Resilience in energy, infrastructure and natural resources law: examining legal pathways for sustainability in times of disruption

Biennial Conference of the Section on Energy, Environment, Natural Resources and Infrastructure Law (SEERIL) 2022: Resource development at a crossroads

Bocconi School of Law, Milan, Italy

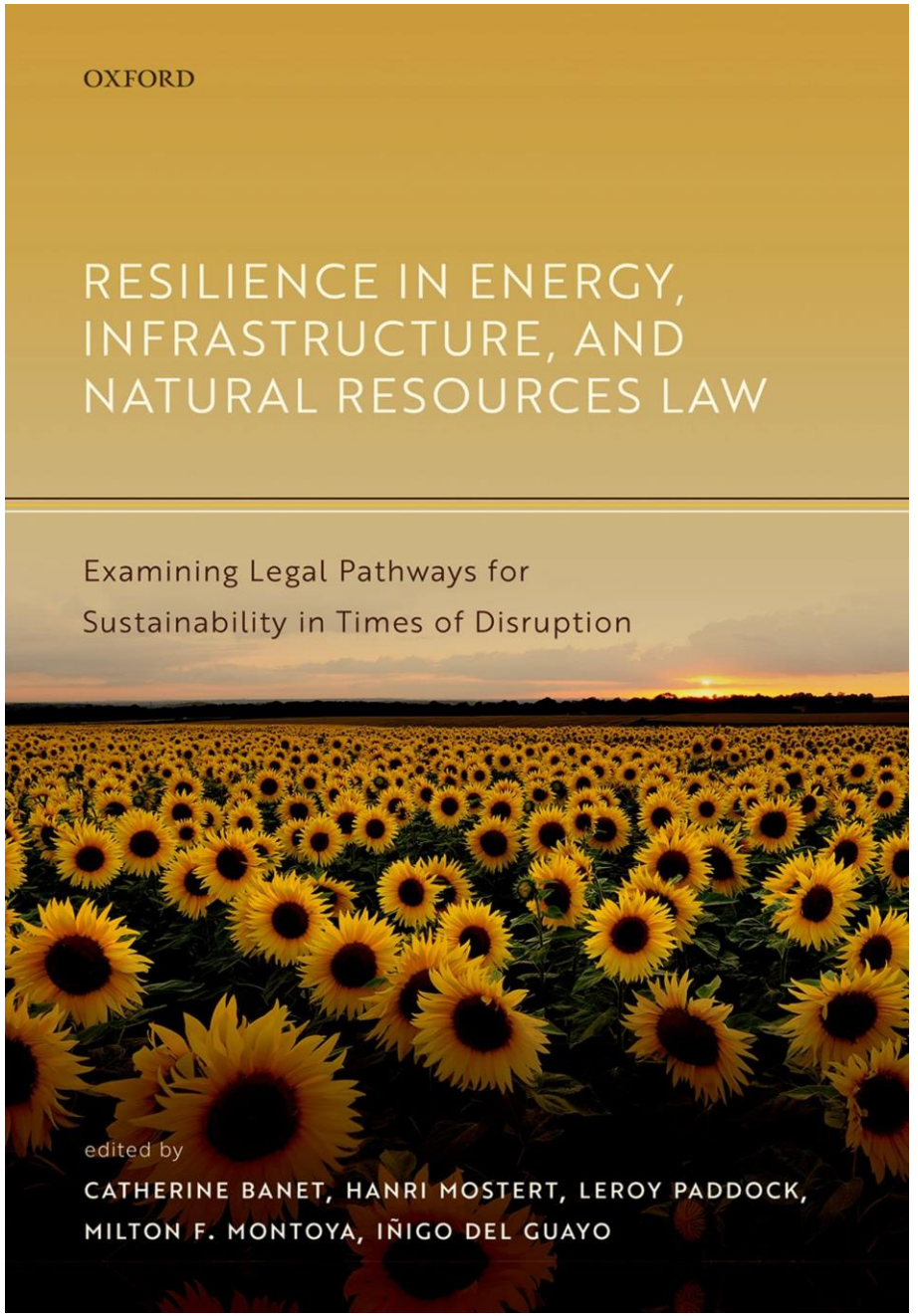
16 May 2022, 14:30–16:00

The latest book of the AAG

C. Banet, H. Mostert, L. Paddock, M. Montoya and I. del Guayo (eds.), *Resilience in Energy, Infrastructure, and Natural Resources Law: Examining Legal Pathways for Sustainability in Times of Disruption* (Oxford University Press, 2022)

Advisory Academic Group (AAG), International Bar Association, Section on Energy, Environment, Natural Resources and Infrastructure Law (SEERIL)

Included in your conference package.



Structure of the session

1. The AAG book project within the context of the SEERIL Biennial (Íñigo del Guayo)
2. Introduction to the book topic and main conclusions (Catherine Banet)
   - Track 1 - Defining resilience in energy, infrastructure and natural resources law (Lee Paddock)
   - Track 2 - State legal response to disruption (Damilola Olawuyi, José Juan González Márquez, Don C. Smith)
   - Track 3 - Managing disruption at consumption level (Louis de Fontenelle)
   - Track 4 - Strategic financing and economic responses to disruption (Hanri Mostert)
3. External comments from Bocconi University, host (Miriam Allena)
4. Q&A with the audience

Moderators:
Catherine Banet, Prof., University of Oslo, AAG member
Matthias Lang, Bird & Bird, Düsseldorf; Secretary-Treasurer, IBA - SEERIL

1. The AAG book project within the context of the 2022 SEERIL Biennial

Prof. Íñigo del Guayo, University of Almeria, Spain

Chair of the Academic Advisory Group, SEERIL/IBA

2022 SEERIL BIENNIAL

- Global energy transition
- Keeping the lights (oil and gas development in a low-carbon world)
- The future of the electric system
- Mining and sustainability
- Conservation parks and economic recovery
- Water development
- Renewable fuels
- Infrastructure delivery

2022 AAG BOOK PROJECT

Resilience as a transversal concept within the areas of SEERIL: Energy, Mining, Water, Ecosystems and Infrastructure

The concept of disruption and responses (legal, financing and economic)

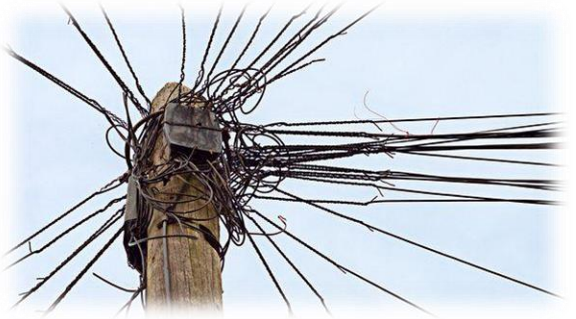
Disruption and consumers/users

2. Introduction to the book topic and main conclusions: legal pathways for sustainability based on the concept of resilience

Prof. Catherine Banet, University of Oslo,
Scandinavian Institute of Maritime Law, Head of the Department for Energy and Resources Law, Norway

Member of the Academic Advisory Group

Context



- Law and policy responses to **disruptions** to energy systems, infrastructures and natural resources.

- Cumulation of sources of disruptions. In the book, focus on **nature-based** disruptions.

- End of **growth** or new **development** model?

- Central question: how law and regulation can be reformed to make energy and natural resources systems more **resilient** to disruptive natural crises and disasters?

How law can promote resilience?

Defining “resilience”

- From latin verb *resilire*
- Over time: transition from engineering-based concepts of resilience to the wider use of the term as a characteristic of social-ecological systems
- Social science: “a system’s capacity to absorb disturbance and still remain within the same state or domain”.
- C.S. Hollings, ecological sciences: the ability of a natural system to resist and undergo changes without losing its core structure and function.
- Ability to deal with change and continue to develop.
- The process of resilience building.

#BuildBackBetter

The legal translation of resilience

- The ‘legal translation of resilience’ raises a series of challenges.
- Resilience is progressively appearing as **a new paradigm**, entering law and policy frameworks.
- However, it has being introduced into law and policy in a haphazard, inconsistent and reactive manner. Mostly as an “objective”.
- A clear need for a better and consistent recognition of the concept in legislation.
- Proposal for a working definition of resilience in legal context: “***the ability of our social-ecological ecosystems to resist and adapt to disruptions, and to pursue sustainable development and equity in an inclusive and nature-based manner***.”

Our approach

- Resilience as **a common framework**:
    - Identify and analyse the **legal responses** developed
    - Advance recommendations for building a **legal framework to foster resilience**.
- 22 chapters structured in 5 parts:
    1. Defining resilience in energy, infrastructure, and natural resources law
    2. State legal response to disruption
    3. Project developers' legal response to disruption
    4. Strategic financing and economic responses to disruptions
    5. Managing disruption and resilience at consumption level: access to energy, demand response, equity

Main conclusions

- Conceptualizing resilience in law:
  - The definition issue
  - The important of the legal, regulatory and governance systems
  - Regulatory ecosystem approach and interlinkages
  - New regulatory models
  - The demands of urgency

- Lessons learned:
  - Responsibility allocation in resilience building
  - Just resilience
  - Systems flips and new regulatory stability

- Structuring principles of energy, infrastructures and natural resources law in the forthcoming new era.

TRACK 1 - Defining resilience in energy, infrastructure and natural resources law

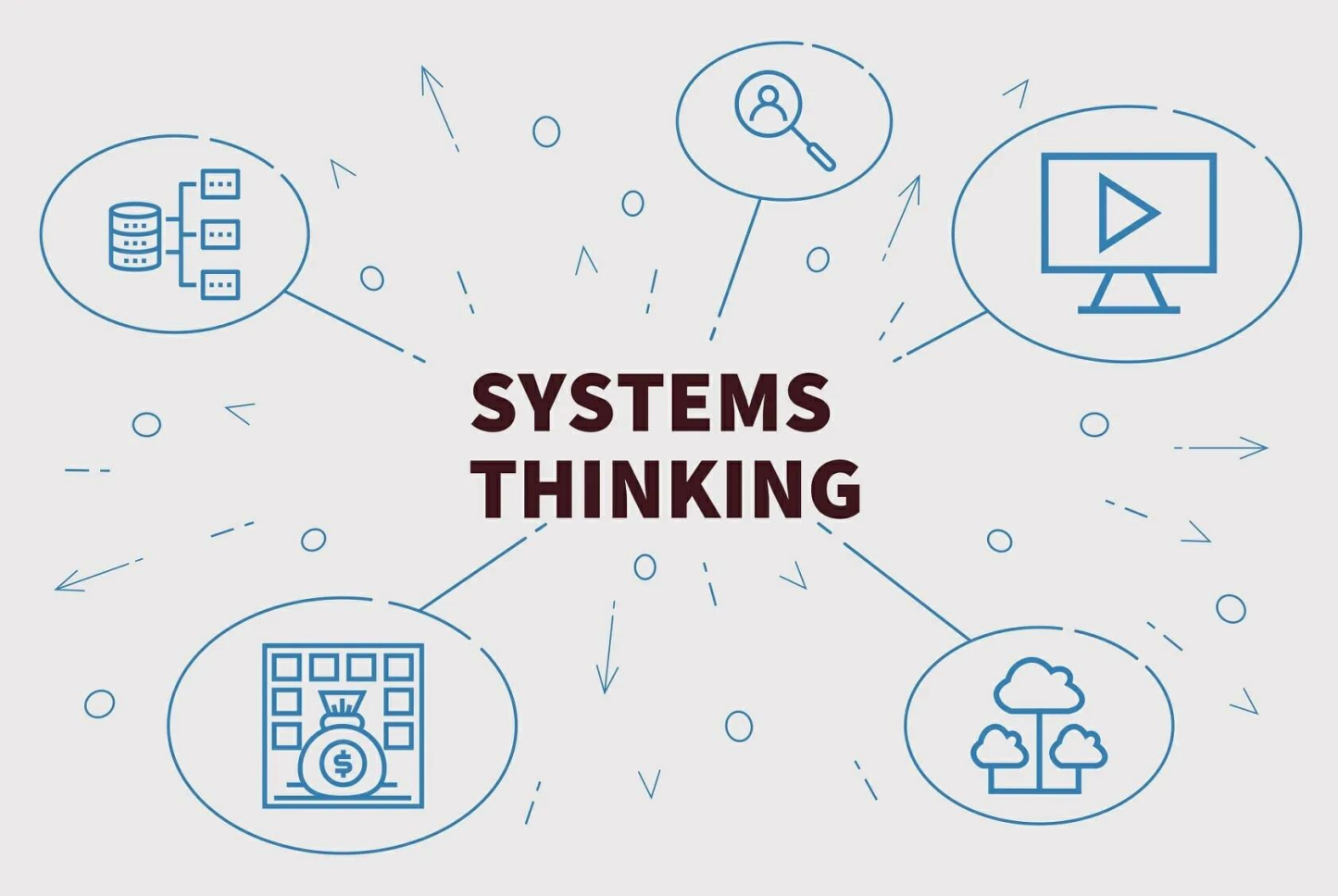
The role of law in fostering or inhibiting resilient energy systems

Leroy Paddock, Associate Dean of the Environmental Law Studies, George Washington University Law School, Washington DC, United States

Member of the Academic Advisory Group

Importance of systems thinking

- Ecological systems
- Sociological systems including legal systems



Resilience

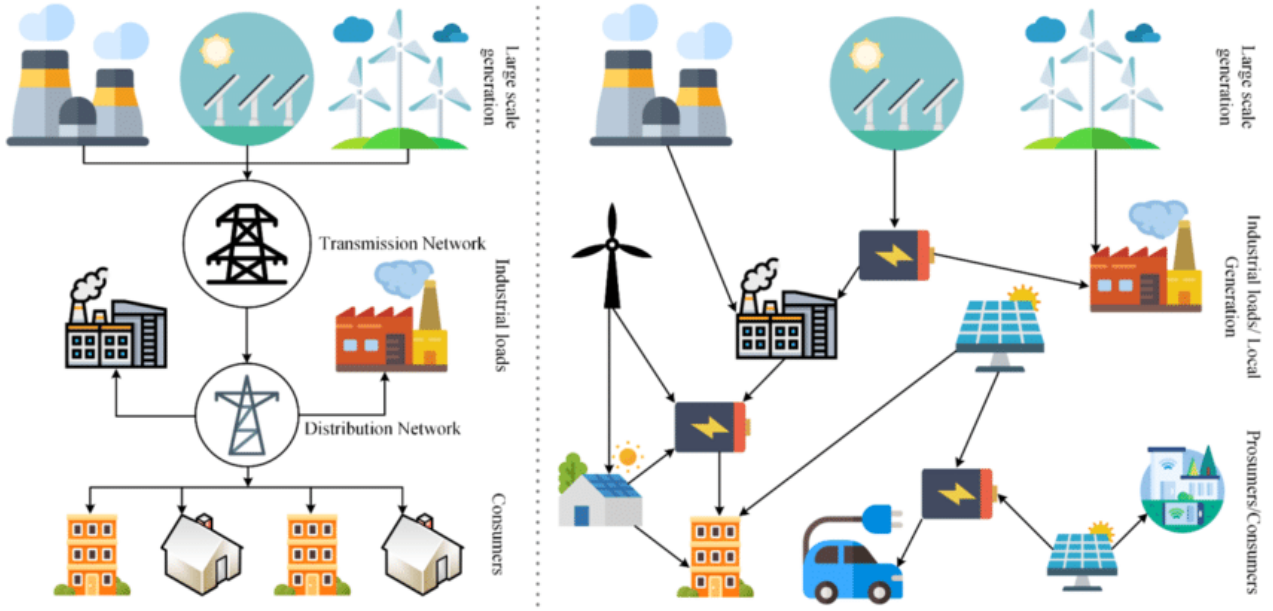
- Return to status quo facilitated by legal systems
- Transitioning to new stability regimes facilitated by legal systems (Puerto Rico post hurricane)

Resilience in energy law

- Ecological disruptions
  - Climate change
  - Air quality including conventional and hazardous
  - Water availability and quality
  - Habitat (birds, bats, whales)

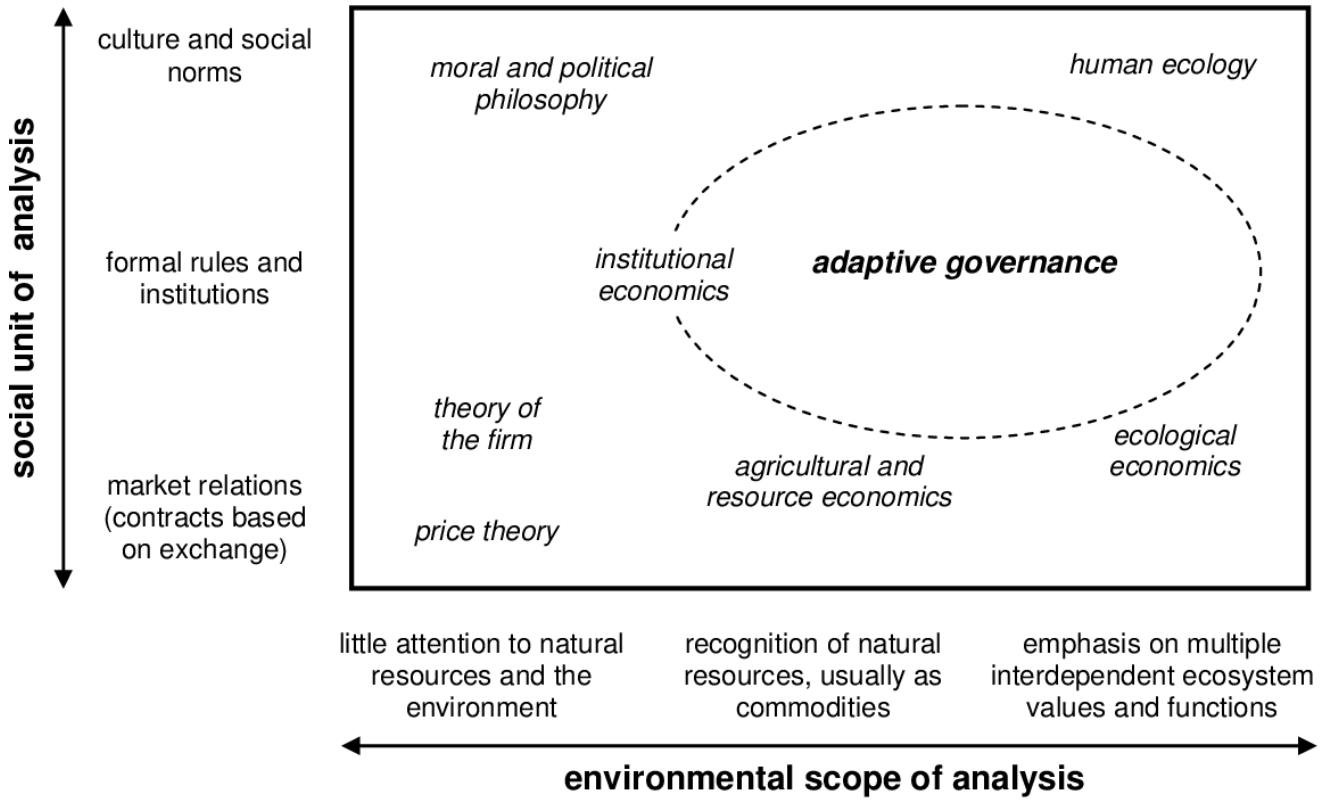
Resilience in energy law

- Electricity systems disruptions
  - Unbundling
  - Wind and solar
  - Distributed energy resources
  - Demand response
  - Smart grid
  - Battery storage
  - EVs
  - Electrification of building systems
  - ***THE PACE OF CHANGE***



Legal responses

- Better systems understanding
- More diverse considerations in legal system design (broader ecological system impacts, consumer considerations, justice concerns)
- Greater use of adaptive governance approaches



Source: Adapted from Hatfield-Dodds 1998

TRACK 2 - State legal response to disruption

Advancing Resilience to Price Volatility in Oil and Gas Markets: Current Challenges and Ways Forward in the MENA region

- Damilola Olawuyi

The new nationalism of the Mexican Energy policy in a turbulent international context

- José Juan González Márquez

Energy Resilience in the United States: Impact of the 2020 Presidential and Congressional Elections

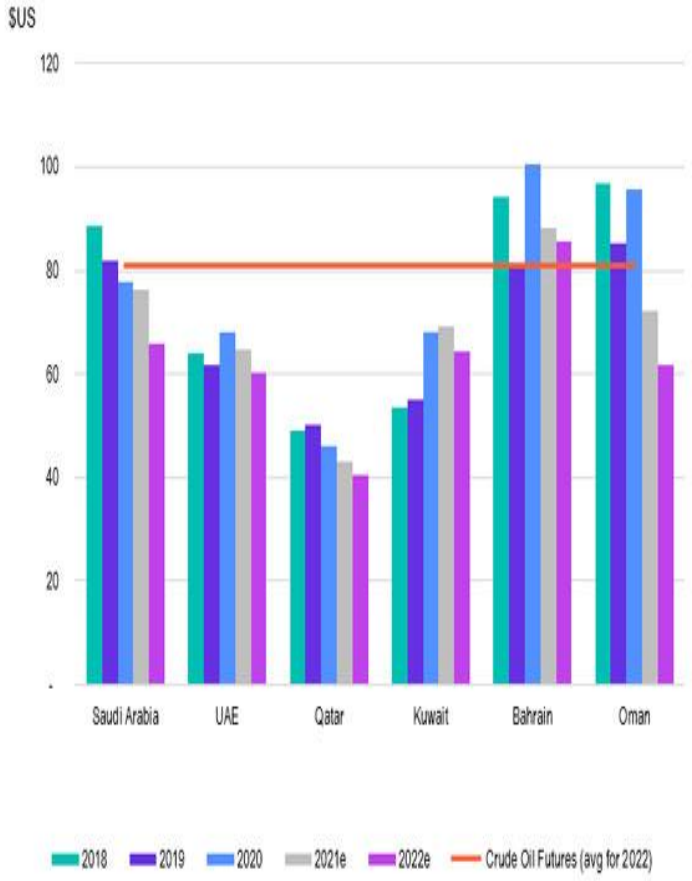
- Don C. Smith

Advancing Resilience to Price Volatility in Oil and Gas Markets: Current Challenges and Ways Forward in the MENA region

Prof. Damilola S. Olawuyi, SAN, Hamad Bin Khalifa University Law School, Doha, Qatar

Member of the Academic Advisory Group

Breakeven Oil Price for GCC Countries



Source: International Monetary Fund Regional Economic Outlook, October 2021. There is no assurance that any estimate, projection or forecast will be realized.

Drivers and dimensions of oil price volatility in the MENA region

- Nature of the oil and gas commodity itself (demand and supply fluctuations)
- Slow pace of economic diversification across the region
- Slow pace of energy diversification and green economy transition in MENA countries
- prevalence of fiscal incentives such as subsidies and zero taxation which generally reduce the revenue base for governments
- Regulatory complexities and administrative barriers to entrepreneurship
- Gaps in contractual risk management (risk mitigation techniques and hedging clauses)

Advancing disaster risk and resilience planning in MENA oil and gas industries

Improving resilience to oil price volatility risks requires a legal, fiscal and institutional reform agenda aimed at mainstreaming disaster risk reduction and resilience (DRRR) measures into energy law and policy across the region.

- **Pre-hazard measures** in this context will include:
  - clear and supportive legal frameworks on entrepreneurship and economic diversification
  - robust legal and institutional frameworks on taxation, decarbonisation, and renewable energy development
  - Local content laws to increase domestic capacity for risk assessment, contract negotiation and fiscal coordination across the entire value chain of the energy industry.
- **Post-hazard measures**:
  - adopt a wide portfolio of wealth management systems (such as sovereign wealth funds and budget stabilisation funds) to minimise impacts of future bust cycles and promote a speedy recovery
  - integrate decarbonization into investment consideration and planning

The new nationalism of the Mexican Energy policy in a turbulent international context

Prof. José Juan González Márquez , Metropolitan Autonomous University, Azcapotzalco, Mexico

Member of the Academic Advisory Group

- In recent years, the Mexican Energy Sector has been under so much stress and will continue under it.
- In 2013 Federal Congress passed a constitutional reform to:
  - Open the energy sector to private investment
  - Promote more significant participation of clean energies in the energy matrix
- In 2018 a new government took the chair and started re-nationalisation of the energy sector. This process includes:
  - The re-establishment and strengthening of the state monopolies over hydrocarbons and electricity industries
  - The return to a carbon-based economy
- Neither the international oil prices crisis nor the COVID-19 Pandemic stopped the nationalist plans of the new government.
- The new president attempted to modify the constitutional rules through administrative regulations. The changes included: modifying the rules for awarding Clean Energy Certificates, Suspending permits for new wind and photovoltaic power plants, Eliminating competition conditions in the energy sector, and disfavouring wind and solar power plants and favours conventional power.
- However, the Judiciary declare such regulations unconstitutional.

- In 2021 the Federal Congress passed a reform to the Law of Electricity Industry. It introduced the following changes: modification of the rules for granting clean energy certificates; preference for the dispatch of fossil fuels; Eliminating auctions of electricity; revoking permits for self-supply of electricity
- An action of unconstitutionality was filed against these reforms, but the Supreme Court of Justice rejected this action.
- However, civil society groups and institutions have filed several Amparo actions. It is expected that most of them will succeed, and as a result, the reform will be declared unconstitutional.
- In 2022 the Executive sent a constitutional reform to Congress. It pretended to introduce the following changes: Restoration of the state monopoly over all stages of the electricity industry, remove autonomy from public companies in the energy sector, elimination of clean energy certificates, elimination of autonomous regulatory bodies, modify the rules for electricity dispatch, and cancel permits granted to private companies; private sector will only be able to produce 46% of the electricity.
- The constitutional reform was not approved.
- In addition, all the changes introduced by the new government contradict the commitments assumed in the Free Trade agreements signed by Mexico.
- The question here is how much the energy sector can resist? How resilient is it?

Energy Resilience in the United States:
Impact of the 2020 Presidential and Congressional Elections

Prof. Don C. Smith, Sturm College of Law,
University of Denver, Colorado, United States

Member of the Academic Advisory Group

- During Trump presidency, resilience not discussed
    - Emphasis on propping up coal–fired and nuclear power stations
    - And yet during the Trump years, huge climate change-related storms in the US caused billions in losses as well as significant loss of life
- 2020 election results: Biden wins presidency and Democrats take control of both US Senate and House
    - Biden, while not embracing resilience by itself, has woven it into early pronouncements/legislation on environmental protection, energy justice, and addressing climate change
    - However, Biden has struggled to implement his agenda because of fractious status of Democrats in the Senate

- Looking ahead, Biden faces major legislative challenges

- Moreover, Biden's efforts to re-align US energy policy through regulation (embracing resilience and lower carbon emissions) may be prevented by an "activist" US Supreme Court
  - What the "leaked" opinion in the abortion case may signal
  - Will the Supreme Court reverse or narrow its 15-year-old decision in Massachusetts v EPA

- Mid-term elections: If the Republican Party wins control of US House or Senate, then what next?
  - US leadership on climate change issues will be tenuous, at best

TRACK 3 - Managing disruption at consumption level

Increasing the Resilience of the Energy System Through Consumers: Towards Decentralized, Interconnected, and Supportive Ecosystems

Ass. Prof. Louis de Fontenelle, University of Pau,

Chair E2S, TREE (CNRS UPPA), France

Increasing crises and resilience of energy systems

- **Context**
  - The problematic recomposition of our environment : the convergence of problems at a time of combined economic, environmental, health and climate crises.
  - Resilience as a legal concept.
- **Questionings**
  - What role can final consumers play individually or collectively in achieving this resilience in a moment of crisis conjunction?
  - How are citizen identities forged, which are essential for the development of individual or collective actions?
  - What impacts do these citizen actions have on the global energy system?

The role and the contribution of final consumers in the resilience of energy systems

I – Actions

The functional role: Consumers can provide various flexibility services to the networks to promote a balanced and efficient supply

The structural role: The potential of energy communities in the energy system.

II – Identities

A legal and social reality of energetic citizenship

The challenge of citizen appropriation of the energy transition

III - Recomposition

What are the implications of the decentralization of energy systems?

Advantages and disadvantages

Thinking about complexity

- The current challenge is to ensure the energy system's resilience in a period of problematic recomposition of our environment
- The complexity of the energy transition requires moving from one model to another while ensuring the system's efficiency
- Citizenship cannot be decreed, and one of the fundamental challenges is encouraging citizens to take ownership of the challenges of the energy transition

TRACK 4 - Strategic financing and economic responses to disruption

How strong can you stand if you're on your knees? Financing Crises in Africa: Implications for the Natural Resource and Energy Sectors

Prof. Hanri Mostert, University of Cape Town, South Africa,
SARChI Research Chair for Mineral Law in Africa

Member of the Academic Advisory Group

COUNTRY SURVEYS: INSIGHTS FROM COVID19 CRISIS RESPONSES

repurpose resource revenue; loans

Chris Adomako-Kwakye

re-budget and new loans

Hanri Mostert

Investor friendly policy revisions; resource nationalism; R4I contracts

Kangwa-Musole Chisanga

IMF disbursement and internal mitigations

Meyer van den Berg

(1) CUMULATIVE EFFECT OF DISASTERS

(2) DEVASTATING EFFECTS OF SHUTTING DOWN RESOURCE EXTRACTION

(3) AFRICAN SOVEREIGN DEBT & TOXIC LOANS

FINANCING CRISIS MANAGEMENT AND RESILIENCE: POLICY AND CONTRACTUAL OPTIONS

External book commentary & perspectives on blockchain and resilience

Prof. Miriam Allena, Bocconi University, Milan, Italy

Resilience in Energy, Infrastructures and Natural Resources law: The Need for a “Choral Approach”

- The disruptive impact of new technologies
- Blockchain technology: a new role of the State and public authorities
- Towards a more direct engagement of both regulated entities and the general public in the performance of public functions
- Resilience and Natural Resources Law: the need for a ‘choral’ approach

Questions & Answers with the Audience