funds allocated to RE projects are properly used and monitored.
- Oversight bodies and regulators perform their duties without conflict of interest or political interference.
- Private sector actors are held accountable for safety, performance, and consumer rights.

85 United Nations Economic and Social Council (ECOSOC), Accountability. Available at https://www.un.org/en/ecosoc/newfunct/dcf_account1.shtml

⁸⁷ S. Mainwaring and C. Welna, Democratic Accountability in Latin America, Oxford, Oxford University Press, 2003. Available at: https://doi.org/10.1093/0199256373.001.0001

⁸⁴ A. Schedler. "Conceptualizing Accountability", Boulder and London, *The Self-Restraining State: Power and Accountability in New Democracies*, 1999. Available at: http://works.bepress.com/andreas-schedler/22/

WB, Environmental and Social Framework (ESF): Setting Environmental and Social Standards for Investment Project Financing, WB Washington, DC, 2016, page (ix). Available at: https://pubdocs.worldbank.org/en/837721522762050108/Environmental-and-Social-Framework.pdf

⁸⁸ G. O'Donnell, Horizontal Accountability in New Democracies, Journal of Democracy, 9(3), 1998, page 1112-1126. Available at: https://www.journalofdemocracy.org/Articles/horizontal-accountability-in-new-democracies/

⁸⁹ **See:** J. Ackerman, Co-governance for Accountability: Beyond 'Exit and Voice, World Development, 32(3), 2004, pages 447-463. Available at: https://doi.org/10.1016/j.worlddev.2003.06.015

Thereof, accountability in national governance must include the following interrelated dimensions that can be referred to as subprinciples: *integrity*, *transparency*, *answerability*, enforcement and independent oversight⁹⁰. These subprinciples are described as follows:

Integrity

Corruption represents a barrier to the application of a just rule of law, as it erodes public trust in institutions and hinders effective governance and deters any progress towards sustainable development goals. It also undermines market mechanisms, distorting competition and the efficient allocation of resources.

This highlights the importance of Integrity as a subprinciple, it presupposes serving the public interest, where civil servants are to perform their official duties honestly, fairly and morally. This includes:

- The promotion of anti-corruption laws, policies and practices;
- Presence of code of conducts and conflict of interest policies;
- Competitive public procurement; and
- Whistleblower protection.

Transparency

Transparency refers to the informational dimension of accountability, that involves the right to access information on the commitments and responsibility of the government and its actors. There is then the right to receive an explanation and the corresponding duty to justify the questioned conduct. Transparency empowers stakeholders to actively monitor government actions and hold decision-makers accountable for their environmental stewardship efforts⁹¹.

Answerability

Answerability refers to the obligation of public officials to inform, explain, and justify their decisions and actions. This assumes a relation between accountable and accounting actors and the public debates in which they engage. It is closely tied to transparency and may involve formal mechanisms of monitoring and oversight⁹².

Enforcement

Indicates that the public or regulatory bodies can hold the violating party accountable or correct the violating behavior, whether through political practice or the subsequent application of legal procedures⁹³.

⁹⁰ P. Newell and J. Wheeler, Taking Accountability into Account, in Rights, Resources and the Politics of London, Accountability, Zed Books, page 23. https://assets.publishing.service.gov.uk/media/57a08c41e5274a27b20010a7/Newellwheelerintro.pdf

⁹¹ G. Weiyu et al, Rule of Law, Corruption and Transparency Impacts on Green Growth of East Asian Economies, Op.Cit., page 3.

⁹² ECOSOC, Accountability, Op.Cit.

⁹³ Transparency and Accountability: Regional Agricultural Trade Environment Summary, United States Agency Available International Development (USAID), 2013, page https://www.usaid.gov/sites/default/files/documents/1861/Transparency and Accountability.pdf

In the UK, since April 2023 the energy sector benefits from strong institutional accountability, through Energy Security and Net Zero Committee which is a select committee of the House of Commons in the Parliament of the UK. It is the successor to previous Energy and Climate Change Select Committee. It considers policy issues, scrutinizes the work of government and examines proposals for legislation, and when needed it holds public and private actors accountable⁹⁴.

The Fifth Principle: Effectiveness and Efficiency

The basis of good governance is to be effective and efficient, it supposes that the government and its relevant agencies meet the needs of society on one hand and preserve the environment's resources to ensure sustainability on the other. With the vision of long-term strategies that anchors RE governance in national development goals, climate commitments, and global energy trends⁹⁵. Effective governance not only promotes energy efficiency but also allows the population to have greater access to energy sources within their country⁹⁶.

In this context, *effectiveness* of governance, refers to the extent of reaching a specific goal or decision that the public policy or general mechanism seek to achieve, which must be accompanied by controls for the sustainable use of resources, protecting human ecosystems, preventing environmental impact and so on. As for *efficiency*, it refers to the sustainable and optimal use of available resources (financial, human, technical) and environmental protection to achieve these objectives ⁹⁷.

Moreover, this principle presupposes that entities responsible for governance and public administration, that they are *competent* to perform their functions effectively. Consequently, there should be *inter-agency collaboration* between governmental agencies such as between EDL and the Council for Development and Reconstruction. These agencies should also function within reasonable time frames that are proportionate, in order to reduce the effects of any risk, often referred to as *responsiveness*, one of the most prominent features of governance that contributes to achieving effective sustainable development and assists in providing basic public services, in addition to reducing the risks of disasters and incidents.

In the RE context, effectiveness and efficiency are indispensable to delivering energy projects that are cost-effective, timely, socially beneficial, and environmentally sustainable.

95 International Energy Agency, What Long-Term Energy Policy Planning Constitutes. Available at: https://www.iea.org/reports/developing-capacity-for-long-term-energy-policy-planning-a-roadmap/what-long-term-energy-policy-planning-constitutes

⁹⁴ UK Parliament, Committees. Available at: https://committees.parliament.uk/

⁹⁶ A.S Cabeca, et al., A Multi-Criteria Classification Approach for Assessing the Current Governance Capacities on Energy Efficiency in the European Union, Energy Policy, Vol. 148, 2021. Available at: https://doi.org/10.1016/j.enpol.2020.111946

⁹⁷ United Nations Development Programme (UNDP), Governance Principles, Institutional Capacity and Quality. Available at:

 $[\]underline{https://www.undp.org/sites/g/files/zskgke326/files/publications/Towards_SustainingMDGProgress_Ch8.pdf}$

Competence

The UN defines the principle of competence "to perform their functions effectively, institutions are to have sufficient expertise, resources and tools to deal adequately with the mandates under their authority" ⁹⁸.

Commonly used strategies to ensure competence development includes – but not limited to – the following⁹⁹:

- Capacity building;
- Conducting a skills gap analysis;
- Designing development plans;
- Conducting specified training programmes for skill enhancement (technical training, soft skills training, professional development workshops, on-the-job training, etc.);
- Performance management;
- Results-based management;
- Financial management and control.

Competence development should not be viewed as a one-time event but rather an ongoing process that adapts to changing demands and expectations.

For example, the International RE Agency (IRENA) provides capacity building support to its member countries, helping them develop the necessary skills and knowledge to navigate regulatory challenges in the RE sector¹⁰⁰.

Inter-Agency Collaboration

Developing effective RE policies often fail, with the presence of weak or vulnerable lobbying, which can reduce the formulation and implementation of comprehensive programs to boost the adoption of RE.

This highlights the need address problems of common interest, by harmonizing institutional coordinated efforts at all levels of government and in all sectors that should work together and jointly with non-state actors towards the same end, purpose and effect¹⁰¹, in order to strengthen governance structures, transparency, and foster a legislative climate that encourages RE investment¹⁰².

Effective inter-agency collaboration may include – but not limited to – the following:

⁹⁸ UN Department of Economic and Social Affairs – Public Institutions, Competence. Available at: https://publicadministration.desa.un.org/intergovernmental-support/cepa/competence

⁹⁹ UN, Economic and Social Council, Principles of Effective Governance for Sustainable Development, Official Records, E/2018/44-E/C.16/2018/8, par. 31, page 1. Available at: https://publicadministration.un.org/portals/1/images/cepa/principles of effective governance english.pdf

IRENA, Capacity Building. Available at: https://www.irena.org/Energy-Transition/Planning/Flexibility/Capacity-Building

¹⁰¹ Ibid.

¹⁰² H. Mahmood, S. Hassan, M. Tanveer, R. Parveen, Role of Rule of Law in the Renewable Energy Transition in Saudi Arabia: A Review and Analysis, Academic Journal of Interdisciplinary Studies, Vol. 12, No. 4, 2024, page 187 - 188. Available at: https://doi.org/10.36941/ajis-2024-0108

- 1. Clear mandates and role divisions among ministries (e.g., MoEW, Ministry of Environment(MOE)).
- 2. Data sharing by establishing shared information platforms (e.g., a centralized RE project registry).
- 3. Joint task forces or working groups for large-scale or cross-sectoral RE projects.
- 4. Regular communication and strategic alignment across local, national, and sectoral authorities.
- 5. Multi-stakeholder partnerships.

Responsiveness

Responsiveness supposes that the government is serving the needs of the community while balancing out the competing interest in the community and being responsive to their demands and needs¹⁰³.

An effective response is achieved by the cooperation that enhances the clarity and depth of understanding between the parties, as well as public policies to become more efficient and effective.

It also contributes to jointly setting priorities among many competing needs to improve the quality of life within communities and improve environmental management. As the UN recently acknowledged, the multi-stakeholder partnership model allows for "Sharing burdens, catalyzing action and engaging all relevant actors in addressing specific problems" ¹⁰⁴.

Responsiveness is activated in the structural and functional activities of official bodies. For example, at the level of local official bodies, the response process constitutes a working mechanism for officials along with the presence of specific protocols for expected and unexpected scenarios, so that they are prepared to respond to any environmental incident. These measures are then judged by the public, who form their own perceptions about the effectiveness of the official bodies' response. The public's reaction guides the future actions of public representatives and employees. In this way, public bodies that act responsively are either rewarded with support and trust from the public or are held accountable 105.

Therefore, good governance requires responding efficiently and effectively to RE needs, which requires establishing policies, strategies, programs, activities and resources, with special attention to local changes. To also respond more effectively to the challenges of

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¹⁰³ N.A Kamal Nik Mahmoud Good Governance and the Rule of Law, The First International Conference on Law, Business and Government, Indonesia, 2013. Available at: https://media.neliti.com/media/publications/172014-EN-good-governance-and-the-rule-of-law.pdf

¹⁰⁴ A Life of Dignity for All: Accelerating Progress Towards the Millennium Development Goals and Advancing the UN Development Agenda Beyond 2015, UN, ninety-eighth session, 2013, page 13, item 53. Available at: https://digitallibrary.un.org/record/754891?ln=en

J. Linde, and Y. Peters, Responsiveness, Support and Responsibility: How democratic responsiveness facilitates responsible government, SAGE Journals, 2020, page 292. Available at: https://doi.org/10.1177/1354068818763986

environmental sustainability and multiple development efforts, to identify the real needs and aspirations of the public.

Lebanon's Renewable Energy Regulatory Landscape

Over the past few years, many countries strive to meet climate targets set forth in different international agreements, such as the Paris Agreement¹⁰⁶ - that Lebanon is also a part of - to expand the installation of RE, to reduce greenhouse gas emissions, mitigate climate change and enhance energy security¹⁰⁷.

However, various regulatory barriers impede the widespread deployment and integration of RE into existing energy systems, that often delay or deter RE projects, due to many regulatory barriers such as outdated policies, complex or non-existent permitting processes, and administrative hurdles¹⁰⁸.

Despite the country's commitments under international agreements such as the Paris Agreement and its stated goal to reach 30% RE by 2030, the enabling regulatory environment remains underdeveloped, inconsistently implemented, and politically stalled 109.

Legal strategies play a vital role in overcoming such barriers, by addressing legal uncertainties, streamlining permitting procedures, and harmonizing regulations, to enable an environment that facilitates RE deployment.

Regulatory Framework

Lebanon's energy sector is regulated through a mix of outdated laws, decrees, decisions, strategies and policies. However, implementation remains inconsistent due to various reasons.

The key legal instruments regulating the electricity sector in general and the RE sector in particular are as follows:

Decree No. 16878/1964; Law Establishing Électricité du Liban

In 1964, Decree No. 16878 was issued, establishing the EDL, to monopolize generation, transmission and the distribution of electricity ¹¹⁰.

The decree mandated the transfer of electricity installations that were being operated by public and private entities to EDL. Moreover, ownership of concessions or licenses for

¹⁰⁶ UNFCCC, The Paris Agreement, adopted in 12 December 2015, entered into force on 4 November 2016. Available at: https://unfccc.int/process-and-meetings/the-paris-agreement

¹⁰⁸ P. Oduro, et al. Renewable energy expansion: Legal strategies for overcoming regulatory barriers and promoting innovation. World Journal of Advanced Engineering Technology and Sciences, 2024, page 171. Available at:

https://www.researchgate.net/publication/381001820_Renewable_energy_expansion_Legal_strategies_for_ov_ercoming_regulatory_barriers_and_promoting_innovation

109 UNDP, Lebanon Submits Updated National Climate Pledge Under Paris Agreement, 2021. Available at: https://www.undp.org/lebanon/press-releases/lebanon-submits-updated-national-climate-pledge-under-paris-agreement-updated-pledge-will-significantly-ramp-action-limit

Lexology, In Review: Energy Regulation in Lebanon, 2022. Available at: https://www.lexology.com/library/detail.aspx?g=6b3d28e9-9704-4229-9508-7c5f5f25c33e#:~:text=founded%20by%20Decree%20No,6

¹⁰⁷ UN – Climate Action. The Paris Agreement. Available at: https://www.un.org/en/climatechange/paris-agreement

electricity production, transmission, and distribution should be transferred to EDL upon expiration or cancellation. The decree granted exclusive power to EDL, making it the only competent authority to grant any concession, license, or authorization to any individual or company, for the production, transmission, or distribution of electricity, or the renewal or extension of such rights for any reason. However, according to Article (4) of this Decree, individuals and companies are allowed to generate electricity for their own personal use, provided that it is not distributed to other persons¹¹¹.

Law No. 462/2002; Electricity Sector Regulation Law

Law No. 462/2002, also known as the "Electricity Sector Regulation Law", provides a comprehensive and detailed framework to regulate the electricity sector, it also aims to liberalize, modernize and create a more competitive and efficient market by encouraging private sector participation in generation, transmission, and distribution¹¹².

This law requires additional regulatory and executive decree, particularly concerning the establishment of the *Electricity Regulatory Authority* as an independent body to oversee licensing, tariff setting, and competition, however this authority has been absent for not being established and operationalized by the CoM for almost twenty three years due to the continuous political disagreements around its roles and powers, noting that Law No.181/2011 subsequently gave a three-month grace period from its date of issuance to appoint this authority, whose role is stipulated in implementing Law No. 48/2017¹¹³ on regulating partnerships with the private sector¹¹⁴.

Even though the ERA was formally established on 11 September 2025, yet it remains non-operational. The failure in appointing the ERA for over twenty-three years has hindered the proper implementation of the law and the development of regulated production sources to include RE in all its forms, and the EDL retained control over many functions.

Additionally, this Law divides the production of electrical energy into public and private production enabling competition and reducing monopolies. To encourage citizens, the law exempts the establishment of production facilities for private use with a power less than 1.5 MW provided that the production processes take into account the requirements of the environment, and public health and safety – this is the only referral to RE in the entire Law.

If private production exceeds this amount, the law gives the ERA the right to grant permission to establish, equip, develop, own, operate, or maintain production facilities for private use, provided that the capacity does not exceed 10 MW¹¹⁵. Article (12) of this law gives the ERA the power to "issue and renew the suspension, amendment and cancellation of licenses and permissions".

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¹¹¹ Decree No. 16878/1946, Article (4), Op. Cit.

¹¹² A. Taha, et. al, Regulating the Energy Transition: Lebanon's New Law on DRE, The Lebanese Center for Policy Studies, Feb 07, 2024. Available at: https://www.lcps-lebanon.org/en/Articles/details/4853/monitor- %7C-regulating-the-energy-transition-lebanon%E2%80%99s-new-law-on-distributed-renewable-energy

¹¹³ Law No. 48/2017; The Public-Private Partnership Law, with Amendments in Law 181/2011. Available at: http://77.42.251.205/Law.aspx?lawId=273709

¹¹⁴ G. Baydoun, The Renewable Energy Law Eliminates the Monopoly of the Electricity Sector, LIMS, 2024. Available at: https://limslb.com/news-50569/

¹¹⁵ Law No. 462/2002, Article (1), Op.Cit.

The law gives the right of distribution to a "privatized company(ies)" whose purpose is to carry out all or some of the production and distribution activities, and to carry out its activities after obtaining a license granted by the regulatory authority.

Amending Article (7) of this Law four times¹¹⁶ has rendered the law ineffective as it mandated the temporarily substitution of the Regulatory Authority by the CoM only for granting permits and licenses for energy production, despite the vast and complicated powers attributed to the Regulatory Authority that cannot be reduced to only that extent.

National Energy Efficiency and Renewable Energy Action Financing Mechanism

The National Energy Efficiency and Renewable Energy Action (NEEREA) is a national financing mechanism, launched on 25 November 2010 based on Circular No. (236) of the EDL, listing terms and conditions to get subsidized green loans in collaboration with EU.

It is a joint initiative between the EDL in cooperation with MoEW and LCEC, designed to support green energy projects. It allows private sector entities to get subsidized loans for any type of energy efficiency and RE projects – in the residential, commercial, industrial, and non-profit sectors. ¹¹⁷.

By January 2015, it has been recorded that more than 200 project have been approved under NEEREA, with a total amount of more than \$250 million.

However, with the economic collapse and banking sector crisis that hit the country, since 2019 there have been severe limitations in the effectiveness and accessibility of NEEREA. The initiative is still listed as active, but implementation has slowed drastically.

Decision No. 318-32/2011; Net Metering Regulation

In 2011, EDL's Decision No. 318-32/2011 came as a billing mechanism that credits consumers producing RE to export the excess produced electricity to the national grid, which allows them to benefit from a discount on their electricity bill or what is known as "*Net Metering*".

According to the EDL website it defines Net Metering as "a process that allows a RE plant owner to export excess RE to the utility grid and benefit from a likewise deduction from the customer's electricity import/consumption bill. The net-meter tracks both energy consumed from the utility grid and the energy exported by the RE system and allows the utility to bill the customer based on the 'net' electricity consumed during the billing period set by EDL" 118.

This decision is still in effect, but isn't clearly harmonized with Law No. 318/2023.

Decree No. 8633/2012; Environmental Impact Assessment

This decree requires EIAs for large-scale energy projects, including solar farms, however enforcement is weak, many rooftop or mid-scale solar projects bypass review.

http://77.42.251.205/LawArticles.aspx?LawArticleID=1057578&LawID=197522

¹¹⁶ Amending Article (7) of Law No. 462/2002. Available at:

¹¹⁷ LCEC, Our Work – NEEREA. Available at: https://lcec.org.lb/our-work/partners/NEEREA

¹¹⁸ EDL, Net-Metering Decision No. 318-32/2011. Available at: http://www.edlnetmetering.com/

Law No. 244/2021; Public Procurement Law

This PPL (amended by Law No. 309/2023) applies to RE projects financed through public funds or partnerships, overseen by the PPA.

Law No. 318/2023; Regulating Distributed Renewable Energy Production

The rationale for the RE production law referred to as Law No. 318/2023 was distributed in the Electricity Policy Paper of 2010 where one of its main objectives was to provide one-third of the country's required energy through RE¹¹⁹.

Law No. 318/2023¹²⁰ was the first comprehensive legal framework for decentralized RE, in particular solar energy it allows the private sector to produce and sell RE in quantities of up to 10 megawatts. Additionally, households that have RE panels are allowed to implement an "energy exchange" with the EDL, where they put surplus electricity produced by RE systems on the public grid. The establishment of shared solar energy systems between neighboring buildings, universities, and residential buildings is also allowed provided they are located within the same geographical area. The owner of the same property in different real estate areas can benefit from the RE produced in one of his properties through the transfer of the RE produced.

Municipalities and unions of municipalities may establish solar fields and sell the energy produced from them either directly or through the private sector to their residents. In addition, producers and consumers have the right to complete direct purchase contracts without the intervention of third party like the ministry or the EDL. As for importing power from one region to another, it is also possible through EDL's network. In this case, a transit fee is imposed, to be paid by the consumer to the EDL.

However, the original draft of the law was amended to make its implementation contingent on the establishment of the still non-existent ERA, which should have been appointed since 2002, which has delayed the proper enforcement of this law.

Competent Authorities

There are various competent authorities with defined responsibilities in governing the RE sector:

The Ministry of Energy and Water

The MoEW is the main institution responsible for energy governance and directing the electricity sector. It is mainly responsible for 121 122:

- Set forth in final form the sector's general policy and general plan, examine the studies, put them in final forms and submit them to the CoM for adoption;

¹¹⁹ G. Bassil, Policy Paper for the Electricity Sector, 2010, Op. Cit.

¹²⁰ The Law Regulating DRE, No. 318/2023, The Lebanese University Center for Legal Informatics Research and Studies. Available at: http://77.42.251.205/Law.aspx?lawId=329310

¹²¹ MoEW, Powers and Duties of the MoEW. Available at: https://www.energyandwater.gov.lb/ar/details/100365/والمياه-الطاقة-وزارة-ومهام-صلاحيات

¹²² Law 462/2002, Article (6). Available at: http://77.42.251.205/Law.aspx?lawId=197522

- Propose the overall policy for the regulation of the electric power Production, Transmission and Distribution services, and oversee the implementation through the reports submitted to it by the Authority (ERA).
- Propose draft laws and decrees related to the electricity sector including those related to RE;
- Propose public safety and environmental guidelines and technical specifications required in the electrical facilities and installations;
- Carry out contracts with other countries;
- Take all authorized measures including the Distribution, according to the laws and contracts signed by the Government to deal with any failure in any activities of the electricity sector, which may have a negative impact on the sector's interest or Consumers' rights and interests;
- Propose the designation of the chairman and members of the Board of Directors of the ERA.

The Ministry of Environment

For RE projects, the MOE requires that all concerned stakeholders, including ministries, municipalities, and nongovernmental organizations be notified that an EIA is being prepared. 123.

The Electricity Regulatory Authority

The ERA was mandated by Law No. 462/2002 as an independent regulator, has the following duties and powers in accordance to Article $(12)^{124}$:

- Prepare decrees and regulation's projects related to the implementation of the provisions of the law;
- Promote the investment in the electricity sector to improve operational efficiency and guarantee the quality of the services and its good performance;
- Ensure and encourage competition in the electricity sector, supervise and control non-competitive tariffs and ensure the transparency of the market;
- Set the technical and environmental standards and rules governing the verification of compliance with standards and control their implementation;
- Determine the rules and standards of the Licenses and Authorizations;
- Issue, renew, suspend, amend and cancel Licenses and Authorizations;
- Prepare annual reports;

¹²³ Stakeholder Engagement Plan - Lebanon Renewable Energy and System Reinforcement Project (P180501), MoEW, 21 august 2024, page 5. Available at: https://energyandwater.gov.lb/mediafiles/Articles/doc-98282-2024 08 26 02 53 17.pdf
124 Law 462/2002, Article (12), Op. Cit.

- Take any decision, measure, or any other action specified in the present law and regulations in force.

After twenty three years, on 11 September 2025, ERA members where formally appointed, prior to this with the absence of an established and functional Authority the proper implementation of this Law and duties specified for the ERA, such as setting tariffs, granting licenses, enforce standards etc. were hindered.

The National Anti-Corruption Commission

Established by Law No. 175/2020¹²⁵, the NACC is an independent body dedicated to promoting transparency, accountability, and integrity within Lebanon's public sector. It plays a pivotal role in enforcing the Right of Access to Information Law and other key anti-corruption laws and measures¹²⁶.

The Public Procurement Authority

The PPA is mandated under the PPL No. 244/2021 and its amendment Law No. 309/2023, this Authority oversees government tenders across all sectors, including that of RE, to enhance transparency and promote accountability¹²⁷.

The Renewable Energy Governance Index

To assess the extent of governance in Lebanon's RE sector, and based on the mentioned fundamental principles of good governance, best practices and standards that must be adopted to ensure better governance of RE management to achieve sustainability.

Presented below is the "Renewable Energy Governance Index", designed as a diagnostic tool to help evaluate the quality of governance across the various components of Lebanon's RE landscape. In this paper, the index will be applied on the RE subsector "Solar Energy", to help identify strengths, gaps, and areas in need of reform, based on the indicator applied to it.

Index Structure and Scoring

The index is structured around the five fundamental governance principles outlined in this paper. Each principle has a column facing another one that includes:

- The indicators;
- Notes/Observations:
- References; and

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¹²⁵ Anti-Corruption Law in the Public Sector Law No. 175/2020. Available at: https://www.aldic.net/anti-corruption-law-in-the-public-sector-no-175-of-08052020-and-the-creation-of-a-national-commission-to-combat-corruption/

¹²⁶ UNDP, NACC Convenes High-Level Discussion on Strengthening the Right of Access to Information Law and Advancing Transparency in Lebanon in Partnership with UNDP, 2025. Available at: https://www.undp.org/lebanon/press-releases/nacc-convenes-high-level-discussion-strengthening-right-access-information-law-advancing-transparency-lebanon-partnership-undp

¹²⁷ International Trade Administration, Lebanon Country Commercial Guide: Selling to the Public Sector, 2024. Available at: https://www.trade.gov/country-commercial-guides/lebanon-selling-public-sector

- Score.

The indicators that fall under each principle - which must be adopted sufficiently to ensure adherence to the respective principle - are as follows:

- 1. Rule of Law (7 indicators);
- 2. Transparency (11 indicators);
- 3. Public participation (7 indicators);
- 4. Accountability (8 indicators);
- 5. Effectiveness and efficiency (11 indicators).

The total number of indicators is (44)

For each indicator, there is a corresponding column for **notes/observations** when applying the indicators on the Solar Energy Sector to highlight the rationale behind the score given.

Two additional columns are also provided, The first is dedicated for citing the **electronic source of information** (references). The second is dedicated for the **Score** assigned to the indicator based on its level of compatibility, categorized as follows:

- Compliant;
- Partially compliant; or
- Non-compliant.

A three-point scoring scale is used as follows:

Scoring	Model answer
2	Fully compliant
1	Partially compliant
0	Non-compliant

After the scores are assigned to each indicator, the total score for the principle is calculated by summing the individual indicator scores. The total is then converted into a percentage (%).

Upon completing the scoring for all principles, the subsector is given a final score - calculated by summing the total scores across all principles, this final score is also converted into a percentage and graded according the following grading scale:

Grading Scale

Percentage Range	Grade
Score between 81% - 100%	Very Strong
Score between 61% - 80%	Strong
Score between 41% - 60%	Average
Score between 21% - 40%	Weak

Limitations

The "Renewable Energy Governance Index" does not assess the extent to the laws and regulations are implemented in practice. Rather, it evaluates the level of adequacy and alignment of legal and regulatory provisions with the five principles of good governance, international best practices and standards for effective RE management – prior to implementation.

The index is only limited to assessing the **publicly available information.** Indicators are applied solely to information published through the official websites of public institutions and competent authorities. Internal documents or data held by these entities, but not disclosed publicly, are not considered. This approach reflects the principle that all regulatory and governance information related to RE should be transparent and publicly accessible.

Note: The Lebanese Center for Energy Conservation

The Lebanese Center for Energy Conservation (LCEC) is frequently cited in this Index, as it produces studies, data and awareness campaigns related to RE. However, its institutional status is not equivalent to that of a statutory government body. While it plays an active role in promoting RE through published studies, campaigns and technical support, its institutional status remains ambiguous.

Legally, LCEC is a registered non-governmental organization, based on the Recognition of Notification No. 172/2011¹²⁸, with an amended mandate published in the Official Gazette No. 2 on 11/01/2024¹²⁹ to broaden the scope of its objectives to cover: all matters related to RE (solar, wind, hydro, etc.), energy efficiency, energy conservation, rationalization of energy consumption and the energy transition; as well as assisting official authorities – particularly the MoEW – in drafting relevant legislation and to prepare, propose and update the NEEAP and NREAP.

According to the LCEC's website, it describes itself as "the national energy agency for Lebanon ... a not-for-profit organization within the MoEW ... acting as the technical arm of the Lebanese Government in energy efficiency and renewable energy matters" ¹³⁰. Similarly, the MoEW website refers to LCEC as "a governmental organization affiliated to the MoEW ... acts as the technical arm for the Lebanese Government" ¹³¹. This duality – a non-governmental organization under Lebanese law, yet publicly presented as a national

Establishment of a non-governmental organization named "Lebanese Center for Energy Conservation" based in Beirut. Notification of Recognition No. 172/2011. Available at: http://77.42.251.205/Law.aspx?lawId=227781

Notification of Recognition No. 1597/2023, Amendment of the Notification of Recognition No. 172/2011 for the 'Lebanese Center for Energy Conservation' Association. Available at: http://77.42.251.205/Law.aspx?lawId=329548

¹³⁰ LCEC, Our Identity, What is LCEC. Available at: https://lcec.org.lb/our-identity/what-is-lcec

¹³¹ MoEW, LCEC. Available at:

المركز - اللبناني-لحفظ - الطاقة/100374/www.energyandwater.gov.lb/ar/details/100374

energy agency while also stating it's a not-for-profit organization – created institutional uncertainty.

For this reason, references to LCEC outputs in this Index should be considered and understood as **supporting technical evidence** and **not as substitutes for official government publications, statutory mandates, or regulatory acts.** This distinction is essential to avoid overstating the formal role of LCEC in Lebanon's RE governance framework.

Renewable Energy Governance Index: Solar Energy

Principle	Indicator	Notes	Reference	Score
The Rule of Law	1. Existence of clear and comprehensive laws and regulations governing the renewable energy (RE) sector.	Key energy laws and decrees relevant to RE exist, most notably: - Law 462/2002; Regulating the Electricity Sector, that has laid down the foundation for the privatization and liberalization of the electricity sector from EDL's monopoly, and mandates the establishment of the Electricity Regulatory Authority (ERA) –after two decades, this Authority was absent, until the appointment of its member on 11 September 2025, however it is yet to be operationalized.; and - Law No.318/2023 Regulating Distributed Renewable Energy (DRE), allowing private sector participation in electricity production and sale. It vests significant powers and duties to the ERA - to oversee its implementation, including handling licensing – whose establishment is enshrined in Law No. 462/2002, It also mandates the establishment of the Directorate of RE within the EDL.	http://77.42.251.205/Law.aspx?lawId=197522 http://www.pcm.gov.lb/arabic/subpg.aspx?pa geid=26255 http://77.42.251.205/Law.aspx?lawId=329310	1/2

	While these laws establish an important legal foundation, they remain fragmented and lack secondary legislation needed to ensure clarity and comprehensiveness		
2. Existence of a legal framework that aligns with constitutional rights and international commitments.	Lebanon is party to the Paris Agreement – ratified by Law No. 115/2019, and submitted an updated Nationally Determined Contribution (NDC) in 2021 to achieve the target of 30% RE and reduce greenhouse gas emission by 2030. Moreover, Law No. 318/2023's explanatory memorandum states that this law aims to align with constitutional rights, international commitments, and promote a sustainable Energy Sector. The framework must ensure that RE projects and installations respect fundamental rights (such as right to access energy, right to a clean environment). Lebanon is also signatory to the UN Sustainable Development Goals (SDGs), notably Goal 7 on Affordable and Clean energy.	http://pcm.gov.lb/archive/j2019/j18/wfn/n115.htm http://77.42.251.205/Law.aspx?lawId=329310 https://climatechange.moe.gov.lb/negotiations https://www.un.org/sites/un2.un.org/files/ener gy_compact_lebanon_sep18.pdf	2/2
3. Clearly defined institutional roles	 Law No. 462/2002: Article (6) sets out the powers and responsibilities of the MoEW. 	http://77.42.251.205/Law.aspx?lawId=197522 http://77.42.251.205/Law.aspx?lawId=329310	1/2

	and mandates governing RE.	- Article (12) sets the jurisdiction of the ERA, including licensing and regulation of the electricity sector. Law No. 318/2023:		
		 Articles (2) to (7) further outlines the scope of authority between the ERA and EDL on the production and distribution of RE. Article (8) introduces the Directorate of RE, responsible for ensuring the proper implementation of this law and all RE management related requirements, whose structure and functions shall be determined by the CoM upon a proposal of the MoEW and a recommendation of the EDL. 		
		However, prior to appointing the ERA members,, in its absence ,for almost twenty three years, the CoM – on the recommendation of the MoEW and MOF – issues licenses.		
		The Directorate of RE also remains absent.		
4.		Law No. 462/2002 mandates the establishment of the ERA as an independent regulatory authority, and Law No. 318/2023	http://77.42.251.205/Law.aspx?lawId=197522 http://77.42.251.205/Law.aspx?lawId=329310	0/2

	reaffirms its mandate and assigns it with additional responsibilities and powers. However, for almost two decades the ERA was absent, the Authority's members were only appointed recently and the ERA was formally established – but it is yet to be operationalized. In the period of absence of the ERA Law No. 288/2014 was ratified – pursuant to Article (7) of Law No. 462/2002 - to give the CoM the ability to license independent power production, upon recommendations by the MoEW and MOF, for a two-year period until a regulatory authority is established, this Law has been extended by Law No. 139/2019.	http://www.pcm.gov.lb/arabic/subpg.aspx?pa geid=26255 http://77.42.251.205/LawArticles.aspx?LawA rticleID=1057578&LawID=197522	
5. The existence of a plan to promote public participation in the decisionmaking process.	There is no dedicated law or plan mandating public participation in RE decision-making. Public consultations are only formally required in the case of conducting EIAs, pursuant to Decree No. 8633/2012 , projects with significant impact must hold public consultations with potentially affected stakeholders during various stages of the EIA process.	http://77.42.251.205/LawView.aspx?opt=vie w&LawID=232686	1/2

6. Presence of fair, neutral and responsive dispute resolution mechanisms that are easy and accessible.	Law No. 462/2002, Article (12) — Paragraph 15, assigns under the ERA's responsibilities and powers to acts as a mediator and arbitration body to resolve disputes arising from the application of the provisions of Law No. 462/2002 between license holders, as well as working to amicably resolve disputes between distribution license holders and customers. Prior to appointing the ERA members, in the period of its absence - since 2002 until 2025 -, there were no fair, neutral and responsive dispute resolution mechanisms that are easily accessible, including the development of specialized expertise in environmental arbitration, innovative environmental procedures and treatments	http://77.42.251.205/Law.aspx?lawId=197522	1/2
	relevant to the RE Sub-Sector - Solar Energy.		
7. Existence of EIAs requirements for RE projects.	Decree No. 8633/2012 legally requires large RE projects to perform EIAs. The decree details a multi-stage assessment (scoping, review, approval) and obliges developers to conduct public consultations and consider feedback from participating stakeholders.	http://77.42.251.205/LawView.aspx?opt=vie w&LawID=232686 https://www.eia.nl/fr/pays/liban/legislation-at- project-level/	2/2

Section Total				8/14
Section Percenta	ge (%)			57.1%
Section Grade				Average
Transparency	1. Availability of published RE-related information (laws, decrees, policies, strategic plans, etc.) through official government websites.	There is no centralized portal or database for all updated and relevant information related to Solar Energy. Instead, documents are scattered around different websites, making them harder to access and locate. Key Laws governing RE, such as Law No. 462/2002 and Law No.318/2023 are accessible through the Official Gazette. RE-related documents and information (including news, decisions and instructions) are available through the MoEW and EDL, but the information is fragmented and not systematically updated. EDL's official website contains "Decisions" and "Bids" sections where it publishes certain announcements, procurement notices, and administrative decisions. However, information is fragmented, and not consolidated under a "Renewable Energy" section.	http://77.42.251.205/Law.aspx?lawId=197522 http://77.42.251.205/Law.aspx?lawId=329310 http://www.edl.gov.lb/index.php https://www.energyandwater.gov.lb/ar/details/100883/الخطة الوطنية النهوض المستدام بقطاع الكهربا في البنان الخطة الوطنية الله وض المستدام بقطاع الكهرباء http://www.energyandwater.gov.lb/ https://lcec.org.lb/publications	1/2

		MoEW official website publishes the following RE-information: - News; - The MoEW's powers and duties; - Strategic documents such as "Setting Lebanon's Electricity Sector on a Sustainable Growth Path – Policy Statement" is available in both, English and Arabic; - Law 462/2002 is published; however, Law 318/2023 is not published. Other strategic documents, including the National Renewable Energy Action Plan (NREAP) and the National Energy Efficiency Action Plan (NEEAP) – both done in collaboration between the MoEW and LCEC - are available online, on the LCEC website, but are not published on the MoEW website.		
2	2. Publication of information related to RE in a timely, accurate, and complete manner.	Information related to RE is often inconsistent, delayed or incomplete. MoEW and EDL provide occasional updates, but many RE-related announcements are either missing or outdated. For example, EDL's "Environmental Impact Study of the Photovoltaic Energy Project" is mentioned	https://www.edl.gov.lb/decisions.php?did=11 http://www.energyandwater.gov.lb/ https://www.energyandwater.gov.lb/ar/details/ 100365/ميات-ومهام-وزارة-الطاقة-والمياه-https://lcec.org.lb/our-work/LCEC/NREAP	1/2

on the website of EDL but when trying to access it, it's not available.

Throughout the data collection process, EDL's website was inaccessible in most cases, with no clear explanation provided. This may be due to technical issues or maintenance, but the lack of notice or clarification undermines transparency reliability.

The MoEW website has information missing under different sections, such as:

- "Departments and Units";
- "Ministry Projects";
- "Useful Websites"; and
- A question under "Questions and Answers" regarding the projects in the fields of energy efficiency and renewable energy in Lebanon.

The NREAP and the NEEAP were published on the LCEC website, but there has been no update or replacement action plan since 2020. Noting that the NREAP (2021-2025) is stated on the LCEC to be under development and "expected to be published by early 2021".

https://documents.worldbank.org/en/publication/documents-

reports/documentdetail/099082324154023289/p1805011b75e270f1af1e1df0e94366964

	LCEC provides more regular updates, but these don't substitute for official publications. Other RE information is usually accessible through international donor projects, such as WB and UNDP.		
3. Information is published in an accessible, user-friendly formats (searchable, downloadable, machine-readable).	The information available on the MoEW and EDL websites are clustered and not in a user-friendly manner, making RE news and announcements difficult to locate. Laws published by MoEW aren't available in a downloadable PDF format, and specifically Law No. 318/2023 isn't available on the website. Announcements and reports published by EDL are inconsistent – some documents are available in PDF, but others, are missing.	http://www.energyandwater.gov.lb/ https://www.edl.gov.lb/decisions.php https://lcec.org.lb/	0/2
4. Information related to RE is disseminated in clear language, in appropriate forms that are easily understood by the	MoEW doesn't publish much information related to RE, it seems that it relies on the LCEC to publish such information, labeling it as the "technical arm of the Ministry in all issues related to energy efficiency, RE and green buildings". EDL publishes some information, especially that related to Net Metering, available in	https://www.energyandwater.gov.lb/ar/details/ 100374/غاليناني-لحفظ-الطاقة/ https://www.energyandwater.gov.lb/ar/listing/ e-services/guidlines?l=4 http://edlnetmetering.com/arhttps://lcec.org.lb/publications https://lcec.org.lb/publications	1/2

average person and not only specialists.	both English and Arabic, in an easily understood language.		
	LCEC posts some guidelines and brochures related to RE that are easily understood by the average person, however this information is only available in English.		
	Updates published on LCEC are usually not found on the MoEW or EDL website, and are only published in English, which diminishes accessibility to reach the broader targeted audience.		
5. Publication of awarded contracts and tenders in the RE sector.	EDL publishes ongoing tenders and awarded contracts through it "Bids" portal on its official website, including calls related to RE projects, outlining contract timelines, processes and statuses. However, many of the documents published aren't accessible. Other tenders are found on the official PPA website.	http://www.edl.gov.lb/bids.php https://www.ppa.gov.lb/	1/2
6. Publication of institutional budgets and spending reports for RE projects.	MoEW and EDL do not publish disaggregated budgets for RE.	http://www.energyandwater.gov.lb/ https://www.edl.gov.lb/decisions.php	0/2

	Broader institutional financial reports are either outdated or unavailable, and there is no clear allocation for RE spending. LCEC does not publish budgetary data.		
7. Accessibility of environmental and social impact assessments (ESIAs) for RE projects.	Decree No. 8633/2012 requires EIAs for projects with significant environmental impacts, but these are not published by MoEW. Donor-funded projects, such as WB's Lebanon Renewable Energy and System Reinforcement Project, disclose ESIAs in line with safeguard requirements. Highlighting weak access depending on donor practice rather than national institutions.	http://77.42.251.205/LawView.aspx?opt=vie w&LawID=232686 https://documents1.worldbank.org/curated/en/ 099082324154023289/pdf/P180501- b75e27dd-d608-4e0f-af1e-df0e94366964.pdf	1/2
8. Publication of licensing and permitting requirements, procedures and decisions.	Licensing procedures exist under Law No. 318/2023, along with some ministerial decisions published in the Official Gazette. However, MoEW and EDL don't maintain a consolidated online database of licensing requirement, procedures, or awarded licenses.	http://77.42.251.205/Law.aspx?lawId=329310	1/2

9. Information is published while leaving sufficient time to allow data and the public in general to analyze and respond to opinions and suggestions.	No legal or institutional framework requires the advance publication of RE-related information to allow public review or feedback. Information is usually released after adoption, leaving no time for meaningful engagement.	http://www.energyandwater.gov.lb/	0/2
10. Presence of Beneficial Ownership (BO) Register for RE Licensees.	Currently, there is no public, searchable BO registry that is maintained or accessible via MoEW or any other official body. While Law No. 189/2020 on Asset Declaration and Illicit Enrichment requires public officials to declare assets, this doesn't apply to private companies in the RE sector. Moreover, Law No. 318/2023, Article (6) section (3) states, as part of the ERA's monitoring, the Authority shall receive information required from the DRE producers regarding financial and technical data of their operating RE systems and any other information, which in hindsight should include BO-related disclosure information.	http://77.42.251.205/Law.aspx?lawId=285832 &language=ar http://77.42.251.205/LawView.aspx?opt=vie w&LawID=329310 http://77.42.251.205/Law.aspx?lawId=329310	0/2

	11. The "public interest test" applies to information that could be excluded from access upon request.	The Access to Information Law No. 28/2017 provides for certain exemptions but doesn't require balancing disclosure against public interest. As such information may be withheld affecting RE-related transparency.	https://nacc.gov.lb/wp-content/uploads/2023/11/P1E-Access-to-Information-Law-28.2017.pdf http://77.42.251.205/Law.aspx?lawId=269965 &language=ar	0/2
Section Total				6/22
Section Percente	age (%)			27.27%
Section Grade	Section Grade			Weak
Public Participation	1. Existence of legal or policy frameworks guaranteeing the right to participate in RE decisionmaking.	No formal legal or policy framework that guarantees public participation in REspecific decision-making. Public participation is only explicitly required in cases of conducting EIAs as per Decree 8633/2012. In 2024, under the Lebanon RE and System Reinforcement Project by the WB, the Stakeholder Engagement Plan (SEP) was prepared to define the program for stakeholder engagement to be implemented by EDL and Litani River Authority (LRA).	http://77.42.251.205/LawView.aspx?opt=vie w&LawID=232686 https://energyandwater.gov.lb/mediafiles/Articles/doc-98282-2024_08_26_02_53_17.pdf	1/2

	Participation is therefore limited to donor-driven consultations or EIA procedures.		
2. Public notifications are issued in advance (in a specific time frame) to the public about the laws, decrees, decisions, strategies and policies related to RE topics.	There is no legal obligation requiring MoEW and EDL to issue public notifications in advance regarding RE policies or decisions.	http://77.42.251.205/Law.aspx?lawId=197522 http://77.42.251.205/Law.aspx?lawId=329310	0/2
3. Providing the necessary information, including studies and substantive reasons about laws, decrees, accuracy, strategies and policies related to RE issues that are intended to be prepared when beginning to work on them.	There is no mechanism available requiring official institutions to provide background studies or impact assessments during the formulation of RE policies or laws. Strategic decisions (e.g. on met metering, Law No.318/2023) were finalized and announced without fully supported studies or explanatory documentation.	http://77.42.251.205/Law.aspx?lawId=197522 http://77.42.251.205/Law.aspx?lawId=329310 http://www.edl.gov.lb/decisions.php?did=4 https://www.lcps- lebanon.org/en/Articles/details/4853/monitor- %7C-regulating-the-energy-transition- lebanon%E2%80%99s-new-law-on- distributed-renewable-energy	0/2
4. Targeted efforts to include marginalized	There are no documented efforts or formal published strategy to include marginalized	No available information.	0/2
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or vulnerable groups in consultations.	groups in RE-Solar Energy related consultations.		
5. Opening the door, within an appropriate time frame, to the public and stakeholders to provide their feedback and/or suggestions about what official entities intend to do regarding the specified topic.	Feedback mechanisms are limited and not institutionalized.	No available information.	0/2
6. Clear procedures for stakeholder engagement at all three OECD participation levels (information, consultation, active engagement).	Lebanon lacks institutional frameworks for stakeholder engagement aligned with OECD's 3-tier model (info, consultation, active engagement). No consultation platforms exist, and no framework exists for active engagement in RE decision-making.	https://www.oecd.org/content/dam/oecd/en/publications/reports/2020/12/open-government-scan-of-lebanon_b6565107/d7cce8c0-en.pdf	0/2
7. Awareness-raising campaigns informing the public about their participatory rights.	There are no government-led awareness campaigns on public participatory rights. Some awareness campaigns on solar installations exist (e.g. LCEC, UNDP), but	https://lebanon.un.org/en/232949-un-habitat- partners-lcec-expanding-efforts-provide- responsible-renewable-energy-solutions	0/2

		they focus more on technical solar aspects, not governance or participatory rights in the decision making process.	https://www.unescwa.org/events/use- renewable-energy-and-energy-efficiency- technologies-and-applications-rural- development-0	
Section Total				1/14
Section Percenta	ge (%)			7.14 %
Section Grade				Very Weak
Accountability	1. Clarity in the distribution of responsibilities to the relevant official bodies and the competence to act in the context of the implementation of the government's activities through the existence of relevant laws and regulations and the publication of the validity of the body concerned.	Law No. 462/2002 and Law No. 318/2023 clearly define the mandates and responsibilities of relevant official bodies, particularly the MoEW and the ERA. The ERA was formally established on 11 September 2025; however, it remains non-operational, which continues to hinder the effective implementation of the Law.	http://77.42.251.205/Law.aspx?lawId=197522 http://77.42.251.205/Law.aspx?lawId=329310 &language=ar http://www.pcm.gov.lb/arabic/subpg.aspx?pa geid=26255	1/2

2. Presence of an independent regulatory authority with oversight powers over RE policies and implementation.	The ERA was mandated under Law No. 462/2002 to function as an independent authority, with further mandates in Law No. 181/2011 and reiterated in Law No.318/2023, was non-existent for almost twenty-three years leaving the RE sector without an effective independent oversight body. The Authority was formally established on 11 September 2025 appointing the dedicated members, but remains non-operational for the time being.	http://77.42.251.205/Law.aspx?lawId=197522 http://77.42.251.205/Law.aspx?lawId=229434 http://77.42.251.205/Law.aspx?lawId=329310 &language=ar http://www.pcm.gov.lb/arabic/subpg.aspx?pa geid=26255	1/2
3. Available mechanisms for citizens, CSOs or media to report misconduct or corruption in RE projects.	No sector-specific reporting platforms exist. General anti-corruption mechanisms exist under Law No. 175/2020 and through the NACC, that provides a channel for complaints. Additionally, complaints may be submitted through the MoEW official website.	http://77.42.251.205/Law.aspx?lawId=285507 https://www.energyandwater.gov.lb/ar/claims https://nacc.gov.lb/	1/2
4. Presence of effective mechanisms to reduce and prevent all forms of	While Anti-Corruption laws exists (Anti-Corruption Law No. 175/2020; Whistleblower Protection Law No. 83/2018), but no dedicated RE sector implementation.	http://77.42.251.205/Law.aspx?lawId=285507 http://77.42.251.205/Law.aspx?lawId=278575 &language=ar	1/2

	corruption offences in the RE sector.	Public procurement is overseen by PPA.	http://77.42.251.205/Law.aspx?lawId=288693 &language=ar	
5.	Presence of a formal, public plan – approved by the CoM or MoEW – that sets targets, timelines and budgets for preventing corruption in RE licensing, procurement and supervision,	There is currently no formal, public anti- corruption plan related to RE. There is no record of the CoM nor MoEW to adopt a strategic anti-corruption framework for RE licensing, procurement and/or supervision.	No available information.	0/2
6.	Presence of Whistle-Blower Reporting Route & Disclosure of Statistics in the RE sector.	Whistleblower Protection Law No. 83/2018, creates a national reporting mechanism managed by the NACC. Even though this law doesn't oblige each Ministry to run its own channel, best practices and international standards recommend that ever high-risk sector must provide an easily found link to the NACC mechanism and publish basic utilization data. The MoEW doesn't contain a clear prominent link within its website. No	http://77.42.251.205/Law.aspx?lawId=278575 &language=ar https://nacc.gov.lb/	0/2

	statistics on RE-related complaints are publicly available.		
Availability of an Illicit Enrichment Regime that includes: proactive asset disclosure of public employees and access of competent authorities to these disclosures.	Law No. 189/2020 relating to the declaration of assets and other interest and the punishment of illicit enrichment, Articles 2 and 3 address asset disclosure of public employees and access of competent authorities to these disclosures. There is no available public information on the number of employees at the MoEW that have to declare their assets, nor is there any available information of the employees at the MoEW that have submitted their disclosures.	http://77.42.251.205/Law.aspx?lawId=285832 &language=ar	1/2
Presence of an annual report on integrity and governance in RE.	Article (6) section (4) of Law No. 318/2023, requires MoEW (and later the ERA) to publish an annual public report on implementation, including "obstacles observed and suggestions for improvement". Also, there is no such annual report published by MoEW or the LCEC. Such reports should also include – based on international standards such as IMF Fiscal	http://77.42.251.205/Law.aspx?lawId=329310 https://www.imf.org/external/np/fad/trans/Co de2019.pdf https://eiti.org/eiti-standard	0/2

		Transparency Code and the EITI Standard –, the following: (i) BO register compliance rate; (ii) Publication status of RE tenders and contracts; (iii) Data on whistleblower reports or activity; and (iv) Remedial measures undertaken.		
Section Total				5/16
Section Percente	age (%)			31.25 %
Section Grade				Weak
Effectiveness and Efficiency	1. Availability of technical training programs for government staff working on RE, that undergo periodic training to develop their capacities and evaluate their performance as peers and groups.	No institutionalized, periodic training programs exists for MoEW or EDL staff specifically for RE. Some capacity building has occurred through donor-funded workshops, where LCEC hosted training workshops in collaboration with other organizations (such as UNDP, IRI, RCREEE) for Solar PV technicians and engineers.	ttps://lcec.org.lb/search/lcec?keys=training	0/2

2.	The existence and implementation of organizational values that are consistent with, and help to strengthen, RE governance standards.	No publicly available internal governance values or standards tailored to RE in MoEW or EDL.	No available information.	0/2
3.	Accuracy and transparency in decision-making; Making information available and holding effective public consultations; and effective risk management.	Decision-making in the solar RE sector remains opaque; public consultations are rare as well as risk management frameworks, except where donor projects impose safeguards.	https://www.undp.org/lebanon/publications/derisking-renewable-energy-investment-lebanon	0/2
4.	Clarity on the objectives of the relevant public bodies and the objectives associated with the specific process and the desired results	Law No. 462/2002 outlines ERA's objectives; Law No. 318/2023 defines MoEW's scope in DRE. However, with a non-operational ERA, institutional objectives remain unclear in practice.	http://77.42.251.205/Law.aspx?lawId=197522 http://77.42.251.205/Law.aspx?lawId=329310 &language=ar	1/2

for the public and stakeholders.	Stakeholders have limited visibility on institutional performance or responsibility.		
5. Effective involvement of the private sector and civil society organizations in the decision-making processes.	No available information on the effective involvement of private sector and CSOs in the decision making process.	No available information.	1/2
6. Clear mandates and responsibilities among key institutions.	Legal roles for the ERA and are outlined under Law No. 462/2002, and Law No. 318/2023 for the MoEW and the private sector, however, with a non-operational ERA they remain unimplemented effectively.	http://77.42.251.205/Law.aspx?lawId=197522 http://77.42.251.205/Law.aspx?lawId=329310 &language=ar	1/2
7. Existence of formal mechanisms for inter-agency coordination	No standing committee or inter-agency coordination platform is active for RE or solar energy specifically.	No available information.	0/2
8. Coordination between national, municipal, and local authorities on RE planning.	No provisions exist for vertical coordination in RE planning. Municipalities may coordinate and engage in donor-driven solar projects, however this is not coordinated through MoEW.	No available information.	0/2

Section Grade				Very Weak
Section Percentage (%)				18.18 %
Section Total				4/22
	11. Monitoring and evaluation (M&E) systems that inform policy improvements and timely responses.	There are no institutionalized M&E systems for RE policies. Neither NREAP or NEEAP include structured monitoring with published progress reports. Donor-led projects produce some evaluations, however they are external an not government-led.	https://www.undp.org/publications/drei- lebanon	1/2
	10. Availability of response protocols for operational, financial, or environmental challenges.	No official protocols exist for grid integration, financial sustainability, or environmental risks in solar energy.	No available information.	0/2
	9. Shared data platforms or registries for RE project tracking.	No official unified registry or shared platform exists. EDL and MoEW don't publish comprehensive RE project data.	No available information.	0/2

Index Total	24/88
Index Total Percentage (%)	27.27%
Index Total Grade	Weak

Solar Renewable Energy Subsector in Lebanon

Over the past decade, the RE sector in Lebanon – particularly solar energy- has gained visibility in response to the country's energy crisis, where many individuals, municipalities, institutions and private businesses resorted to installing solar energy panels as an alternative to unreliable, inconsistent and expensive electricity from the grid and private generators.

Despite this growing reliance on solar systems the sector remains heavily under regulated and fragmented. The root of the problem lies in the broader political and administrative context: between 2005 and 2023, where Lebanon has endured long periods of institutional paralysis and different crises.

Even with the existence of a legal framework governing RE, most notably Law No. 462/2002 and Law No. 318/2023, their remains failure to establish and operationalize –a key regulatory body; the ERA, which has left the sector without strategic direction or oversight. Along with other serious administrative and capacity challenges.

Solar power has rapidly expanded out of necessity, but without a robust governance framework, the sector risks becoming a patchwork of disconnected efforts, disregarding safety issues, regulatory conflicts, and environmental risks.

This is why the "Renewable Energy Governance Index" was developed within this paper and applied to the RE subsector: Solar Energy - to assess its alignment with the fundamental principles of good governance and the extent of commitment to best practices. In order to identify structural and regulatory gaps that must be addressed to support a sustainable and inclusive energy transition in Lebanon.

The RE subsector: Solar Energy received 23/88 points, meaning 27.27% of commitment to best practices embodied in the principles of RE sector governance, with a grade of "Weak".

These points were distributed among the five principles within the index as follows:

Principle	Score	Compliance Percentage (%)	Degree
Rule of Law	8/14	57.1%	Average
Transparency	6/22	27.27%	Weak
Public Participation	1/14	7.14%	Very Weak
Accountability	5/16	31.25%	Weak
Efficiency & Effectiveness	4/22	18.18%	Very Weak
Grand Total	24/88	27.27%	Weak

We detail the extent to which each principle is adhered to separately in the following terms:

Rule of Law

Under the Principle Rule of Law, the RE subsector – Solar Energy in Lebanon scored 8 out of 14 points, a compliance rate of 57.1%, placing it in the "Average" band. Even with such an average score, this principle is the highest scoring one among all five assessed principles.

These points were distributed among seven indicators, fully compliant in three areas, reflecting the presence of several important legal instruments:

- Law No. 432/2002 that mandates the establishment of an independent ERA and assigns regulatory functions;
- Law No. 318/2023 was issued to regulate DRE, assigning further duties and powers to the ERA:
- **Decree No. 8633/2012** that established EIA requirements for projects with potential environmental impacts.

Nevertheless, this principle's lower percentage is largely attributed to non-compliance across three core areas:

- The continued absence of a functional, operational independent ERA, despite its mandated establishment under Law No. 462/2002 and Law No. 318/2023, and recent appointment of its member on 11 September 2025.
- The absence of a public participation framework for solar RE decision-making, with participation occurring only on an ad hoc basis through EIA consultations mandated by Decree No. 8633/2012. No sector-specific dispute resolution mechanisms in place with the absence of the ERA, and no specialized environmental arbitration or accessible recourse procedures;

Despite all principles of RE governance being equal in terms of their importance, they warn of multiple risks that may affect this sector. Failure to respect the rule of law may undermine the entire legal framework even if this framework fully achieves all other principles of RE sector governance. The existence of laws without respecting and implementing them does not lead to achieving the desired results.

Transparency

The solar energy sector in Lebanon scored 6 out of 22 under the principle of transparency, a compliance rate of 27.27% thereof rated as "Weak".

The RE subsector - Solar Energy exhibits very weak transparency, which in return, hinders public oversight and trust in decision-making. This is due to various factors:

- Official data concerning solar installations are rare, neither EDL nor MoEW publish comprehensive solar data including statistics or licensing information to the public.
- Publication of solar energy related documents through official platforms (MoEW and EDL) include laws, action plans, news, announcements, brochures, and reports, but are either difficult to locate, only available in English, and other expected documents are missing or incomplete.

- ESIAs for solar projects are rare, either unpublished or not easily accessible for the public.
- Pursuant to Article (6) section (3) of Law No. 318/2023, there is currently no publicly accessible BO Register for RE licensees. This lack of centralized or searchable online register that currently exists within the MoEW or any other competent body significantly limits transparency, and limits the public's ability to verify who is benefiting from RE licenses, raising concerns of hidden interests, favoritism, and potential corruption.
- Procurement disclosure has improved in part, EDL posts procurement notices on its official bids portal for specific projects, but publishing final awarded contracts, full contract terms and RE budget information remains inconsistent, so contractual and financial transparency remains weak.

Another main challenge for transparency in this area, is the Ministry's inability to apply the "public interest test" since Article (5) of Law No. 28/2017; The Right to Access to Information Law, which specifies exceptions to the right to access information, does not allow its application. The inability to apply this test constitutes the fundamental challenge to the transparency of environmental information in general and that related to the RE – Solar Energy subsector in particular. This Article, which excludes trade secrets from access, can be used to prevent access to necessary environmental information such as that available in environmental impact studies, which the public interest requires making available due to the environmental risks that could occur to society as a whole if it is withheld.

Public Participation

The solar energy sector scored 1 out of 14 points distributed into seven indicators under this principle, with a compliance rate of 7.14%, with a "Very Weak" grade, scoring the lowest among all five principles. demonstrating an almost complete absence of systematic participatory processes in RE decision-making.

In Lebanon there is no law for public consultations that obliges official bodies to organize consultations, and therefore the door is not opened for the participation of stakeholders and the public to submit their observations and/or suggestions about alternatives to what the official bodies intend. To be carried out in relation to topics related to the RE sector or any other sector.

While Decree No.8633/2012, that regulates EIAs and requires performing public consultations during the review process of certain projects that may include energy projects, however, it is limited and inconsistent, as there hasn't been reports of conducting such consultations in regards to solar energy installations.

Donor-funded projects occasionally may engage with stakeholders through conferences, awareness campaigns or workshops, but these aren't considered as public consultations necessary in the decision-making process, nor do they substitute for a government-wide participatory framework; such as the recently introduced SEP under the 2024 Electricity Sector recovery project that remains limited in scope and application to distributed solar.

The absence of digital tools or scoping phases as shown in best practice countries (such as in Denmark and Scotland) further weakens the ability to participate effectively with no guarantee of equal access and inclusiveness in public participation.

Accountability

The Solar Energy sector received 5 out of 16 points under the principle of accountability, a compliance rate of 27.27%, graded as "Weak". These points were distributed among eight indicators, of which level of compliance with four of them was fully non-compliant, and only partially compliant with three of the indicators.

Lebanon possesses a set of general-purpose anti-corruption laws, but these are not tailored specifically to energy governance and are weakly enforced in practice. The single most consequential accountability gap is institutional: the ERA, mandated by Law No. 462/2002, has not been operationalized for over two decades, producing overlap between MoEW and EDL and leaving insufficient sectoral oversight. However, the Authority was recently established with the appointment of its members, that marks an important first step. Yet, until it is fully operationalized, the structural accountability gap in the Energy and RE sector will persist.

Assessing the availability of mechanisms for citizens, CSOs, or the media to report misconduct or corruption in RE projects, is partially compliant, due to the existence of general, but not sector-specific channels through the MoEW and the NACC. However, there remains no specific platform tailored to the RE sector.

Regarding the presence of mechanisms to reduce and prevent corruption in RE governance, this indicator was partially compliant, as legal frameworks exist to combat corruption in the public sector through the following laws:

- 1. Law No. 175/2020; The Anti-Corruption Law in the Public Sector and the Establishment of the National Anti-Corruption Commission;
- 2. Law No. 28/2017; The Right to Access to Information Law and its Amendment Law No. 233/2021, and its Implementing Decree No. 6940/2020;
- 3. Law No. 83/2018; Law on the Protection of Whistleblowers and its Amendment Law No. 182/2018;
- 4. Law No. 84/2018; Law to Support Transparency in the Petroleum Sector;
- 5. Law No. 189/2020; Law relating to the Declaration of Assets and Other Interests and the Repression of Illicit Enrichment;
- 6. Law No. 214/2021; Law on the Recovery of Funds Generated from Corruption Crimes.

Despite the presence of these laws, they remain either poorly implemented or not implemented at all, making the process of combating corruption crimes within the RE sector in general, and the Solar Energy subsector in particular, largely ineffective.

Concerning Integrity within the RE Sector and the presence of an Anti-Corruption Plan, this indicator was non-compliant, with the absence of a formal, public Anti-Corruption Plan approved by the CoM or MoEW specific to the RE sector, showcasing a fragmented

approach to corruption prevention, with the lack of clear timelines, targets, and allocated resources.

Whistleblowing reporting on the other hand was considered partially compliant. As a national mechanism exists through the NACC, however, the MoEW and related agencies don't explicitly display a reporting link via their websites, nor do they publish annual statistics on sector-specific reports.

Moreover, the indicator concerning the presence of an annual report on integrity and governance in RE scored a zero, as no such report has been published to date. Even though Article (6) section (4) of Law No. 318/2023 mandates the preparation of such report, including "obstacles observed and suggestions for improvement", and based on international best practices and standards this obligation extends to includes integrity-related indicators, particularly in high-risk sectors. Accordingly, the report should at a minimum include:

- (i) Beneficial ownership (BO) register compliance rate,
- (ii) Publication status of RE tenders and contracts,
- (iii)Data on whistleblower reports or activity, and
- (iv)Remedial measures undertaken.

Concerning illicit enrichment and asset-declaration frameworks, they exist legally, but enforcement is weak and no targeted application to energy sector officials or licensees is evident; BO opacity in licensees further complicates accountability.

Effectiveness and Efficiency

In terms of effectiveness and efficiency, the Solar Energy sector earned 4 out of 22 points, a compliance rate of 18.18%, with a "Very Weak" rating. These points were distributed among eleven indicators.

While statutory mandates and strategic objectives may exist on paper. Institutional capacity, coordination mechanisms and monitoring frameworks are largely absent or donor-dependent, this is evident through:

- Lack of institutionalized, periodic technical training programs for the MoEW and EDL personnel on RE governance; most capacity building has been delivered through donor-funded project (e.g. UNDP), however not directed towards this audience, rather they were more specific for technicians and engineers.
- Organizational values, clear decision-making protocols and risk-management procedures specific to RE are not published or systematically applied; the non-operational status of the ERA further slows down decision processes.
- Lack of clarity and responsiveness in the decision making process. Strategic documents such as NDC commitments for example, that sets overall targets, it is not accompanied with detailed implementation plans.
- Private sector and CSO engagement in RE planning remains limited. While the private sector has been involved in installing solar PV systems out of necessity in the past few years they remain largely excluded from policy discussions or monitoring roles.

- There is no clarity in the relationship between the state and its agencies on one hand and the public on the other, and there is no legal framework for public consultations in Lebanon, which makes these consultations, if they occur, dependent on the pure will of the administration to involve the public or not, which could undermine the implementation of any law or policy that is passed or until the public and stakeholders are excluded from the decision-making process.
- There is no centralized, official registry or shared data platform tracking solar installations, capacities, licenses or performance metrics.
- M&E arrangements for national RE plans were not institutionalized; progress reporting, KPI publication and M&E-driven policy adjustments are therefore weak or absent, reducing the government's ability to manage implementation risk and to learn from projects.

Conclusions and recommendations

Conclusions

There is no doubt that the governance of Lebanon's RE sector – particularly in the Solar Energy subsector – remains fundamentally weak. Despite the country's targets of achieving 30% RE electricity generation by 2030, energy transition has occurred largely in the absence of proper governance structures, regulatory enforcement and institutional clarity.

In this paper, we presented the Lebanese electricity reality in general, and then the five foundational fundamental principles of good governance (Rule of Law, Transparency, Public Participation, Accountability, and Effectiveness and Efficiency) for the RE sector based on international standards and best practices in this field, which led to the development of the "Renewable Energy Governance Index", a structured diagnostic tool based on these five principles that can be applied to any of its different subsectors to assess the strengths and gaps that need to be addressed.

As a result of applying the index to the RE subsector – Solar Energy in Lebanon as a case study, many weak points were identified that must be developed to strengthen governance within the sector, which will reflect positively on the level of Solar Energy management at the Lebanese level as a whole.

Although the sector received the highest score under the principle of rule of law, the score was relatively still weak within the index, other indicators that are not available within the sector under this principle which are essential to serve the goal of adopting a proper rule of law, most notably the operationalization of the ERA to implement regulatory mandates critical for licensing, oversight and standardization.

As for the principle of Transparency, it remains limited. While some RE-related documents are published, other crucial data is remains inaccessible, difficult to analyze, not available in Arabic, or is outdated.

The principle of public participation – the weakest recorded principle -, which highlights the necessity to work on creating a comprehensive legal framework that regulates public consultations and to oblige public administrations with powers in what concerns RE, to conduct consultations without this being dependent on the will of those in a position of responsibility.

Accountability mechanisms are also virtually absent, with no operational regulator (ERA) and minimal anti-corruption oversight.

Meanwhile, the principle of Effectiveness and Efficiency, reflected absent coordination, no shared databases, lack of capacity-building to ensure competence, and nonexistent monitoring management systems.

Recommendations

After presenting the best practices and international standards for the governance of RE sector and applying the "Renewable Energy Sector Governance Index" to the Solar Energy subsector in Lebanon, we present below the recommendations per principle stating the

stakeholder responsible for that recommendation that must be followed to strengthen the governance of this subsector to push towards developing its management based on the principles within the index.

Rule of Law

Parliament

- Clarify institutional mandates to reduce overlap between EDL and MoEW.

CoM

- In collaboration with the ERA, operationalize the ERA mandated under Law No. 462/2002, to ensure sectoral oversight, licensing, monitoring, and regulatory enforcement.
- Issue implementing decrees for Law No. 318/2023.

• ERA (once operational)

- Ensure sectoral oversight, licensing, monitoring, and regulatory enforcement.
- Develop sector specific dispute resolution mechanisms.

MoEW

- In collaboration with the ERA, develop a plan to enhance public participation in the decision-making process regarding the RE sector.

Transparency

MoEW and ERA

- Publish information within a centralized digital database that enables the individual to search for specific information, provided that the published information is machine-readable, searchable, and downloadable.
- Publish procurement notices, awarded contracts and results of tenders for RE projects including Solar Energy.
- Ensure timely, accurate and purposeful publication of information, particularly prior to policy decisions or possible legal reforms that require public consultations, allowing sufficient time for public engagement.

MoF

- In collaboration with the ERA, operationalize BO disclosure obligation by establishing a public, regularly updated, searchable online register of BO of all licenses RE operators, that is accessible through an official government website.

• Parliament

- Amend Article (5) of **Law No. 28/2017**; Right to Access to Information Law, to allow public administrations to apply the public interest test when the administration has information that falls within the scope of exceptions and the public interest requires its publication.

Public Participation

Parliament

- Adopt the necessary legal framework to organize mandatory public consultations specific to the RE sector when preparing relevant laws and regulations.

• MoEW and ERA

- Institutionalize stakeholder engagement relying on best practices by publishing clear timelines, objectives, and methods of contribution.
- Inform the public about the approved deadlines for working on laws and regulations related to the RE sector when preparing them.
- Provide information, whether studies, statistics or another type of information, on which to rely on the laws and regulations intended to be implemented related to the RE sector.
- Open the door for stakeholders and the public in general to participate in public consultations and submit their comments and/or suggestions on what official bodies intend to do regarding topics related to the RE sector.

• Municipalities and CSOs

- Engage in RE planning processes to ensure localized inclusiveness especially from marginalized groups.

Accountability

MoEW and ERA

- Clarify mandates and publish institutional structures for key actors involved in the RE sector, to reduce overlap, eliminate confusion and improve inter-agency collaboration.
- Establish a formal effective complaints mechanism that allows citizens, CSOs, and the media to report possible acts of corruption and violations.
- Require periodic performance and financial audits of RE projects, with results published publicly. **ERA** (once operational)
 - Develop and adopt a formal Sector Integrity and Anti-Corruption Plan for the RE Sector, with measurable targets, timelines, and budget allocations.
 - Publish an Annual Integrity Report to include key accountability metrics such as, BO register compliance rates; Procurement and tender publication status; Whistleblower activity and reporting outcomes; and any remedial or institutional reforms undertaken.

Effectiveness and Efficiency

• MoEW and ERA

- Clarify the relationship between the government and its agencies on the one hand and the public on the other hand by making available the necessary and relevant information about the RE sector in terms of public consultations, the method of participating in them, and how to submit proposals and their fate to the official authorities.
- Subject public employees, both appointed and elected, to periodic training to develop their capabilities on RE governance, and to evaluate their performance as individuals and as a group.
- Establish shared information platforms to track solar installation, grid integration, and investments.
- Clarify the objectives of official bodies related to the RE sector.
- Institutionalize M&E systems tied to KPIs and policy outcomes, that should be updated and published annually and publicly reviewed.