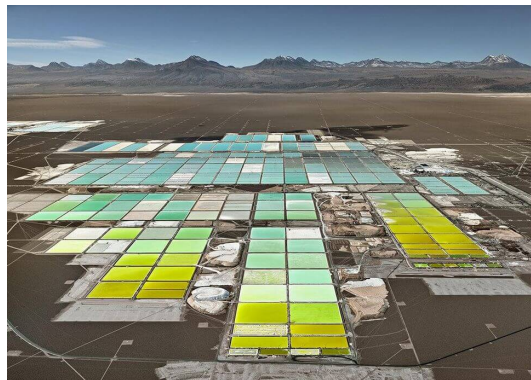


Electric Vehicle Battery Supply Chains: Ensuring Sustainability



Ethan N. Elkind

Director of the Climate Program

Center for Law, Energy & the Environment (CLEE)

UC Berkeley School of Law

BerkeleyLaw

UNIVERSITY OF CALIFORNIA

Center for Law, Energy &
the Environment

*Channeling the knowledge
and creativity of the Berkeley
Law community into
pragmatic policy solutions to
pressing environmental and
energy law issues*

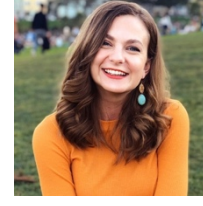


**Climate
& Energy**

Water

Oceans

Land Use





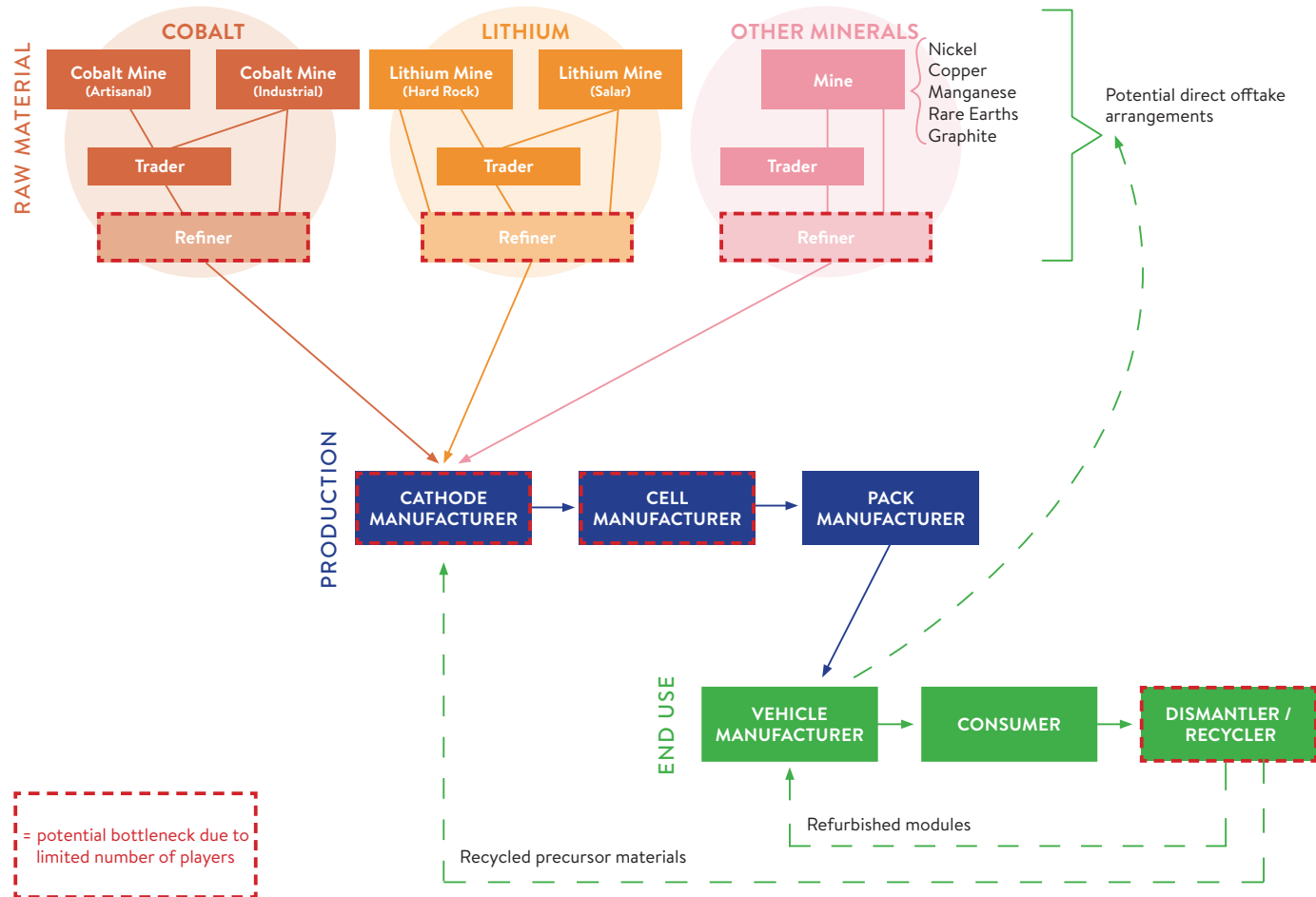
SUSTAINABLE DRIVE SUSTAINABLE SUPPLY

Priorities to Improve the Electric Vehicle Battery Supply Chain

JULY 2020



FIGURE 1: VISUALIZING THE EV BATTERY SUPPLY CHAIN



Key Challenges to Sustainability



- **Lack of coordinated action, accountability, and access to information across the supply chain**
- **Inadequate coordination and data sharing across multiple supply chain standards limit adherence**
- **Regulatory and logistical barriers inhibit battery life extension, reuse, and recycling**

Priority Responses



- **Improve data transparency** and promote neutral/reliable info-sharing
- **Map existing standards through a taxonomy** of criteria, overlap, etc.
- **Create new incentives** to adhere to existing standards and initiatives, including labeling & certification
- **Design batteries** for recycling and reuse & collaborate on regional recycling infrastructure

FIGURE 2: EV BATTERY SUPPLY CHAIN STANDARDS TAXONOMY MATRIX

Company A Sustainability Standard Adherence Matrix

STANDARD X	Content				Participants					Implementation									Application				Scope	Enforcement				Sponsor			Links	
					GOV-ERN-MENT	INDUSTRY		CIVIL SOCIETY	INVES-TORS	GOVERNMENT			INDUSTRY / INVESTORS & FINANCE			CIVIL SOCIETY																
	Human Rights	Violent Conflict	Labor Rights		Federal / National	Mining	Mid-Stream	National	Equity	Dilig. Policy.	Corp. Mgmt.	Train/ P'ship.	Dilig. Policy.	Corp. Mgmt.	Train/ P'ship.	Dilig. Policy.	Corp. Mgmt.	Train/ P'ship.	Mining	Trad-ing	Refin-ing	Cath. Mfr.	Universal	Leg. Sanc.	De-Cert.	Down-grade		State Gov.	Intl. Org.	Trade Assn.		
	Local Economy	Local	Climate Change	Reuse & Recycling	Local / State	Refining / Process-ing	Down-Stream	International	Debt	Intl. Reptg.	3P Reptg.	Pub. Reptg.	Intl. Reptg.	3P Reptg.	Pub. Reptg.	Intl. Reptg.	3P Reptg.	Pub. Reptg.	Cell Mfr.	Batt. Asm.	Veh. Mfr.	Batt. Recy.	Limited	Cnsmr. Rep.	Invstr. Rep.	Market Rep.	Gov. Rep.	Civ. Soc.	ppp			
								Local Commu-nity		Active Diseng	Sanct-ions	Over-sight	Active Diseng	Compl/ Griev.		Active Diseng																

STANDARD X					GOV-ERN-MENT	INDUSTRY		CIVIL SOCIETY	INVES-TORS	GOVERNMENT			INDUSTRY / INVESTORS & FINANCE			CIVIL SOCIETY															
	Human Rights	Violent Conflict	Labor Rights		Federal / National	Mining	Mid-Stream	National	Equity	Dilig. Policy.	Corp. Mgmt.	Train/ P'ship.	Dilig. Policy.	Corp. Mgmt.	Train/ P'ship.	Dilig. Policy.	Corp. Mgmt.	Train/ P'ship.	Mining	Trad-ing	Refin-ing	Cath. Mfr.	Universal	Leg. Sanc.	De-Cert.	Down-grade		State Gov.	Intl. Org.	Trade Assn.	
	Local Economy	Local	Climate Change	Reuse & Recycling	Local / State	Refining / Process-ing	Down-Stream	International	Debt	Intl. Reptg.	3P Reptg.	Pub. Reptg.	Intl. Reptg.	3P Reptg.	Pub. Reptg.	Intl. Reptg.	3P Reptg.	Pub. Reptg.	Cell Mfr.	Batt. Asm.	Veh. Mfr.	Batt. Recy.	Limited	Cnsmr. Rep.	Invstr. Rep.	Market Rep.	Gov. Rep.	Civ. Soc.	ppp		
								Local Commu-nity		Active Diseng	Sanct-ions	Over-sight	Active Diseng	Compl/ Griev.		Active Diseng															

Ethan Elkind

eelkind@law.berkeley.edu

@BerkeleyLawCLEE

@ethanelkind

clee.berkeley.edu

legal-planet.org

ethanelkind.com

BerkeleyLaw

UNIVERSITY OF CALIFORNIA

Center for Law, Energy &
the Environment