DOCKETED	
Docket Number:	20-LITHIUM-01
Project Title:	Lithium Valley Commission
TN #:	237359
Document Title:	Presentation Lithium Valley Commission 3-25-21 Updated
Description:	Presentation slideshow for March 25, 2021 Lithium Valley Commission meeting.
Filer:	Elisabeth de Jong
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	4/1/2021 10:20:04 AM
Docketed Date:	4/1/2021

Lithium Valley Commission Meeting

March 25, 2021

Housekeeping

- Meeting conducted remotely via Zoom
  - Recorded and transcribed by court reporter
- To participate in public comment:
  - By computer: use the “raise hand” feature in Zoom
  - Over the telephone: dial *9 to “raise hand” and *6 to mute/unmute your phone line
- Written comments:
  - Submit through the e-commenting system at:
  - https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=20-LITHIUM-01

Welcome and Roll Call

Agenda

- Welcome and Roll Call
- Administrative Items
  - Approval of Past Meeting Action Minutes
  - Consideration of Rules of Order
  - Possible election of Vice Chair
- Goal Setting Discussion
- Lithium Valley Commission Report
  - General Report Structure
  - Establish Commissioner Workgroups
- Guest Presentation on the Global Lithium Market
- Panel Discussion by Industry and Academia on Active Lithium Recovery Facilities
- Media and Legislation Updates
- Determination of Agenda Topics, Speakers, and Presentations for Future Meetings
- Public Comment
- Adjourn

Administrative Items

- Approval of Past Meeting Action Items

Public Comment

Comment Instructions:

Limited to 3 minutes per comment

By computer: use the “raise hand” feature in Zoom

By telephone: dial *9 to “raise hand” and *6 to mute/unmute your phone line

Administrative Items

- Consideration of Rules of Order

Public Comment

Comment Instructions:

Limited to 3 minutes per comment

By computer: use the “raise hand” feature in Zoom

By telephone: dial *9 to “raise hand” and *6 to mute/unmute your phone line

Administrative Items

- Possible election of Vice Chair

Public Comment

Comment Instructions:

Limited to 3 minutes per comment

By computer: use the “raise hand” feature in Zoom

By telephone: dial *9 to “raise hand” and *6 to mute/unmute your phone line

Goal Setting Discussion

Public Comment

Comment Instructions:

Limited to 3 minutes per comment

By computer: use the “raise hand” feature in Zoom

By telephone: dial *9 to “raise hand” and *6 to mute/unmute your phone line

Lithium Valley Commission Report

- General Report Structure
- Establish Commissioner Workgroups

Bagley-Keene Open Meeting Act and Sub-Bodies

Lithium Valley Commission

March 25, 2021
California Energy Commission
Chief Counsel's Office

Bagley-Keene Application to LVC:

Applies to any Lithium Valley Commission (LVC) meeting where “a majority of the members congregate to hear, discuss, or deliberate” upon matters within LVC’s jurisdiction

This Includes:

"An advisory board, advisory commission, advisory committee, advisory subcommittee, or similar multimember advisory body of a state body, **if created by formal action** of the state body or of any member of the state body, and if the advisory body so created **consists of three or more persons**."

Gov. Code § 11121(c)

What is “Formal Action?”

- When a body authorizes or directs an individual to create a new body, that new body is deemed to have been created by formal action of the body

- Motion, ordinance, resolution, designation of members, or any similar action

When does Bagley-Keene Apply to Sub-Bodies?

- If LVC formally creates the sub-body – including by motion and vote or perhaps by direction of the chair in her official capacity – **AND**

- The sub-body has three or more members

When does Bagley-Keene NOT Apply to Sub-Bodies?

- When the sub-body was not formally created by LVC, and has fewer than 7 members, **OR**

- When the sub-body has less than three members

What's in a Name?

- It doesn't matter what the sub-body is called, could be "subcommittee," "advisory committee" or "subgroup"
- If it meets the criteria, the Bagley-Keene open meeting requirements apply

Public Comment

Comment Instructions:

Limited to 3 minutes per comment

By computer: use the “raise hand” feature in Zoom

By telephone: dial *9 to “raise hand” and *6 to mute/unmute your phone line

Guest Presentation on the Global Lithium Market

- Logan Goldie-Scot, Head of Clean Power Research, BloombergNEF

Global Lithium Update

California Lithium Energy Commission

Logan Goldie-Scot

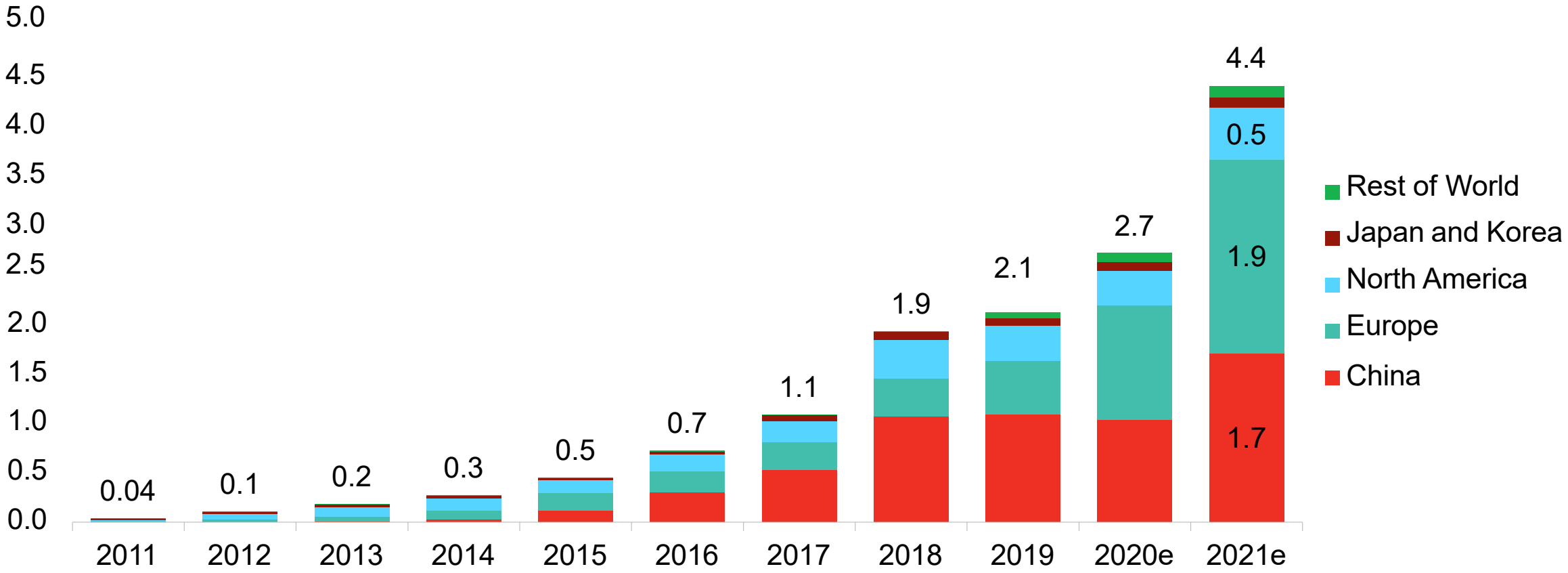
March 25, 2021

BloombergNEF

Demand

We expect 4.4 million passenger EVs to be sold globally in 2021

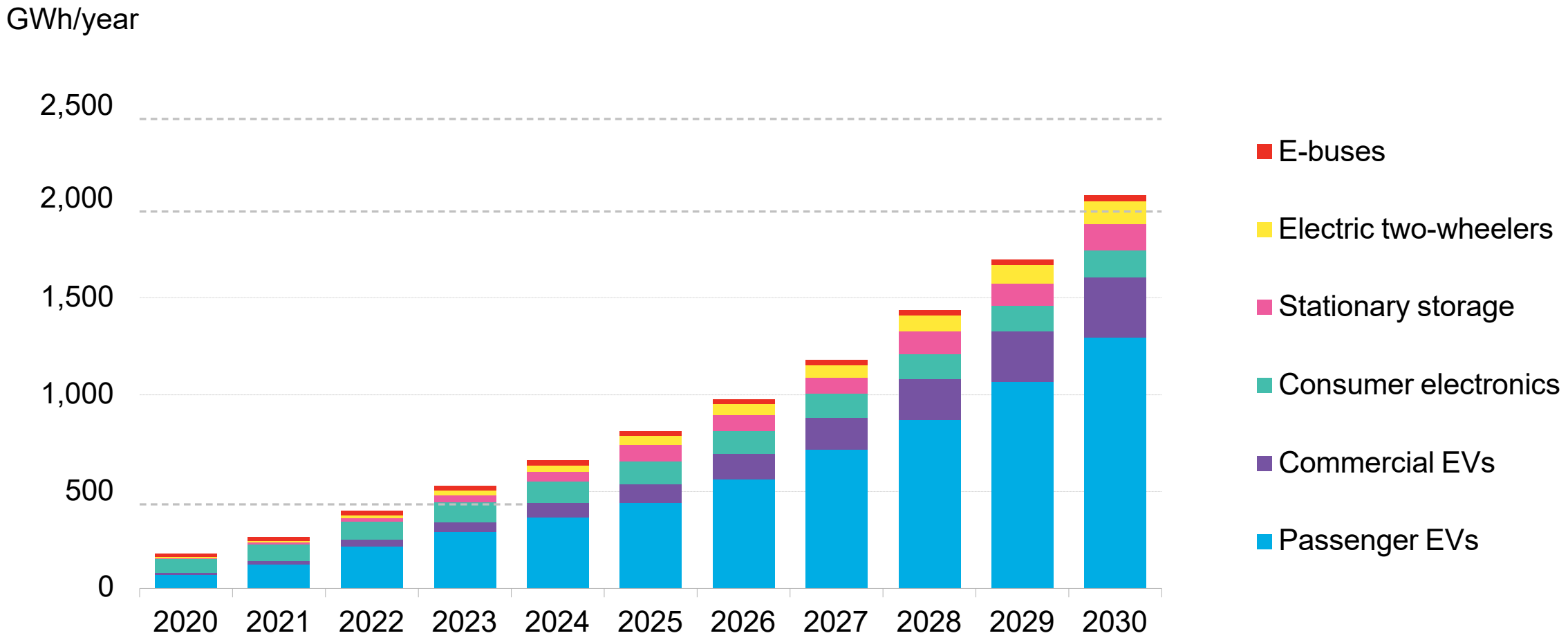
Global passenger electric vehicle sales



Source: BloombergNEF, Marklines

BloombergNEF

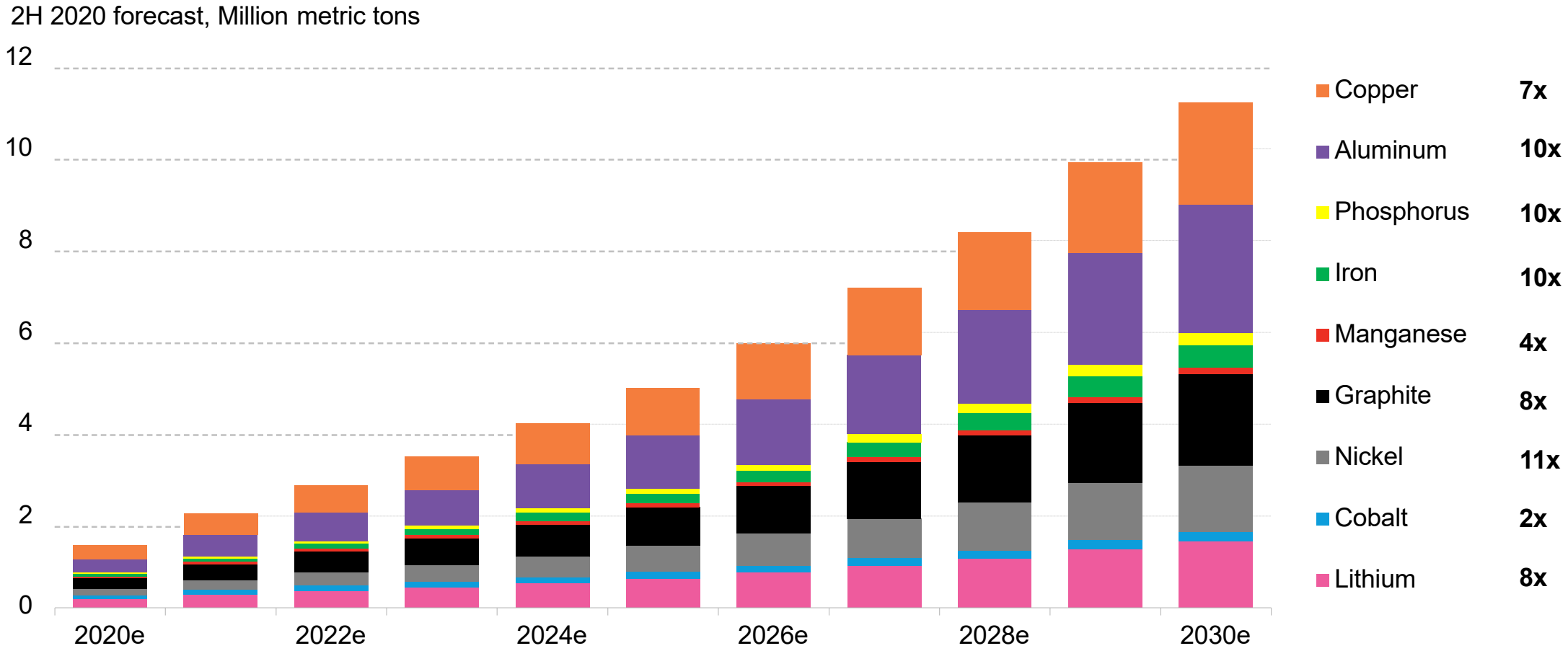
Battery demand will increase tenfold in a conservative scenario by 2030



Source: BloombergNEF, Avicenne for consumer electronics data

BloombergNEF

Leading to a surge in demand for battery metals over the decade



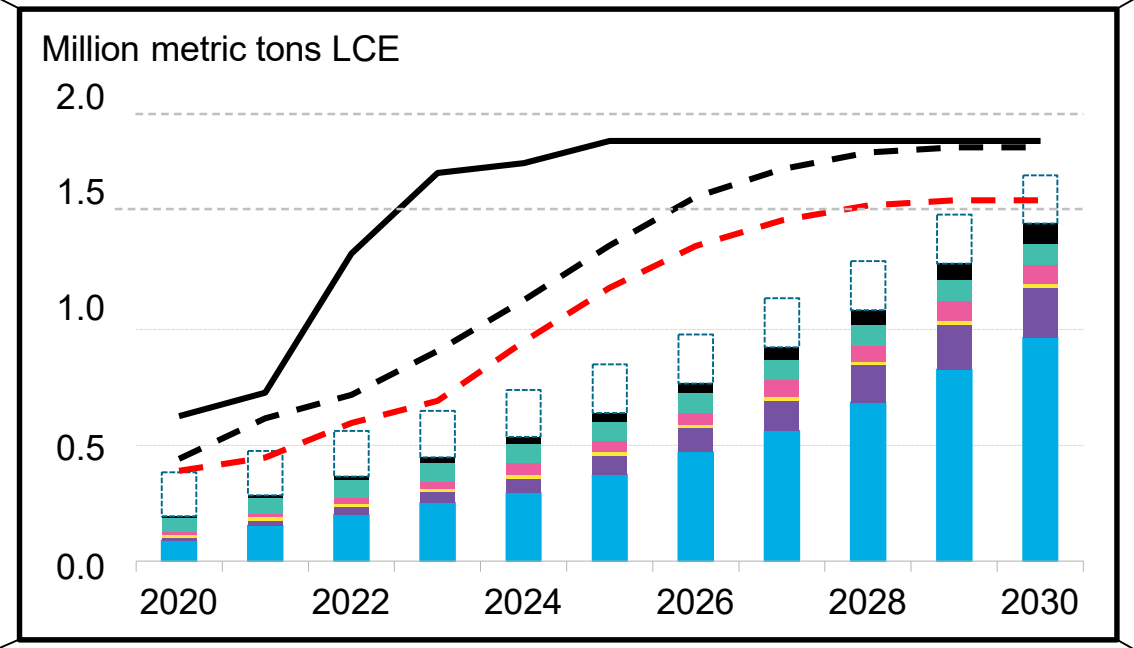
Source: BloombergNEF. Note: Metals demand occurs at mine mouth, one-year before battery demand. All metals expressed in metric tons of contained metal, except lithium is in lithium carbonate equivalent (LCE).

Lithium market dynamics

There are our risks facing the high-growth lithium market

Supply control

High costs



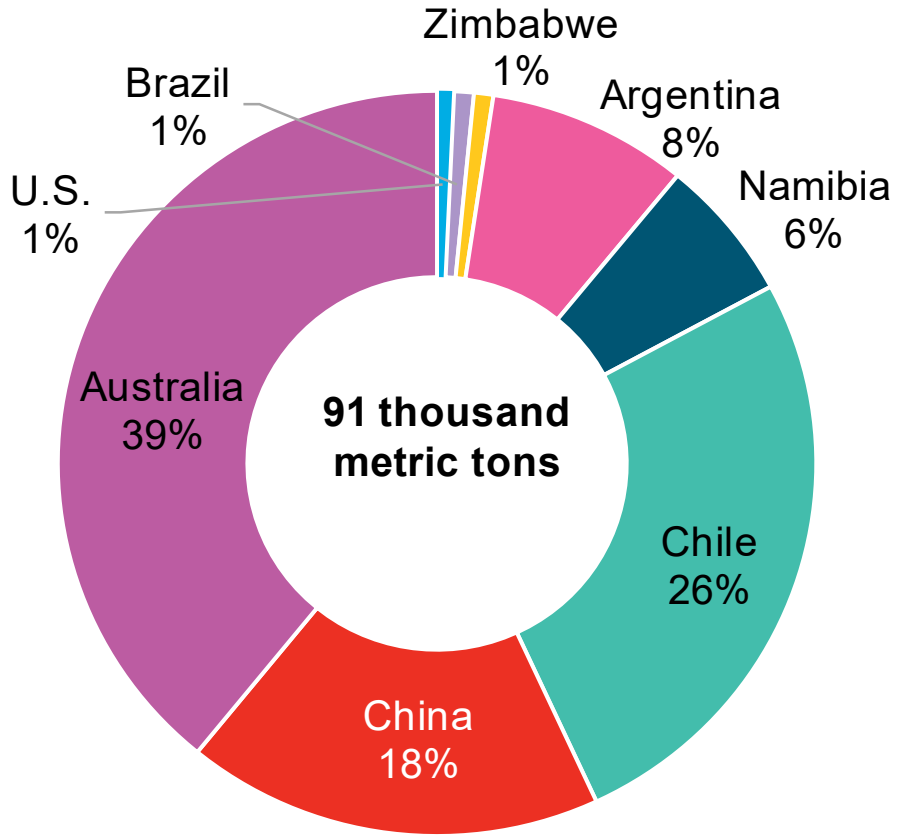
High debt

Project delays

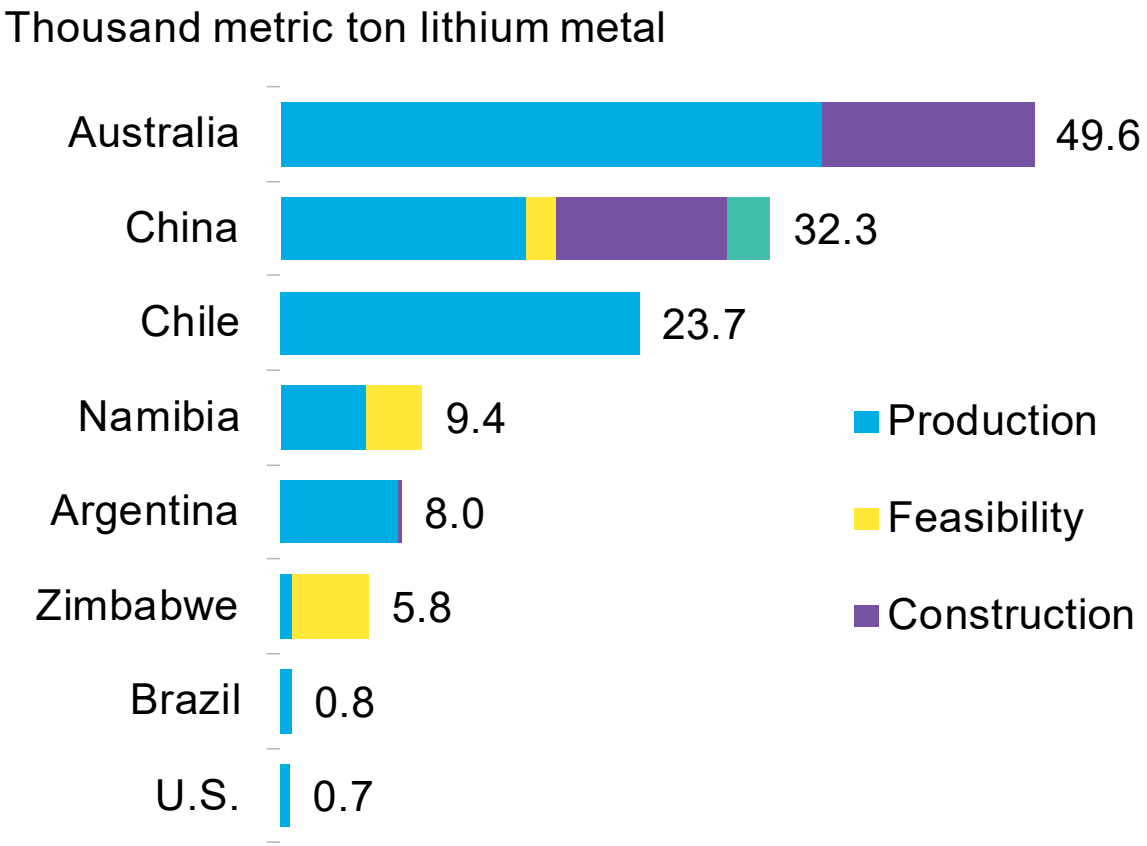
BloombergNEF

Lithium-ion mining nameplate manufacturing capacity

Supply control



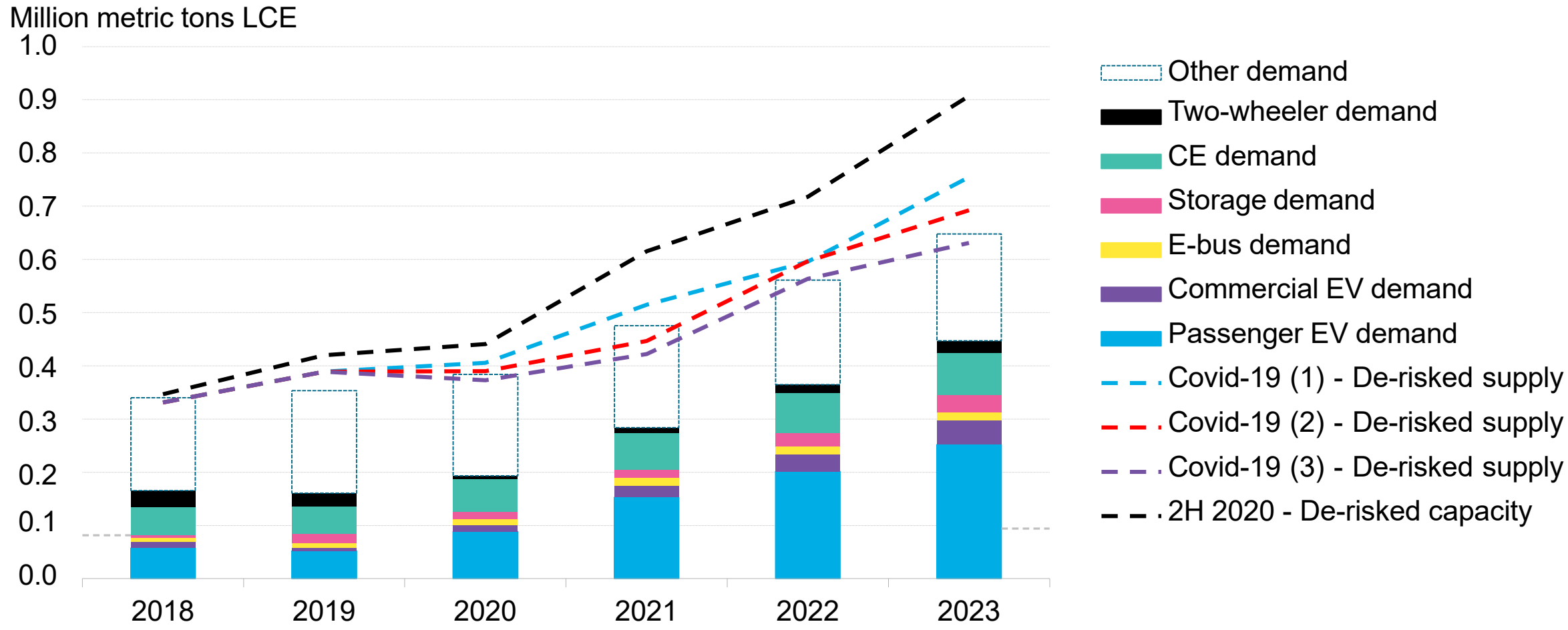
Source: BloombergNEF. Note: Figure reflect global totals as of October 20, 2020.



Source: BloombergNEF. Figures reflect global lithium mining capacity as of 3Q 2020. Note: Production is when the project is operating, feasibility is when it has published a definitive feasibility study, development follows feasibility and is when contracts are issued

Global lithium supply appears in balance in the near-term

Supply control

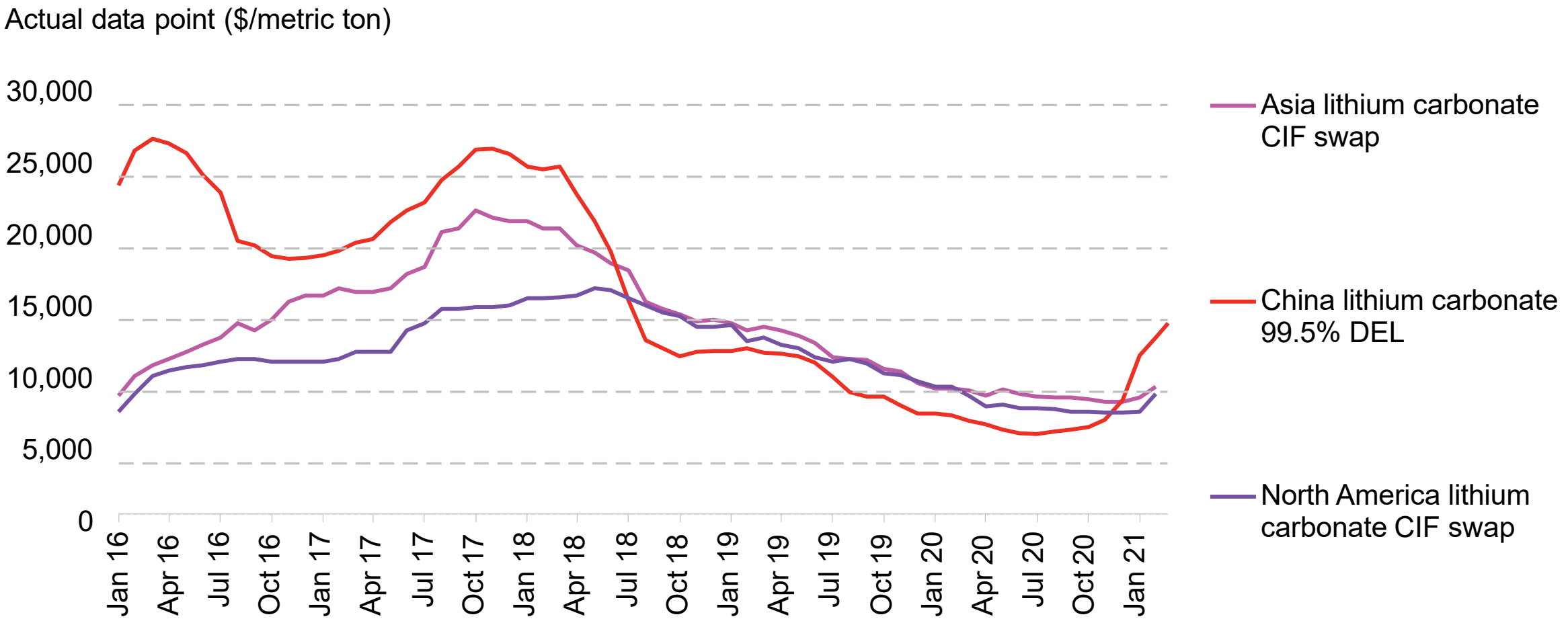


Source: BloombergNEF

BloombergNEF

Prolonged low prices give way to signs of a lithium resurgence

High costs

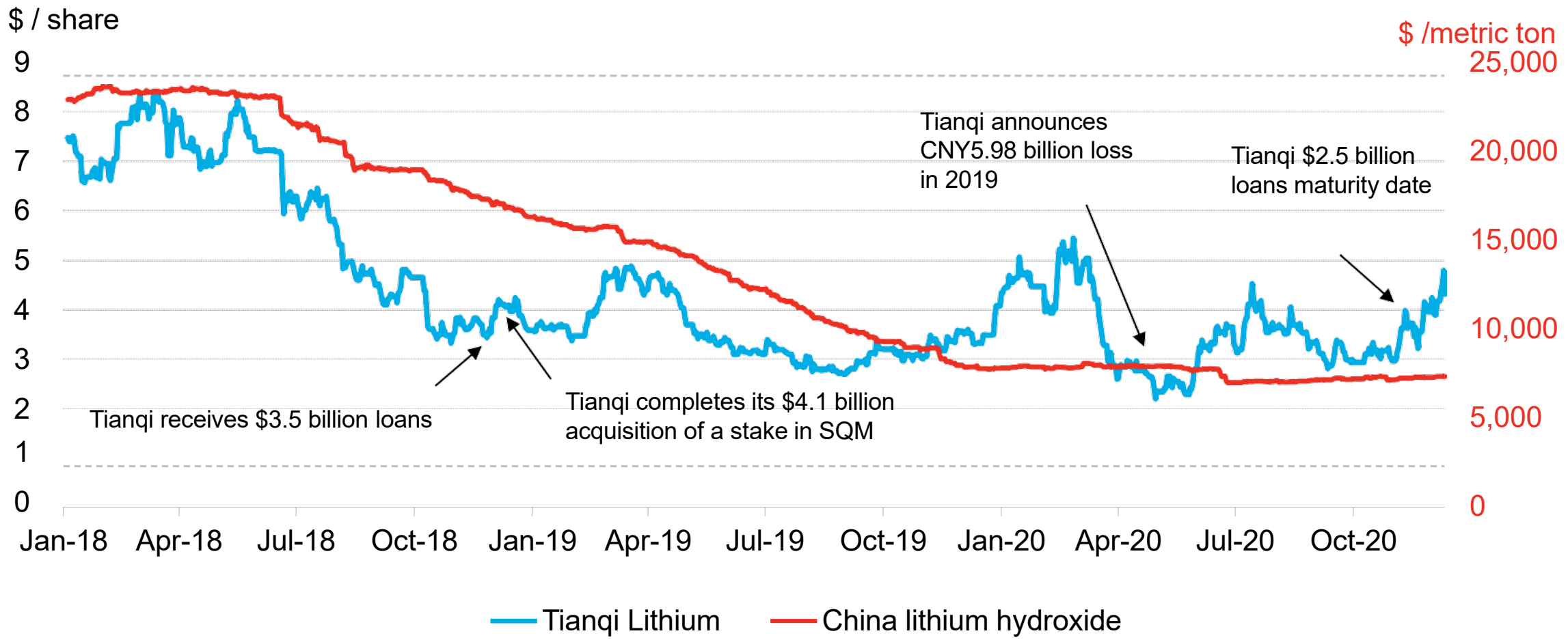


Source: Benchmark Mineral Intelligence, Asian Metal Inc, BloombergNEF

BloombergNEF

Many leading lithium producers accumulated debt, amid low prices

High debt

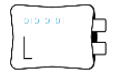


Source: BloombergNEF

BloombergNEF

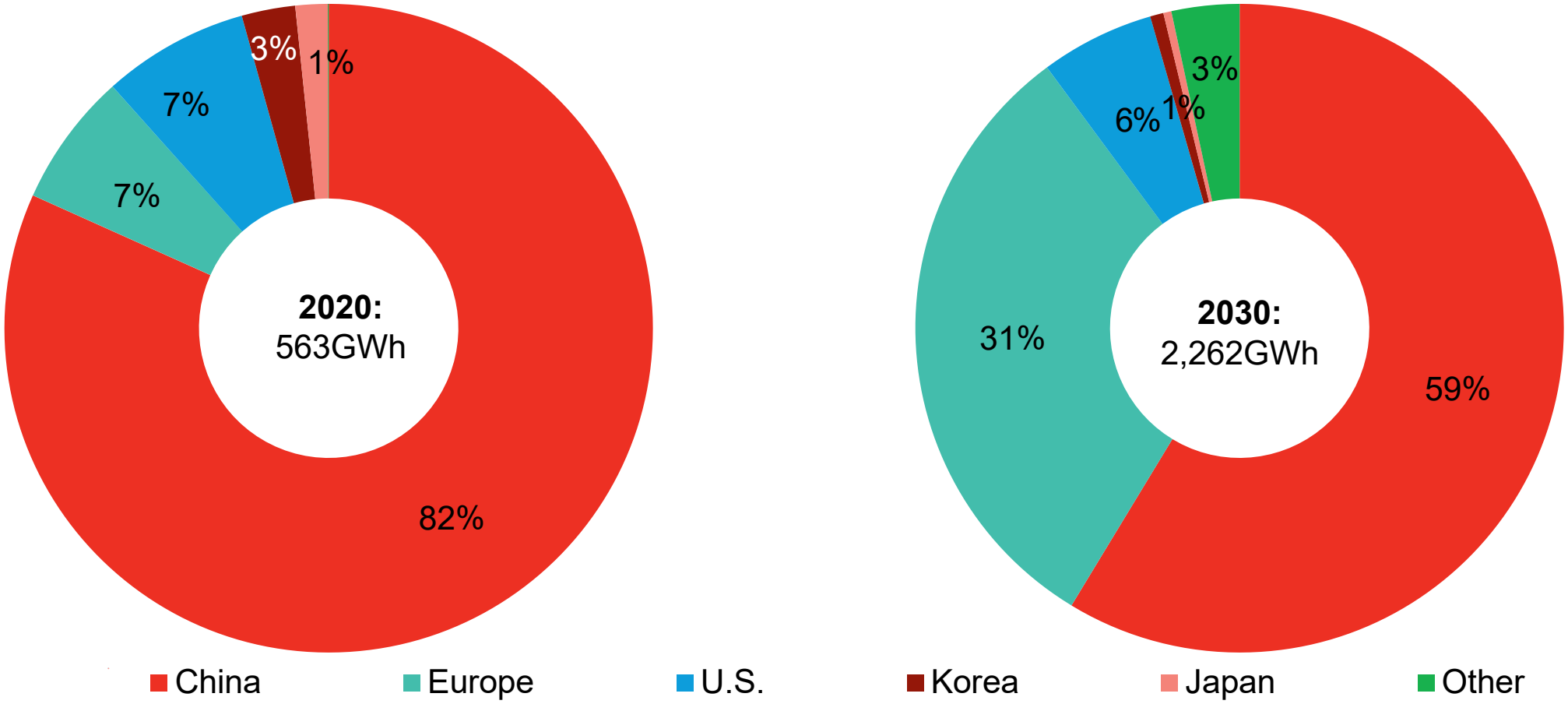
Strategic investments

The battery production value chain

Raw materials		Components					Battery		Recycling
Mining	Refining	Cathode	Anode	Separator	Electrolyte	Others	Cell	Pack	Recycling
$_{3}$Li	LiOH Li2CO3	NCM	Natural graphite	Dry-processed	Salt	Additives	 Prismatic	Module	Repurposing
$_{28}$Ni	NiSO4	NCA	Artificial graphite	Wet-processed	Solvent	Current collectors	 Pouch	Pack	Metal recovery
$_{27}$Co	CoSO4 CoO2	LFP	Si-C complex	Coated		Housing materials	 Cylindrical		
$_{25}$Mn	MnSO4	NCMA	LTO						

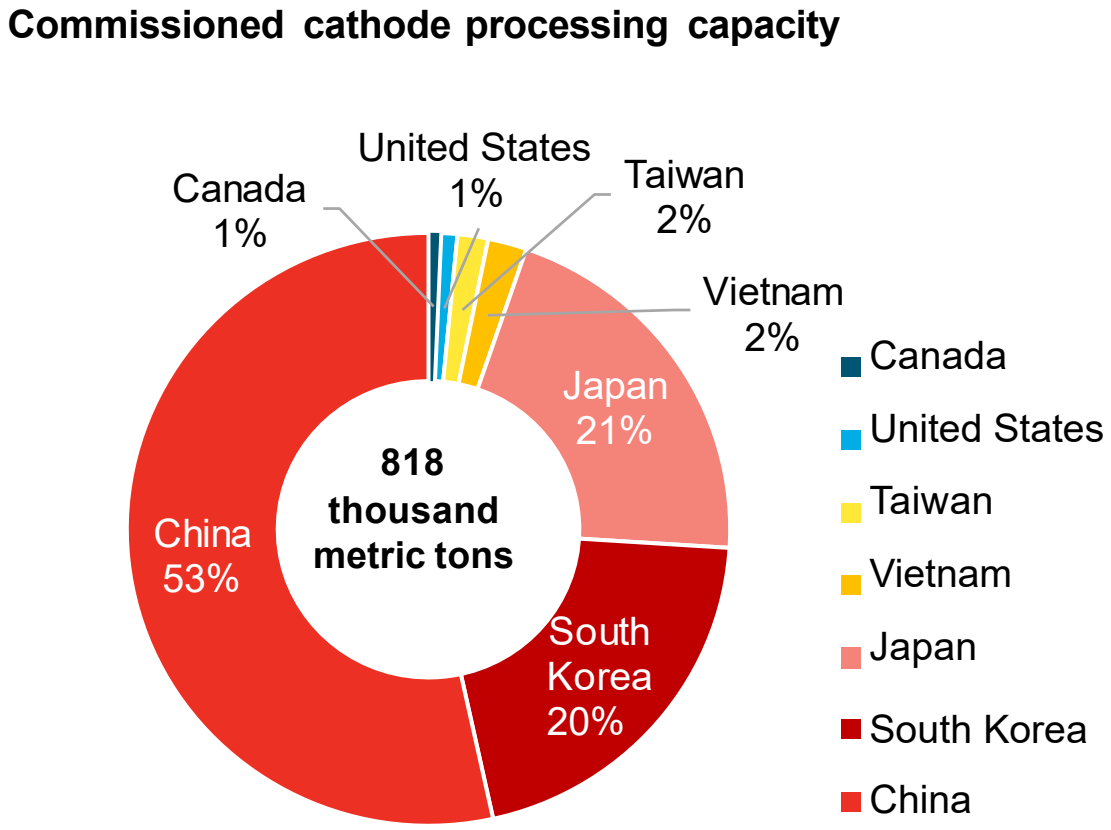
Source: BloombergNEF. Note: NMC is lithium nickel manganese cobalt oxide. NCA is lithium nickel cobalt aluminum oxide. LFP is lithium iron phosphate. NMCA is lithium nickel manganese cobalt aluminum oxide. LTO is lithium titanium oxide. Si-C complex is silicon-carbide inorganic complex compound.

Cell manufacturing capacity is due to quadruple based on existing announcements

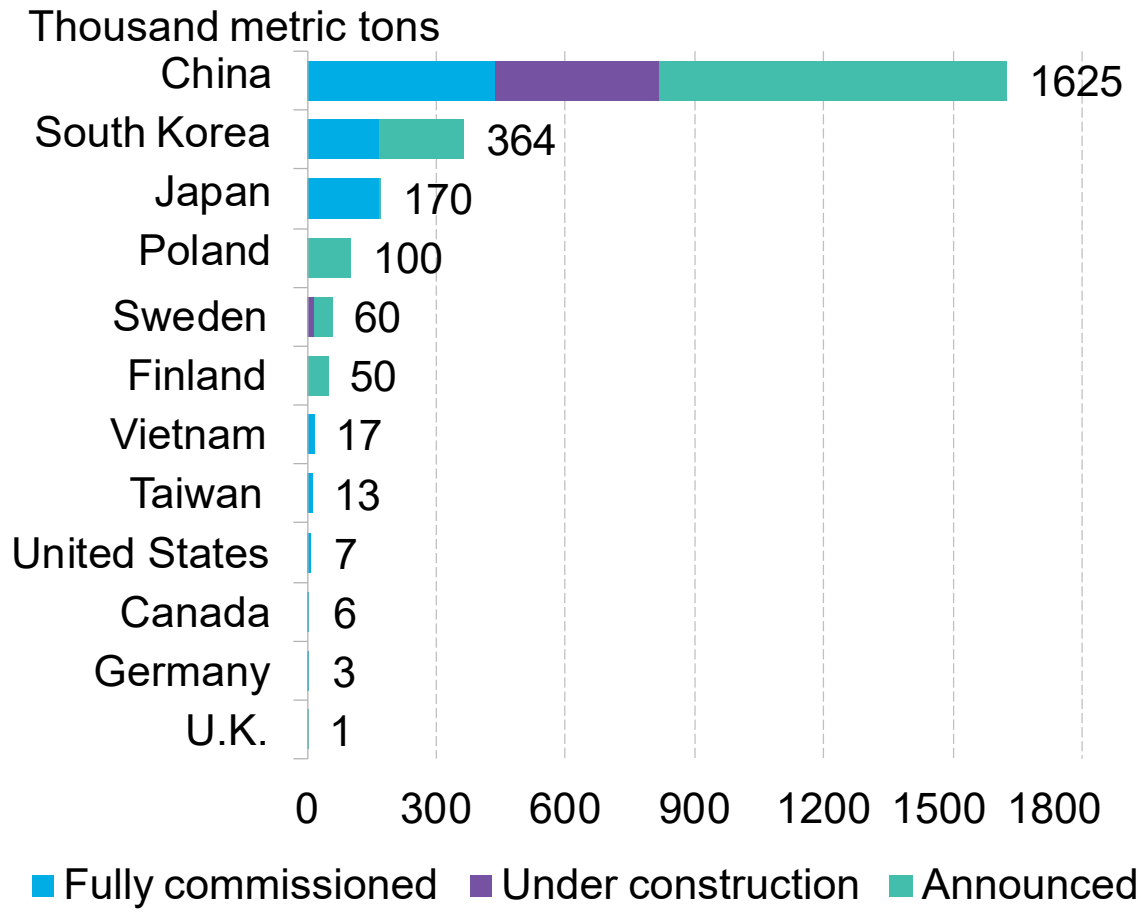


Source: BloombergNEF

Asia Pacific nations control most cathode processing capacity today

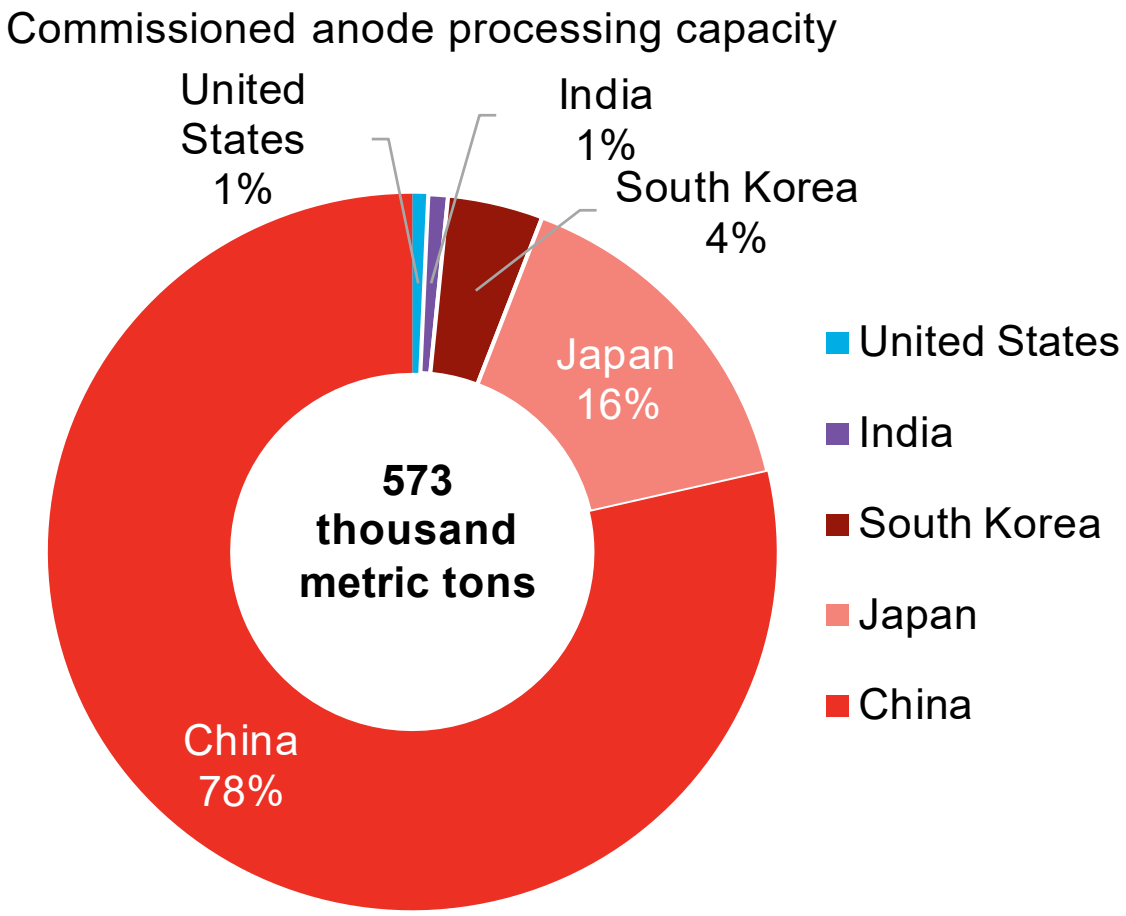


Source: BloombergNEF. Note: As of October 2020

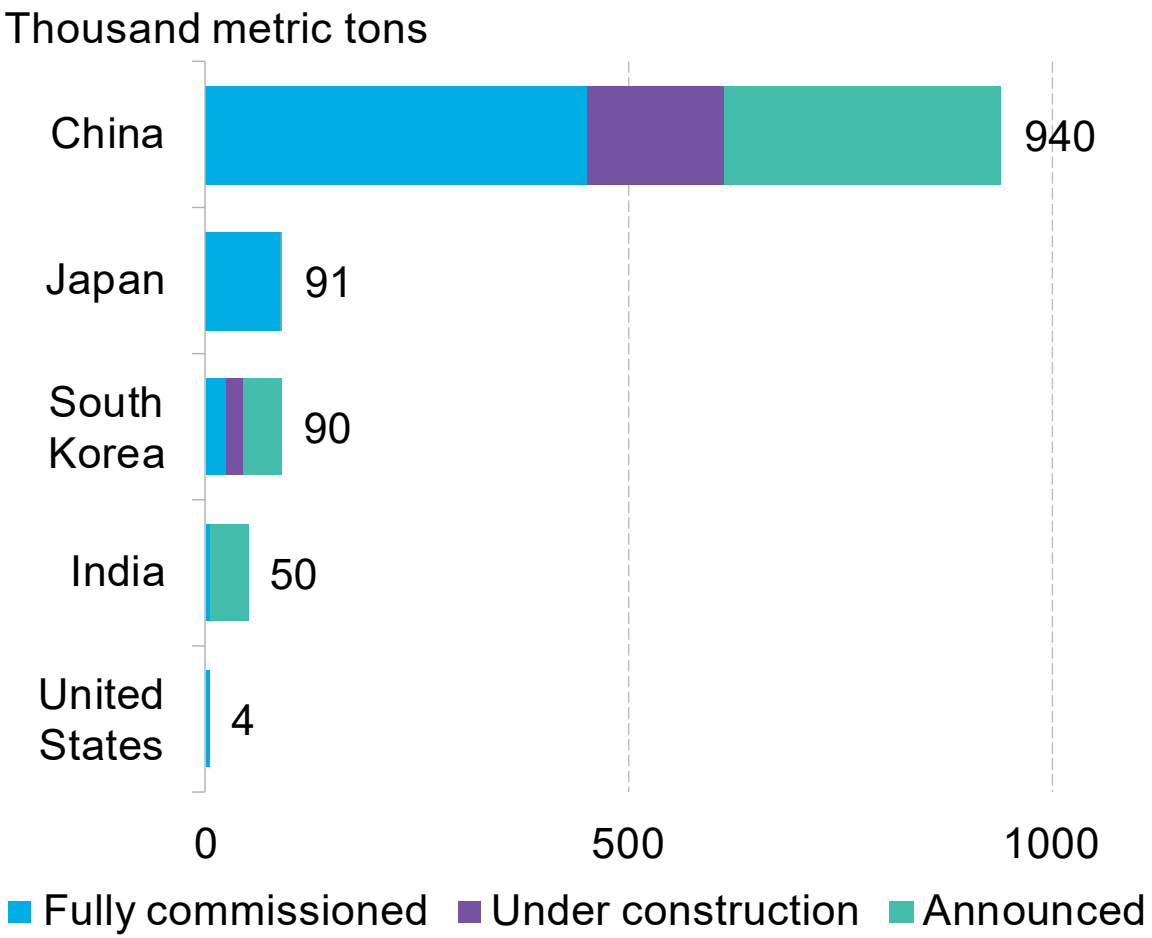


Source: BloombergNEF. Note: As of October 2020

Asia Pacific nations control most anode processing capacity today



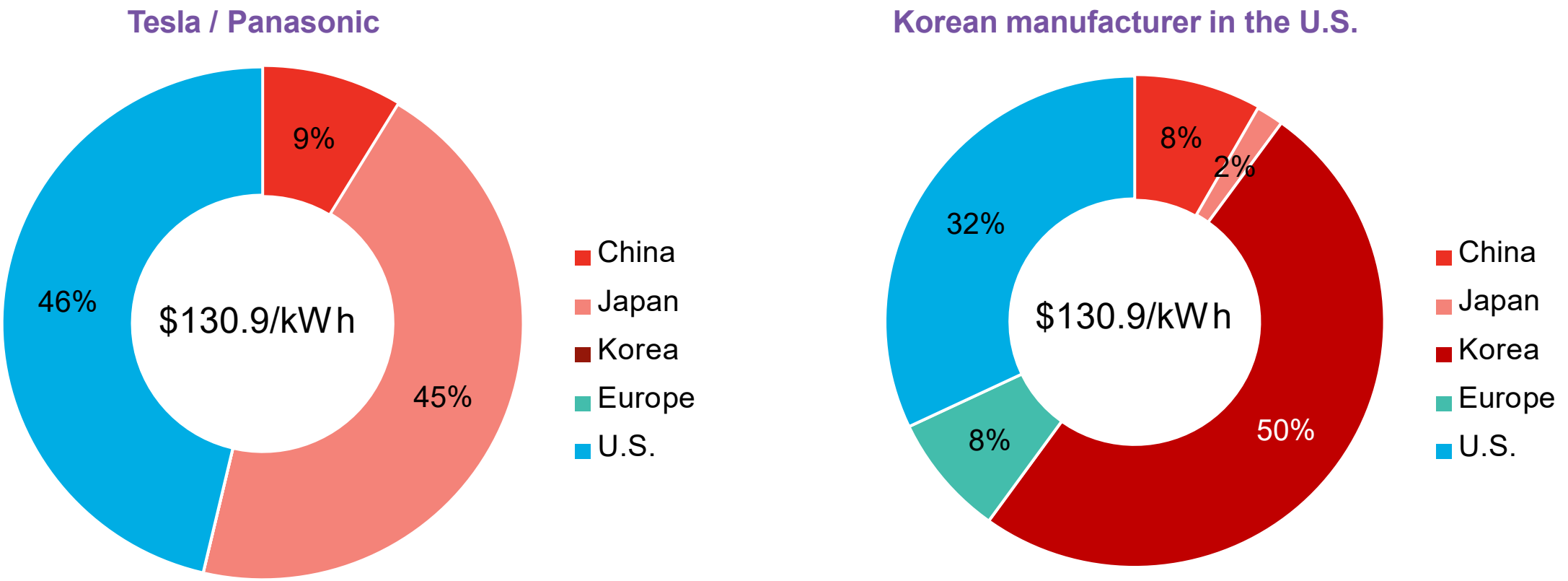
Source: BloombergNEF. Note: As of October 2020



Source: BloombergNEF. Note: As of October 2020

BloombergNEF

Estimated value break-out of a typical battery made in the U.S.



Source: BloombergNEF. Note: Both cost calculations are based on a 60Ah prismatic cell using NMC (622) chemistry. The cells are assumed to be produced at a 10GWh plant, which operates 330 days/year, 24 hours/day. Cell costs include cathode, anode, separator, electrolyte, labor, manufacturing and depreciation.

The U.S. lags APAC in attractiveness as a battery supply chain destination

Global lithium-ion battery supply chain ranking, 2020

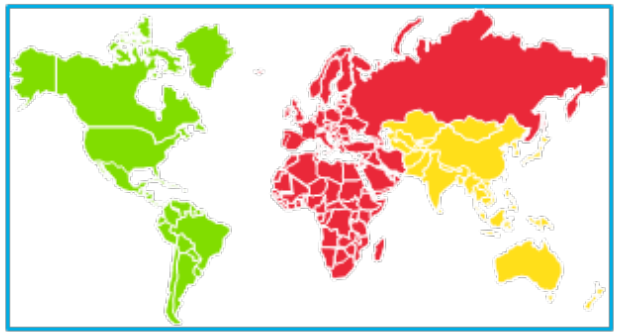
Rank	Country	Rank	Country	Rank	Country	Rank	Country	Rank	Country
1	China	6	U.S.	11	Australia	16	India	21	Indonesia
2	Japan	7	U.K.	12	Brazil	17	Chile	22	Mexico
3	South Korea	8	France	12	Hungary	18	Vietnam	23	Thailand
4	Canada	8	Finland	12	Poland	19	South Africa	24	D.R.C.
4	Germany	10	Sweden	15	Czech Rep.	20	Argentina	25	Philippines

Key: AMER, APAC, EMEA

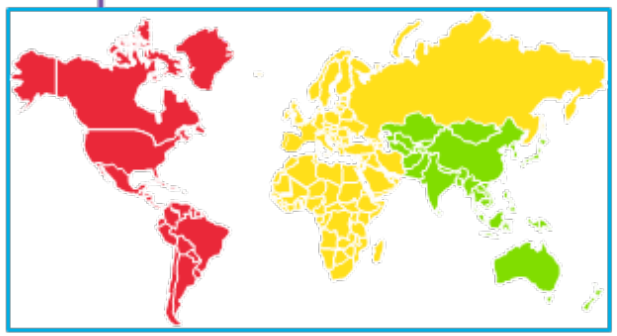
Source: BloombergNEF

Five criteria underpin BloombergNEF's global battery supply chain ranking

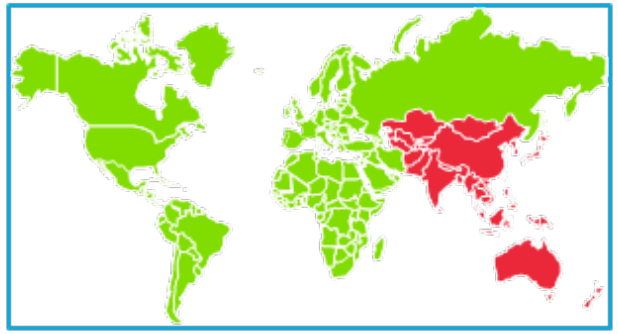
Raw materials



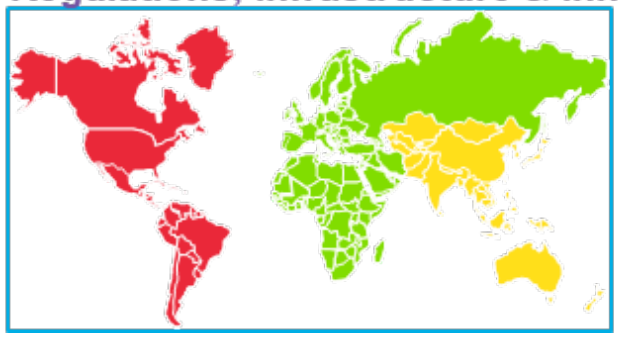
Components and cells



Environment



Regulations, Infrastructure & Innovation



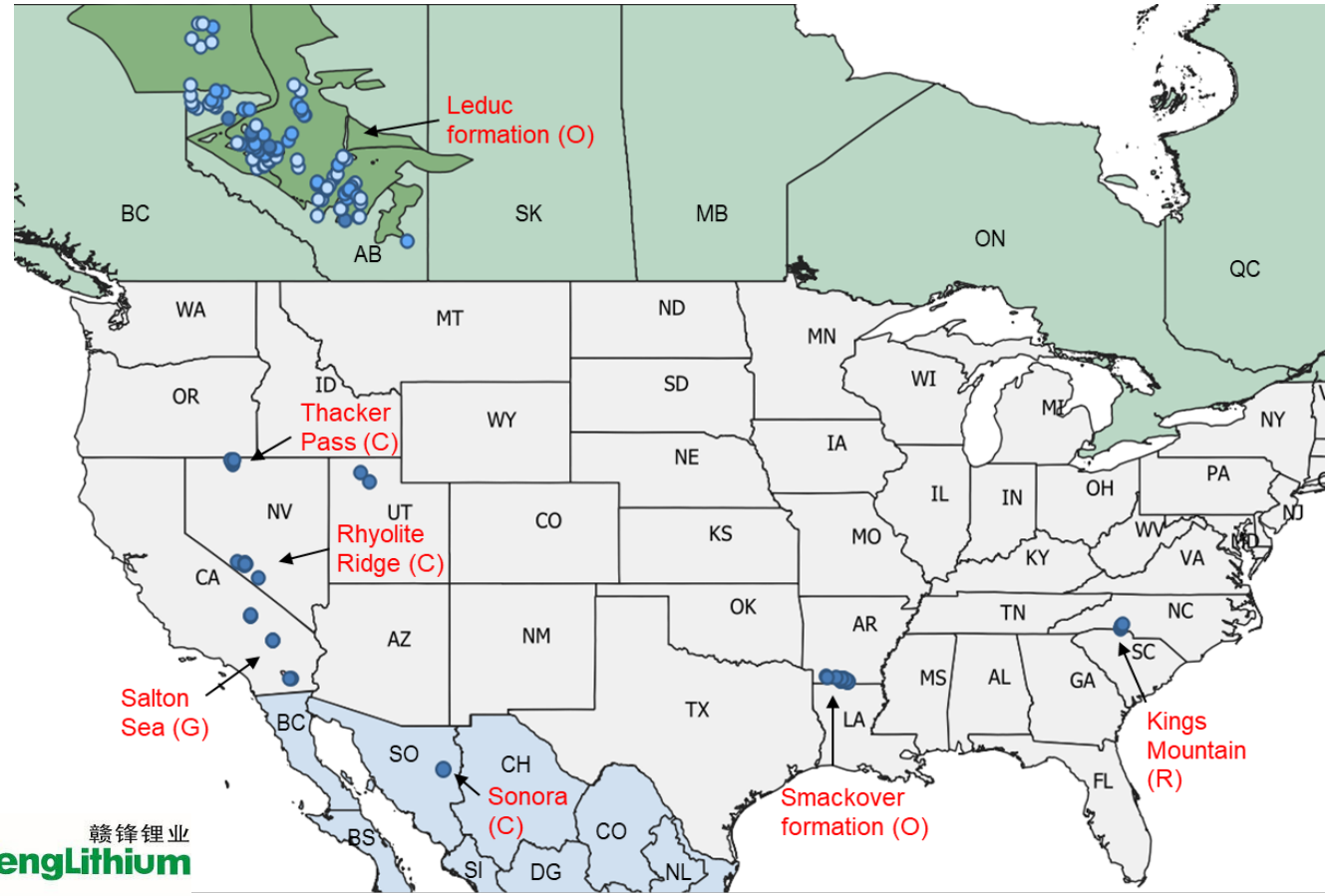
Demand

Regional rankings

1st 2nd 3rd

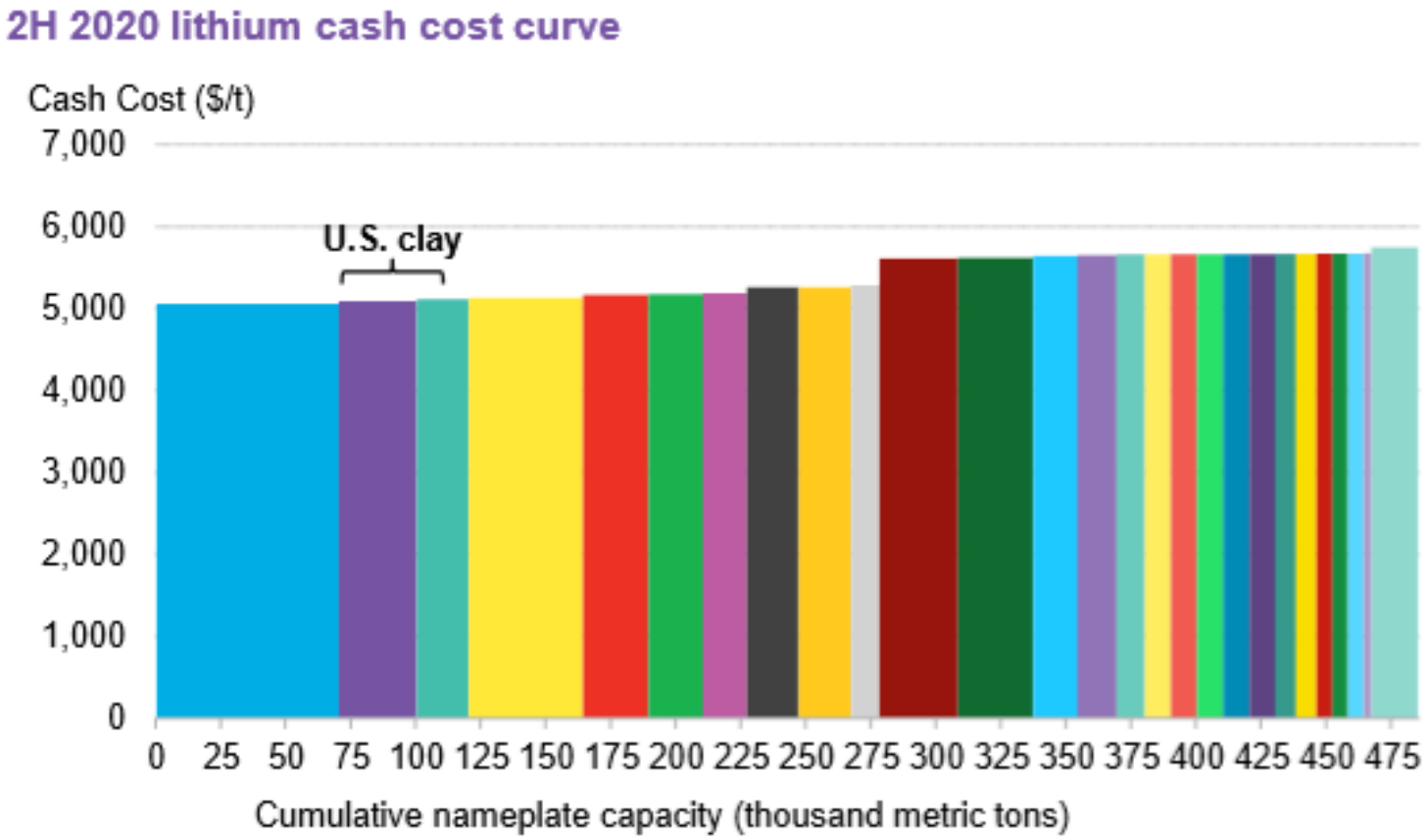
Source: BloombergNEF. Note: Green is first, yellow is second place and red third.

Rapidly growing demand creates opportunities for lithium in the U.S.



Source: BloombergNEF, USGS, company reports. Note: (C) = clay, (G) = geothermal, (O) = oilfield, (R) = hard rock. In Canada, darker dots mean higher lithium.

U.S. clay can be competitive on a cash cost basis



- **Factors to consider:**
- Local royalties and taxes
- Environmental permitting
- Best practice on indigenous & community rights
- Job opportunities and labor reconfiguration (as other industries are impacted)

- **Other routes to consider:**
- In-house mining vs. allies and investing abroad
- In-house mining vs. specializing in refining or manufacturing

Source: BloombergNEF Note: LCE = lithium carbonate equivalent; costs estimated with BNEF's Lithium Cost Calculator

The U.S. appears on track to improve its supply chain ranking

Global lithium-ion battery supply chain ranking, 2025

Rank	Country	Rank	Country	Rank	Country	Rank	Country	Rank	Country
1	China	6	Germany (▼2)	11	Australia	16	Czechia (▼1)	20	S. Africa (▼1)
2	Japan	7	Finland (▲1)	12	Brazil	16	Argentina (▲4)	22	Thailand (▲1)
3	U.S. (▲3)	8	U.K. (▼1)	13	Poland (▼1)	16	India	23	Vietnam (▼5)
4	Sweden (▲6)	8	S. Korea (▼5)	14	Chile (▲3)	16	Mexico (▲6)	24	Philippines (▲1)
5	Canada (▼1)	10	France (▼2)	15	Hungary (▼3)	20	Indonesia (▲1)	25	D.R.C (▼1)

Key: AMER, APAC, EMEA

Source: BloombergNEF

Thank you

Email: lgoldiescot@bloomberg.net

@LoganGoldieScot

Copyright and disclaimer

BloombergNEF (BNEF) is a leading provider of primary research on clean energy, advanced transport, digital industry, innovative materials, and commodities.

BNEF's global team leverages the world's most sophisticated data sets to create clear perspectives and in-depth forecasts that frame the financial, economic and policy implications of industry-transforming trends and technologies.

BNEF research and analysis is accessible via web and mobile platforms, as well as on the Bloomberg Terminal.

Coverage.

Clean energy
Advanced transport
Commodities
Digital industry

Get the app

On IOS + Android
about.bnef.com/mobile

BloombergNEF

Logan Goldie-Scot

Client enquiries:

Bloomberg Terminal: press <Help> key twice
Email: support.bnef@bloomberg.net

Learn more:

about.bnef.com | @BloombergNEF

Guest Presentation on the Global Lithium Market

- Logan Goldie-Scot,
  Head of Clean Power Research,
  BloombergNEF

Public Comment

Comment Instructions:

Limited to 3 minutes per comment

By computer: use the “raise hand” feature in Zoom

By telephone: dial *9 to “raise hand” and *6 to mute/unmute your phone line

Panel Discussion

- Michael McKibben,
  UC Riverside
- Jonathan M. Weisgall,
  Berkshire Hathaway Energy (BHE)
- Rod Colwell,
  Controlled Thermal Resources (CTR)

Salton Sea geothermal lithium: reserves and comparison with other lithium resources

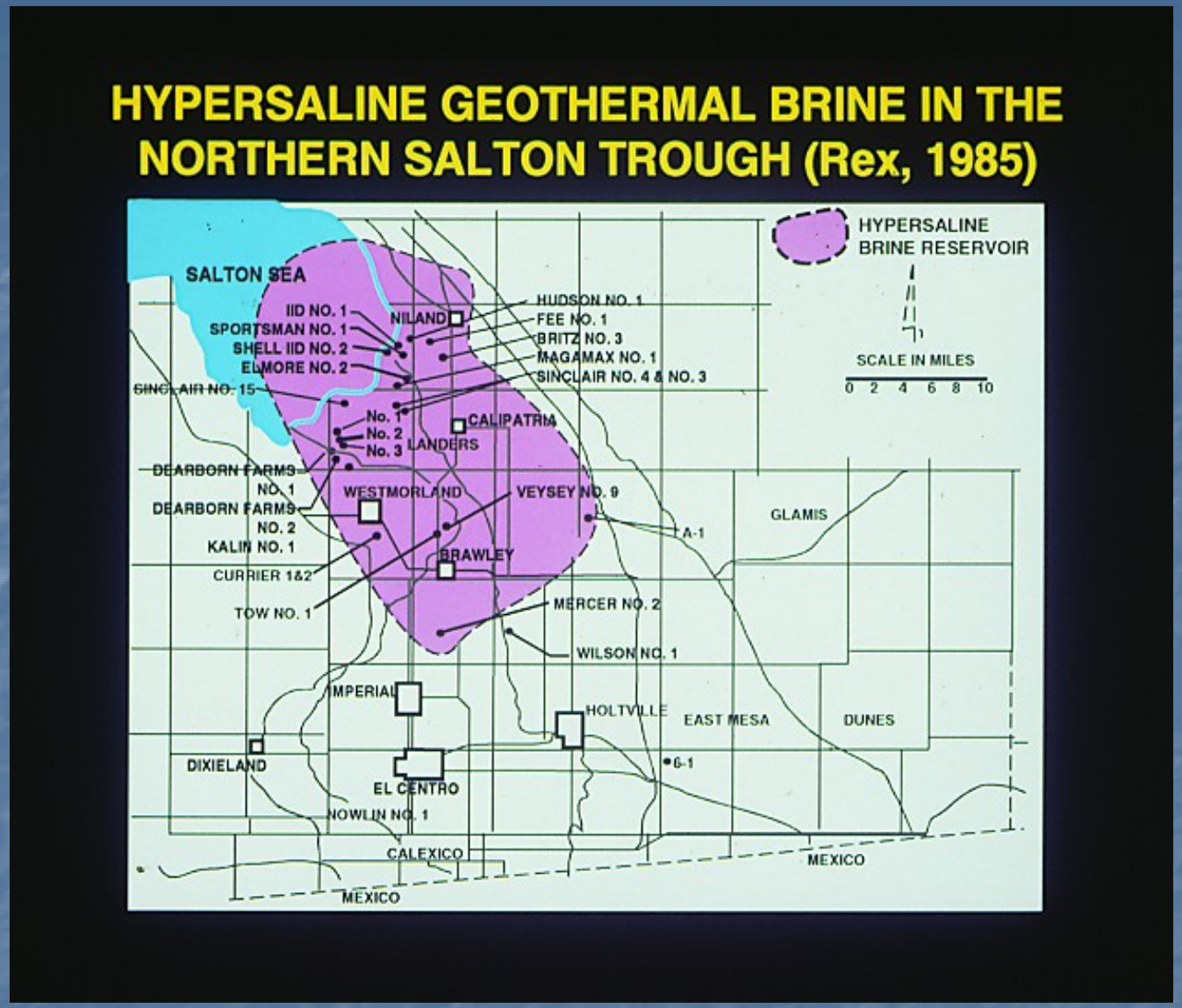
Michael A. McKibben, Ph.D.
Economic Geologist and Geochemist
Chair, Dept. of Earth and Planetary Sciences
U. C. Riverside
michael.mckibben@ucr.edu

Disclosure: I have been and am a consultant to some commercial parties on metallic resources in SSGF brines

"Bathtub ring" of tufa (limestone) from high stand of ancient Lake Cahuilla.

M. McKibben

- Hundreds to thousands of such episodes of lake formation and evaporation have occurred over millions of years in the northern part of the Imperial Valley.
- Have led to accumulation of a deep basinal NaCl brine pool beneath the Valley.



Hot brines in the Salton Sea geothermal field (SSGF) are relatively shallow and easy to exploit because they have been heated and brought near the surface by igneous processes (magma at depth).

As it ascends, chemical reaction of the hot NaCl brine diapir with the delta and lake sediments results in a Na-Ca-K-Cl metamorphic brine that is spectacularly enriched in valuable metals such as Fe, Mn, Zn, Pb and Li. Other brine diapirs may exist under the Imperial/Brawley areas.

Table 7.1. Representative flash-corrected chemical compositions of geothermal reservoir fluids in the Imperial and Mexicali Valleys (McKibben and Hardie, 1997).

Field:	*Salton Sea*	*Imperial*	*Cerro Prieto*	*East Mesa*	*Heber*
Well:	*S2–14*	*L2–28*	*M–5*	*6–1P*	*5*
Temperature(°C):	*330*	*275*	*300*	*~ 190*	*195*
Depth (m):	*2500–3220*	*3290–4270*	*~ 1200*	*~ 2164*	*~ 1800*
Na	54,800	50,466	5,004	6,362	4,019
Ca	28,500	18,140	284	759	750
K	17,700	9,555	1,203	1,124	333
Fe	1,710	3,219	<1	NA	NA
Mn	1,500	985	1	NA	NA
SiO_2	>588	465	569	257	237
Zn	507	1,155	NA	NA	NA
Sr	421	1,500	NA	NA	41
B	271	217	11	NA	4
Ba	~ 210	2,031	NA	NA	4
Li	209	252	13	NA	7
Mg	49	299	<1	9	2
Pb	102	>262	NA	NA	NA
Cu	7	>1	NA	NA	NA
Cd	2	4	NA	NA	NA
NH_4	330	NA	NA	NA	6
Cl	157,500	131,000	9,370	11,668	7,758
Br	111	NA	31	NA	NA
CO_2	1,580	30,000	2,400	NA	186
HCO_3	NA	NA	NA	221	NA
H_2S	10	>47	180	NA	1
SO_4	53	NA	4	51	66
TDS	26.5%	25.0%	1.6%	2.2%	1.3%

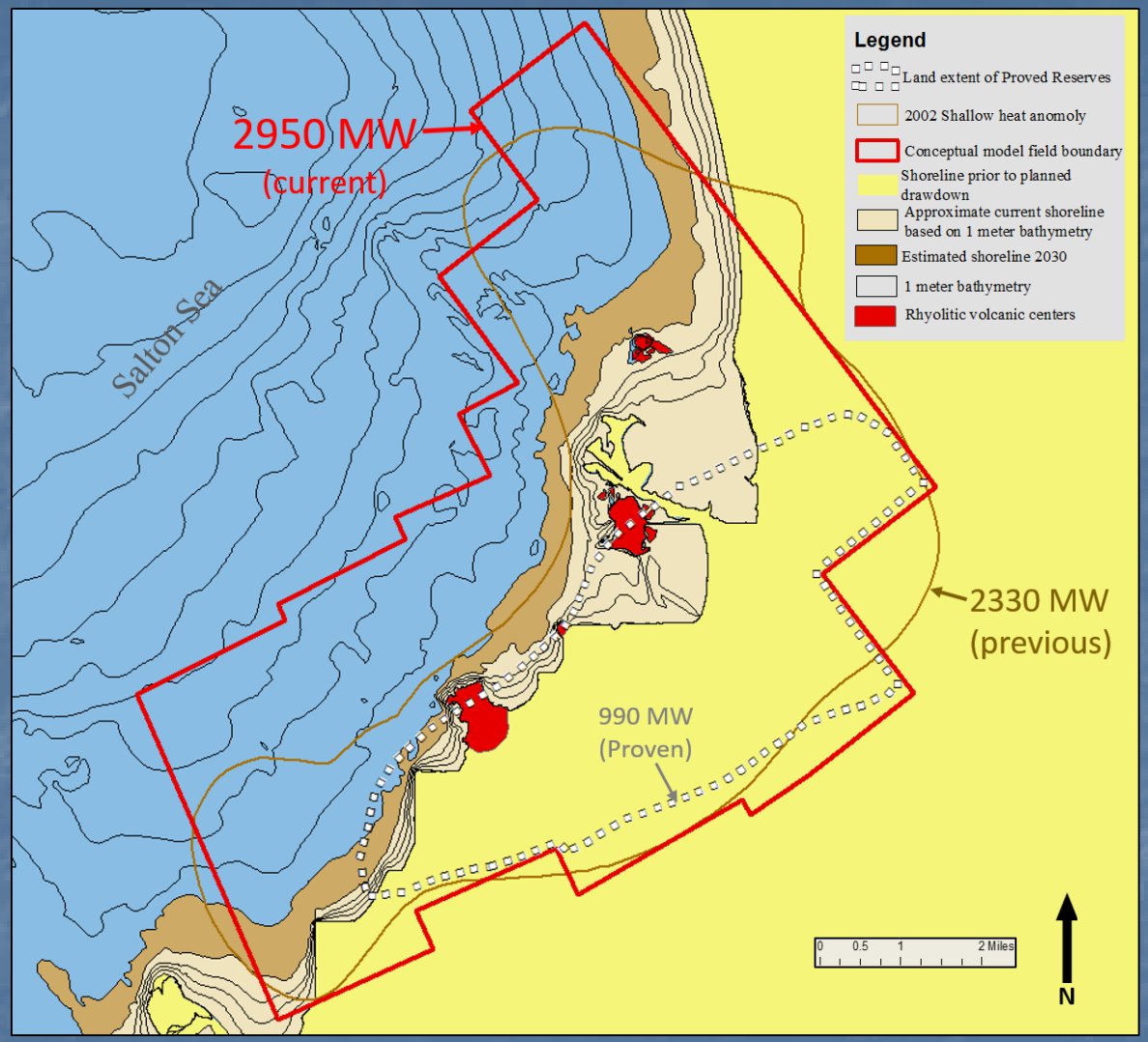
What is the volume of the hot SSGF brine reservoir?

Installed capacity:
414 MW

Ultimate capacity:
2330-2950 MW
(6 times installed)

Porosity: 10 to 20%

5.5 to 33 km^3 of brine



Kaspereit et al., 2016

SSGF Li "reserves" calculations (McKibben et al., 2021):

1 million to 6 million metric tons of lithium equivalent reserves.

Far more than total U.S. reserves of Li from traditional sources.

Comparable to the reserves of the four major global producers:

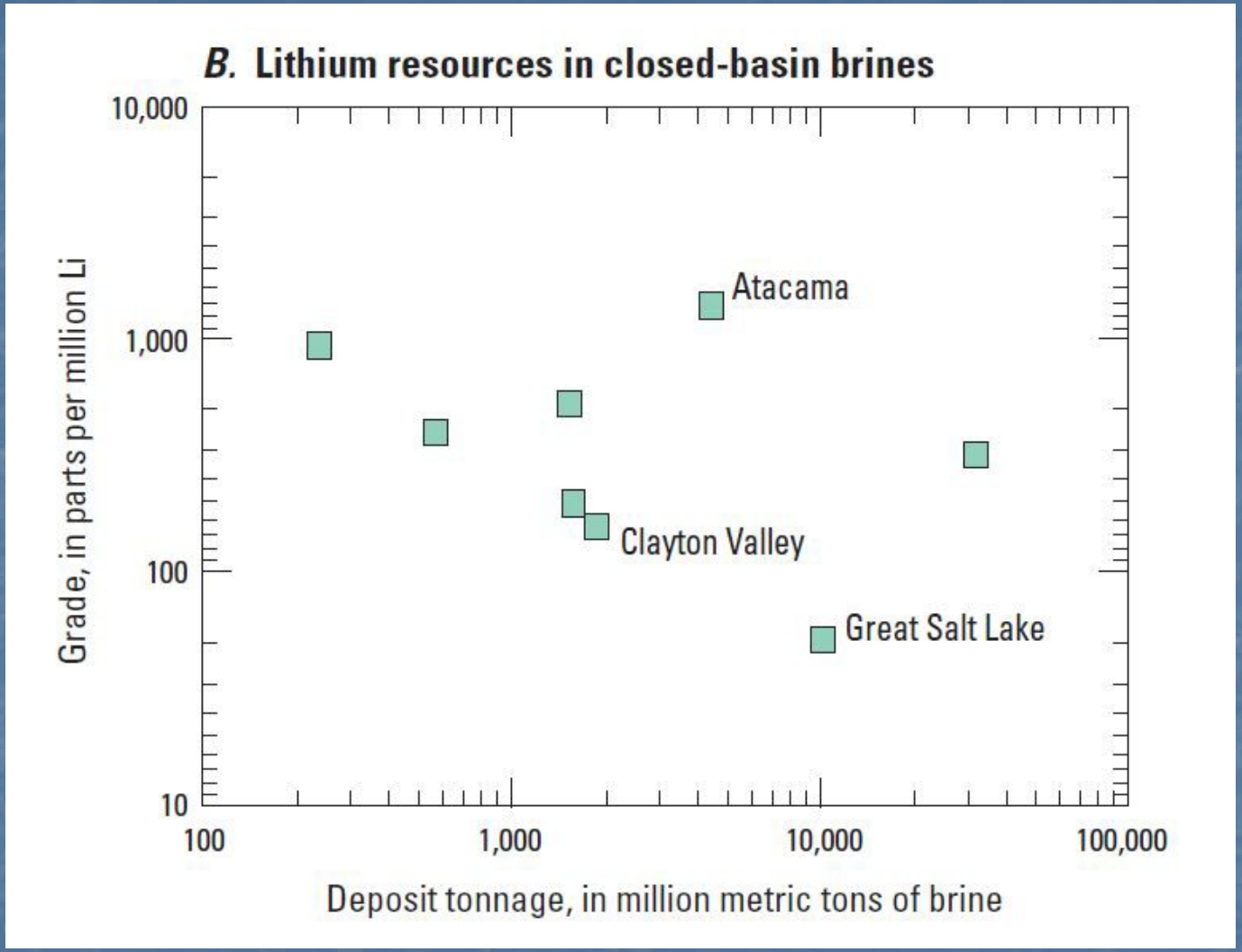
World Mine Production and Reserves: Reserves for Argentina, Australia, Canada, Chile, China, the United States, Zimbabwe, and other countries were revised based on new information from Government and industry sources.

	Mine production		Reserves[5]
	2019	2020[e]	
United States	W	W	750,000
Argentina	6,300	6,200	1,900,000
Australia	45,000	40,000	[6]4,700,000
Brazil	2,400	1,900	95,000
Canada	200	—	530,000
Chile	19,300	18,000	9,200,000
China	10,800	14,000	1,500,000
Portugal	900	900	60,000
Zimbabwe	1,200	1,200	220,000
Other countries[7]	—	—	2,100,000
World total (rounded)	[8]86,000	[8]82,000	21,000,000

World Resources:[5] Owing to continuing exploration, identified lithium resources have increased substantially worldwide and total about 86 million tons. Lithium resources in the United States—from continental brines, geothermal brines, hectorite, oilfield brines, and pegmatites—are 7.9 million tons. Lithium resources in other countries have been revised to 78 million tons. Lithium resources are Bolivia, 21 million tons; Argentina, 19.3 million tons; Chile, 9.6 million tons; Australia, 6.4 million tons; China, 5.1 million tons; Congo (Kinshasa), 3 million tons; Canada, 2.9 million tons; Germany, 2.7 million tons; Mexico, 1.7 million tons; Czechia, 1.3 million tons; Serbia, 1.2 million tons; Peru, 880,000 tons; Mali, 700,000 tons; Zimbabwe, 500,000 tons; Brazil, 470,000 tons; Spain, 300,000 tons; Portugal, 270,000 tons; Ghana, 90,000 tons; and Austria, Finland, Kazakhstan, and Namibia, 50,000 tons each.

USGS Mineral Commodity Summaries (2021)

SSGF has the largest "tonnage" of any known Li brine deposit



SSGF

Bradley et al. (2017)

SSGF production and depletion scenarios:

Besseling (2018) – Production from CalEnergy/BHE plants:

Current capacity (350 MW)

17,000 metric tons per year lithium equivalent

Future capacity (700 MW)

40,000 metric tons per year lithium equivalent

Reserves	Annual depletion rate		Years of production	
	350 MW	700 MW	350 MW	700 MW
1 M tons	1.7%	4.0%	59	25
6 M tons	0.28%	0.67%	353	150

So Li production appears sustainable, but we need a far more dynamic Li reservoir model that takes into consideration more factors such as reinjection and Li replenishment.

BERKELEY LAB

EARTH & ENVIRONMENTAL SCIENCES

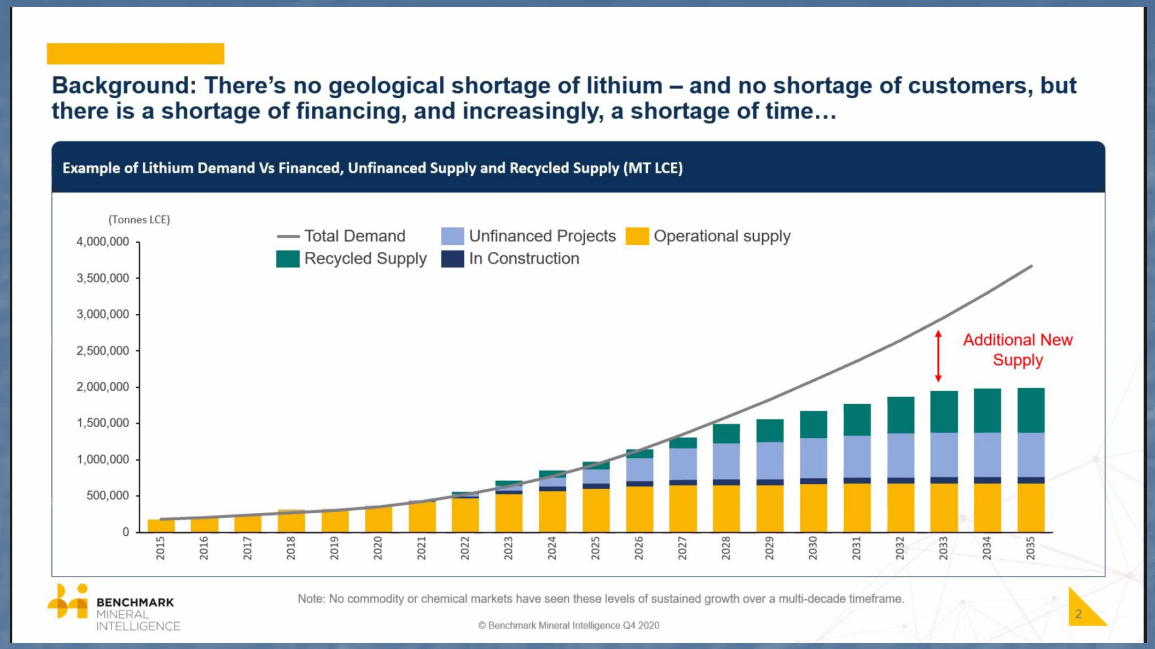
Improved quantification of Li resources for Lithium Valley – A research proposal

Pat Dobson, Eric Sonnenthal, Will Stringfellow (LBNL), Mike McKibben (UC Riverside), Sabodh Garg (Geologica)

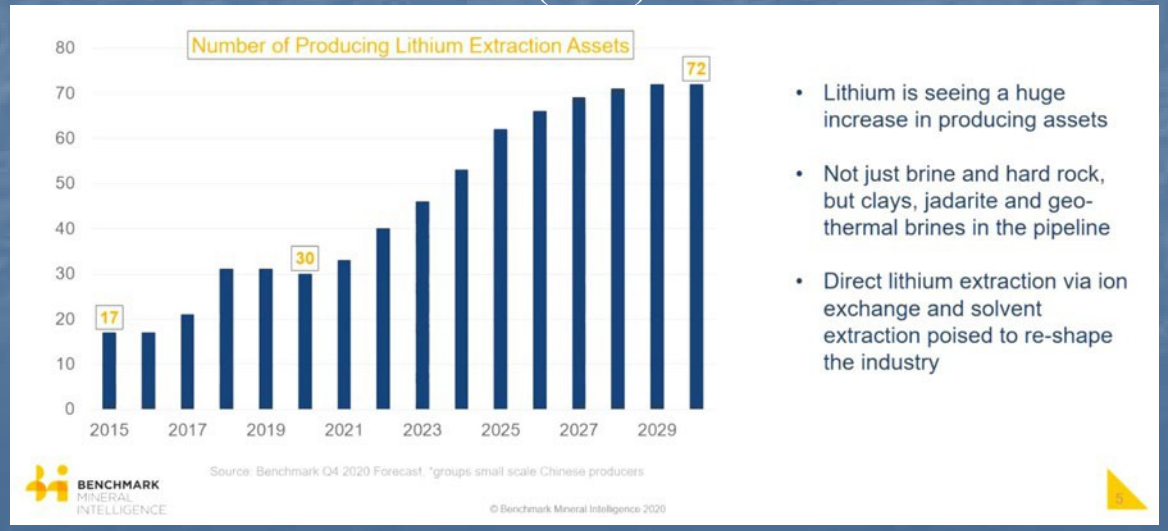
Key questions:

1. **How much Li is present** in the Salton Sea geothermal reservoir?
    - Li resource estimates from brine production rates and Li contents
    - Li resource estimates from reservoir volume and Li contents
2. How much Li is **recoverable** (depends in part on extraction technology)?
3. How rapidly will the **Li concentration of the brine decrease** as Li is recovered and spent brine is reinjected (resource sustainability)?
4. Would Li in reservoir rocks "**recharge**" geothermal brines?

Salton Sea Li can clearly help fill the looming supply gap:



BMI (2021)



But there will be cost competition, especially from *similar* Direct Lithium Extraction (DLE) brine projects that are coming online.

e.g. Clayton Valley, NV - Schlumberger New Energy - DLE pilot plant to *replace* traditional evaporation/precipitation process by end of 2021.

DLE as a “bolt-on technology” to existing brine flow operations:

Smackover Formation, Arkansas

(Standard Lithium/LAXNESS)

Add-on to existing extraction of bromine from warm oil field brines

Fiberglass tanks, PVC pipes

590,000 tons Li under 150,000 acres

Target production is 13,000 tpa Li

Alberta oilfield brines

Clearwater Project

(E3 Metals Corp)

1,300,000 tons Li

Target 25,000 tpa Li

E3MC (2021)

R. Mintak (2021)

Smackover and Alberta projects are already surrounded by existing oil field and chemical processing infrastructure as well as a skilled workforce population.

Lithium Valley Commission
March 25, 2021 Meeting
BHE Renewables Update

Jonathan Weisgall
Vice President, Government Relations
Berkshire Hathaway Energy

CalEnergy Geothermal Plants
Imperial Valley

CalEnergy 50 MW Elmore Facility

Status and Timelines

- California Energy Commission grant May 2020
  - $6 million: demonstration project to recover lithium from geothermal brine
  - Match with at least $4 million of corporate funds
  - Groundbreaking April 2021
  - Goal to be in service January 2022
- Department of Energy grant January 2021
  - $14.9 million: (1) demonstration project to convert lithium chloride into battery-grade lithium hydroxide; (2) fund engineering for full-scale commercial operations
  - Match with $14.9 million of corporate funds
  - Sign contract spring 2021
  - Goal to be in service fall 2022

Hard Rock Mining (Western Australia)

Photo credit: FollowCN

Hard Rock Mining (Western Australia)

Photo credit: John Banagan

Lithium Brine Pools in Atacama Desert, Chile

Photo credit: Matjaż Krivic

Lithium Brine Pools in Atacama Desert, Chile

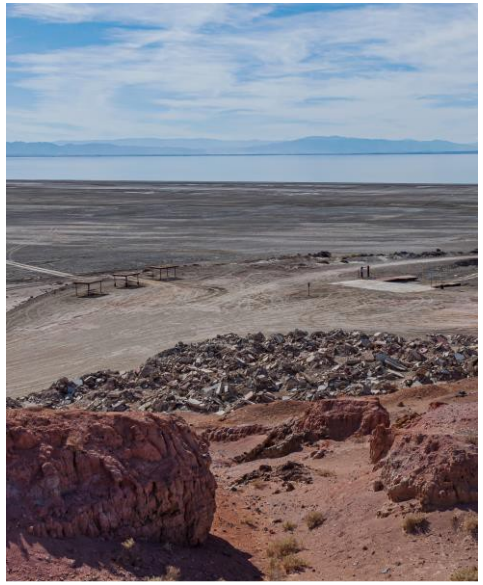
Photo credit: Reuters

Berkshire Hathaway Energy

The POWER of California's

CONTROLLED THERMAL RESOURCES

Lithium Valley



4,000+ Jobs

Reliable Clean Energy

New Lithium Economy

Salton Sea Repair

Hell's Kitchen Lithium and Power

- Located in the largest known geothermal resource in the world.
- The Salton Sea Geothermal Field in Imperial Valley, California represents a proven and defined geothermal power and mineralized brine resource.

Project Snapshot

Hell's Kitchen Power – Stage 1: 2023

49.9 megawatts

Hell's Kitchen Lithium – Stage 1: 2023/2024

20,000tpa LCE

Future stages developed to meet market demands

Total Hell's Kitchen Lithium capacity:

~300,000 tonnes LCE per annum

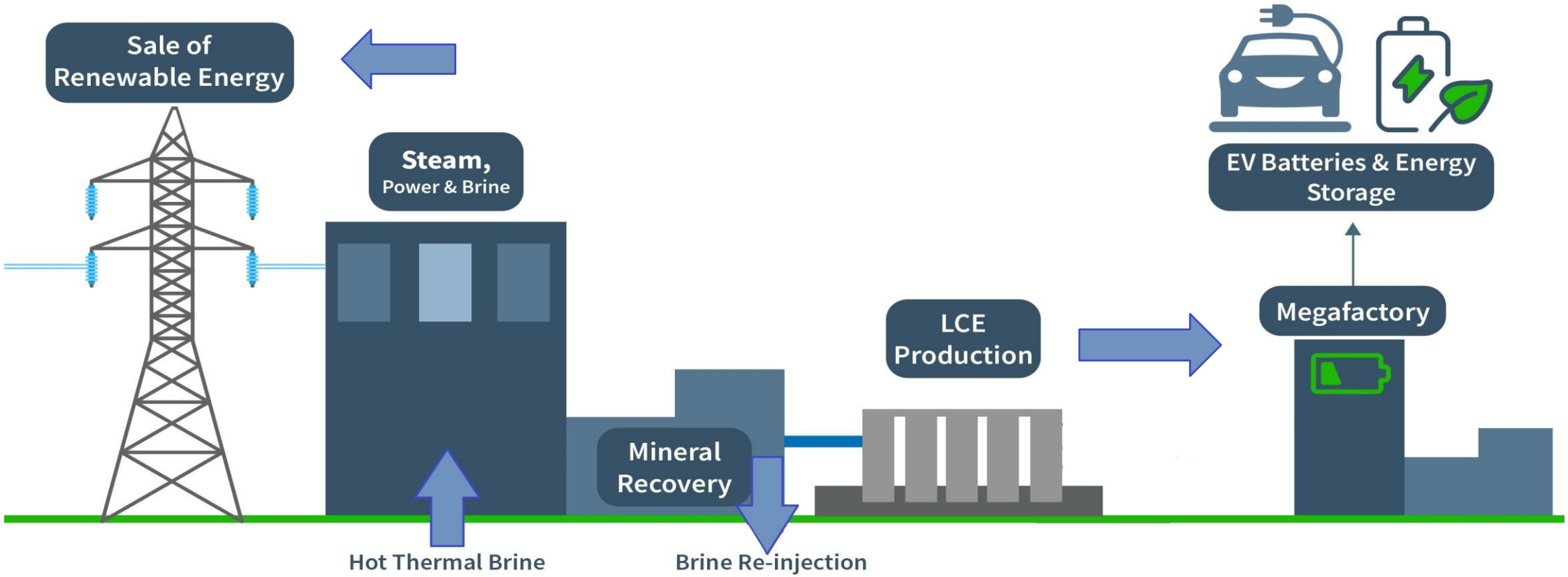
Total Hell's Kitchen Power capacity:

~1,100 megawatts

Geothermal operations have operated in this field for over 35 years

Additional mineral resources include potassium, zinc, manganese, iron and rubidium

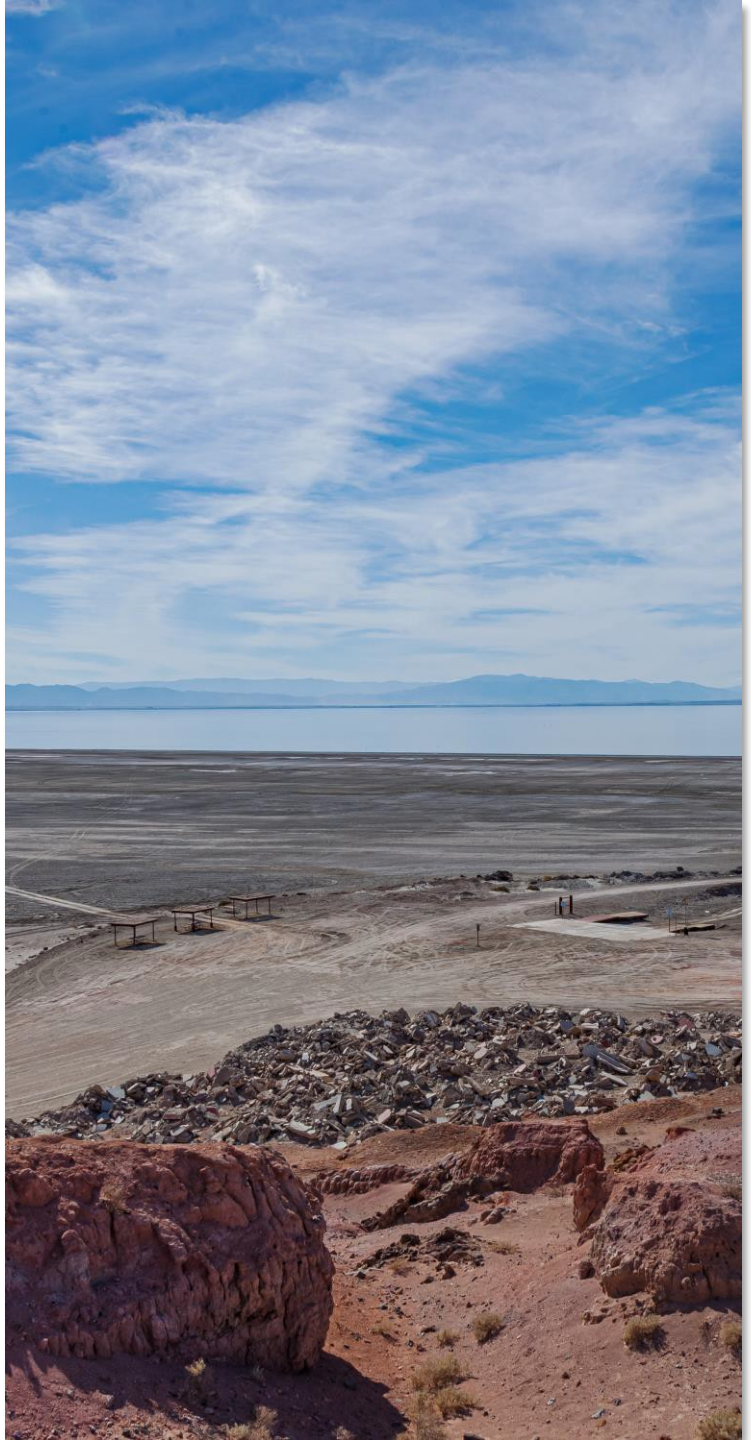
The power to re-imagine and evolve



Geothermal operations – Salton Sea

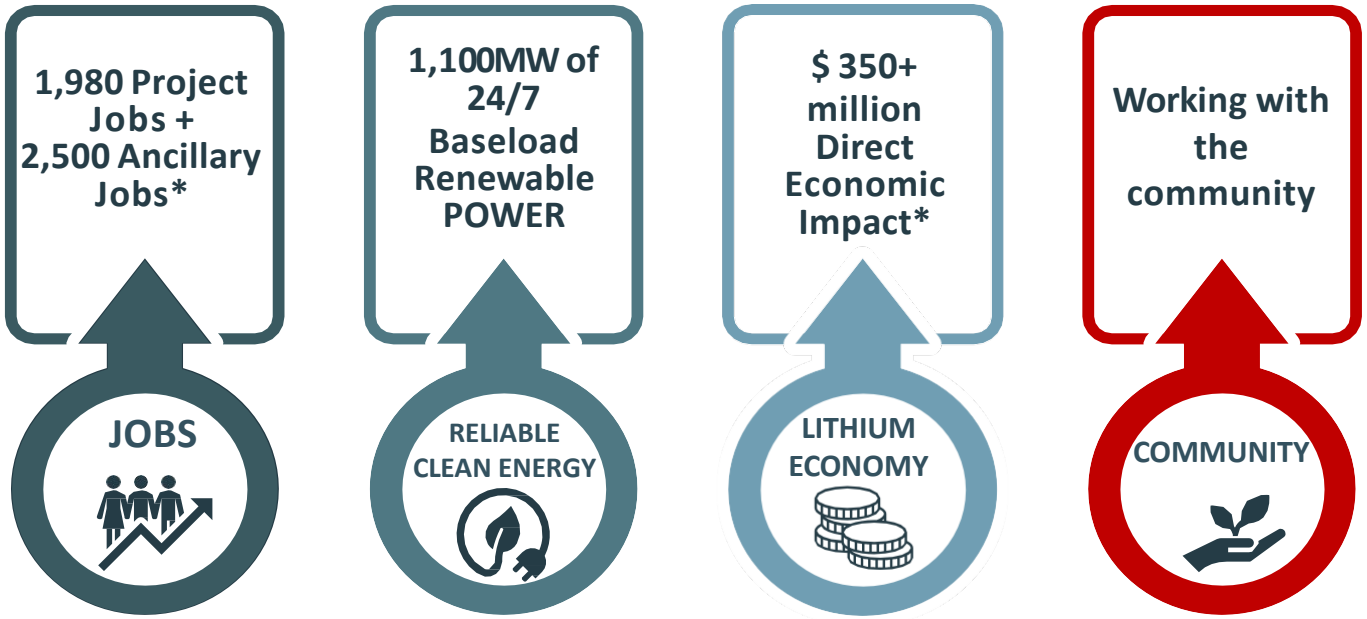
A sustainable process, eliminating high impact mining.

GEOTHERMAL BRINE LITHIUM	SALARS (EVAPORATION PONDS)	OPEN PIT MINING (SPODUMENE / CLAYS)
		
+ Small physical footprint	— Large physical footprint	— Large physical footprint
+ No open-pit mining	— Requires evaporation ponds	— Permanent environmental effects
+ No evaporation ponds	— Residual salt waste can be toxic	— Large amounts of tailings
+ Powered by renewable energy	— Large amounts of water lost	— Generally processed overseas
+ Ideal for OEM sustainability	— Longer production lead times	— Longer production lead times



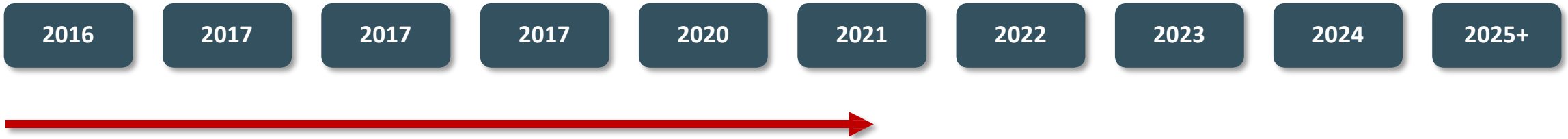
Key benefits

- Creates new union project and construction jobs and ancillary jobs for the California economic recovery from the COVID-19 State of Emergency
- Develops Critical U.S. Energy Infrastructure
- Provides Critical U.S. Minerals
- Dust abatement in an area designated as an Imperial County State of Emergency



*Source: Imperial Valley Economic Development Corporation – Hell's Kitchen Lithium and Power Project: Economic Impact Analysis (Total Capacity)

Hell's Kitchen Development Timeline



Site Control and Development – COMPLETED:

- Large geothermal leasehold secured including all minerals rights
- Seismic Survey and Geophysical Model
- 43-101 Preliminary Economic Assessment with Hatch
- Interconnection Studies and Queue Position
- Delineation Drilling Permits
- Secured grants from California Energy Commission for mineral extraction

Power 1 and Lithium 1A Construction

Power 1 and Lithium 1 Operations

Future Expansion

Power Purchase Agreement signed with IID

CHALLENGES

Hell's Kitchen Lithium and Power Site

- Investment in large scale mining projects is challenging due to the length of time for permitting and approvals.
- California's complex requirements can create challenges to project timelines, cost efficiencies and future development.
- Incentives to attract manufacturing (which creates thousands of jobs) is highly competitive in other states.
- There is no standardized mechanism for companies to contribute to the Salton Sea mitigation efforts.

SOLUTIONS

- Activate federal support to streamline permitting at the administrative level, including potentially declaring Lithium Valley as "high priority" or "major infrastructure projects."
- Expand Environmental Leadership Projects to include geothermal power, enabling CEQA streamlining.
- Establish a Lithium Valley "Opportunity" or "Enterprise" zone and actively support Bills – AB 1397 and AB 1161
- Encourage State and Federal support to incentivize the development of cathode and battery manufacturing to create the world's first Clean Energy & Auto Hub.

CONTROLLED THERMAL RESOURCES

CTR is committed to creating a thriving, safe and sustainable future for generations to come.

447 West Aten Road, Suite G
Imperial, California USA 92251
www.cthermal.com
info@cthermal.com

Forward looking statements:

Some statements in this presentation contain forward-looking information. These statements address future events and conditions and, as such, involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the statements. Such factors include without limitation the completion of planned expenditures, the ability to complete development programs on schedule and the success of development programs.

Panel Discussion

- Michael McKibben,
  UC Riverside
- Jonathan M. Weisgall,
  Berkshire Hathaway Energy (BHE)
- Rod Colwell,
  Controlled Thermal Resources (CTR)

Public Comment

Comment Instructions:

Limited to 3 minutes per comment

By computer: use the “raise hand” feature in Zoom

By telephone: dial *9 to “raise hand” and *6 to mute/unmute your phone line

Media and Legislation Updates

Public Comment

Comment Instructions:

Limited to 3 minutes per comment

By computer: use the “raise hand” feature in Zoom

By telephone: dial *9 to “raise hand” and *6 to mute/unmute your phone line

Future Meetings Discussion

- Determination of:
    - Agenda Topics
    - Speakers
    - Presentations

Public Comment

Comment Instructions:

Limited to 3 minutes per comment

By computer: use the “raise hand” feature in Zoom

By telephone: dial *9 to “raise hand” and *6 to mute/unmute your phone line

Adjourn

Webpage: https://www.energy.ca.gov/data-reports/california-power-generation-and-power-sources/geothermal-energy/lithium-valley
List Serv: Lithium Valley Commission

Thank you!

LithiumValleyCommission@energy.ca.gov

Break

LithiumValleyCommission@energy.ca.gov