

DECARBONIZATION IN INDONESIA JAPAN SUPPORT AND PROBLEM

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Topic

- Decarbonization in Indonesia
- Japan's role and issue:
 - -JETP
 - -ETM
 - -co-firing
 - -CCS
 - -etc



Decarbonization

- LTS-LCCR 2050

- Long-Term Strategy on Low Carbon and Climate Resilient Development 2050

https://unfccc.int/sites/default/files/resource/Indonesia_LTS-LCCR_2021.pdf

- INDC

https://www4.unfccc.int/sites/submissions/INDC/Published%20Documents/Indonesia/1/INDC_REPUBLIC%20OF%20INDONESIA.pdf



INDC

Table 1. Projected BAU and emission reduction from each sector category

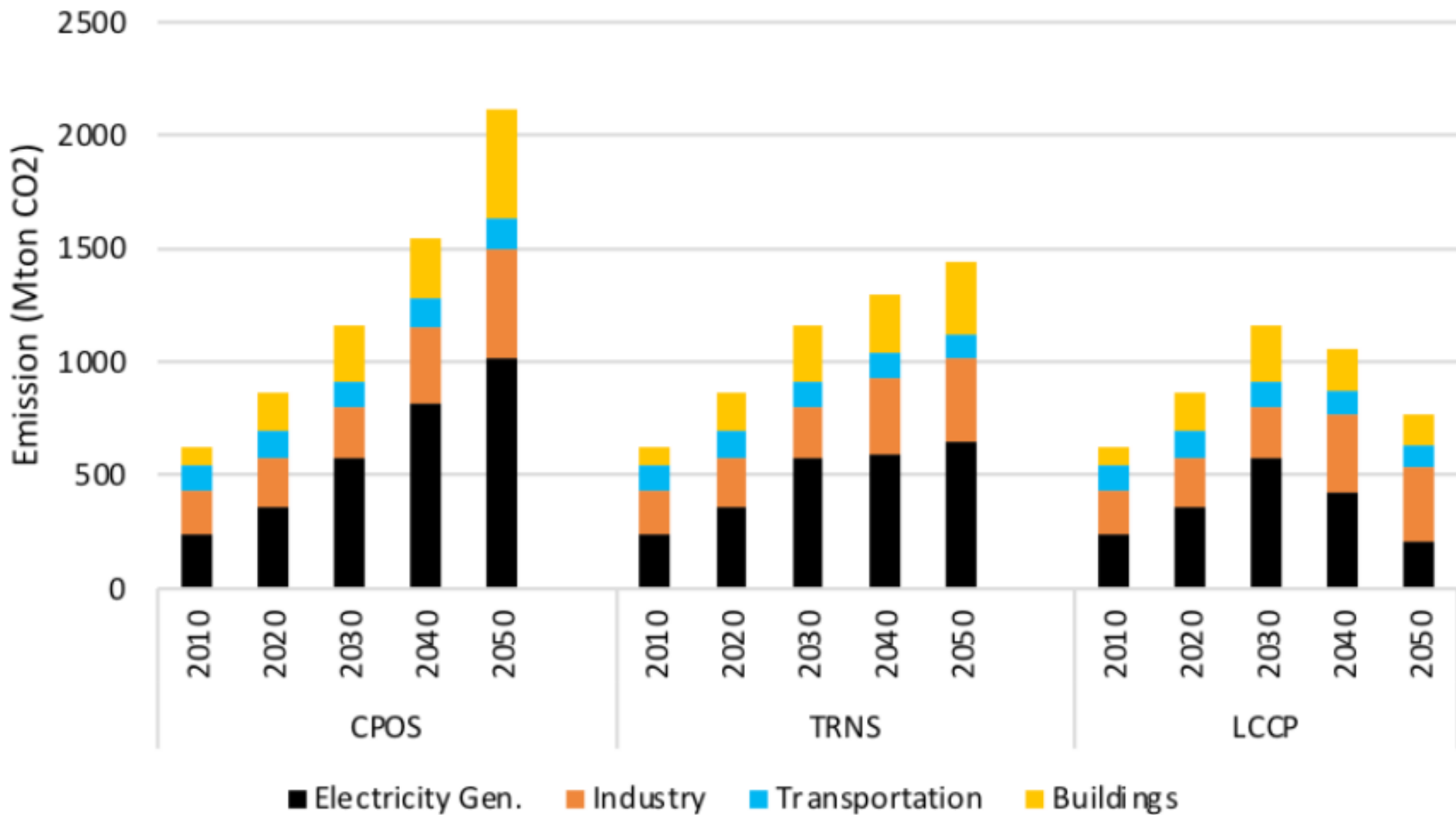
Sector	GHG Emission Level 2010* (MTon CO _{2e})	GHG Emission Level 2030			GHG Emission Reduction				Annual Average Growth BAU (2010-2030)	Average Growth 2000-2012
		MTon CO _{2e}			MTon CO _{2e}		% of Total BaU			
		BaU	CM1	CM2	CM1	CM2	CM1	CM2		
1. Energy*	453.2	1,669	1,355	1,407	314	441	11%	15.5%	6.7%	4.50%
2. Waste	88	296	285	270	11	26	0.38%	1.0%	6.3%	4.00%
3. IPPU	36	69.6	66.85	66.35	2.75	3.25	0.10%	0.11%	3.4%	0.10%
4. Agriculture	110.5	119.66	110.39	115.86	9	4	0.32%	0.13%	0.4%	1.30%
5. Forestry and Other Land Uses (FOLU)	647	714	217	68	497	692	17.2%	24.5%	0.5%	2.70%
TOTAL	1,334	2,869	2,034	1,927	834	1,166	29%	41%	3.9%	3.20%

*Including fugitive

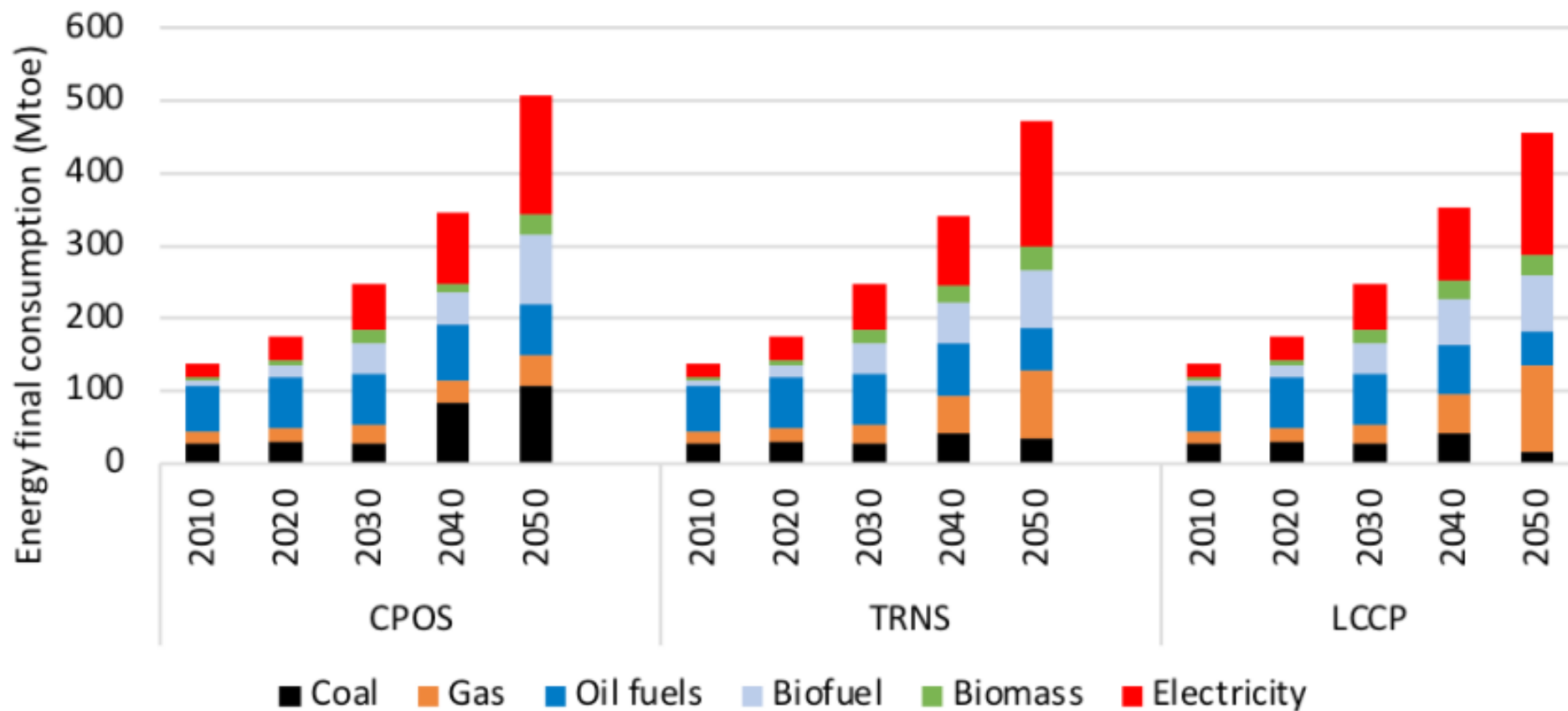
Notes: **CM1**= Counter Measure 1 (*unconditional mitigation scenario*)

CM2= Counter Measure 2 (*conditional mitigation scenario*)

LTS-LCCR 2050



LTS-LCCR 2050



Japan Role

- JETP
- \$20B: \$10b public fund; \$10b private fund
- G7 + Denmark, EU, Norway
- Mostly Concesional Loan
- Japan Private Bank: MUFG



Japan Role

- ETM
- ADB ETM, PLN ETM
- Platform in 6 month
- Announced: Cirebon 1, Tanjung Jati B 1-2, Suryalaya 1-2, Pelabuhan Ratu



Cirebon



Cirebon



Cirebon



Japan Role

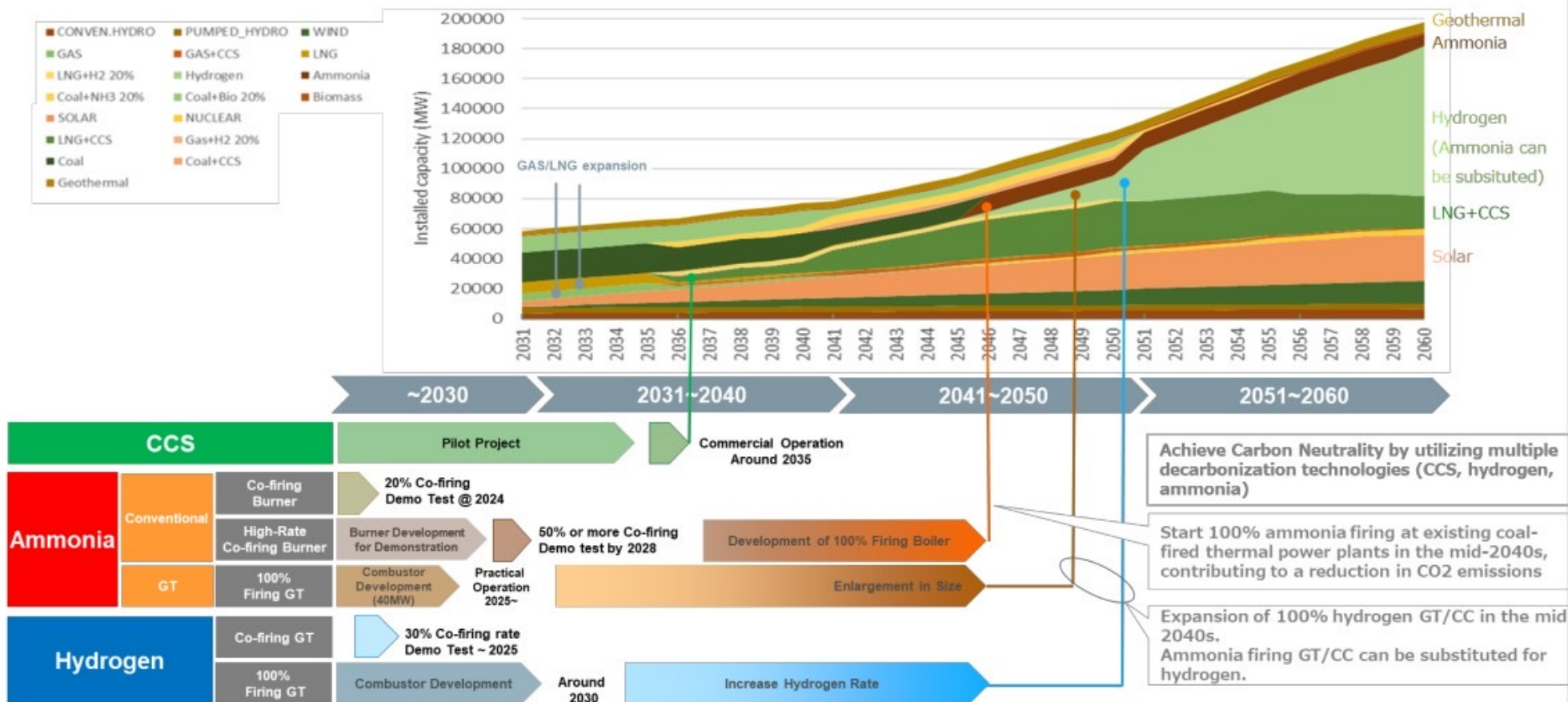
JICA Data Collection Survey on Power Sector in Indonesia for Decarbonization

- JICA PLN ODA Studies Energy Transition Acceleration
- GX: False Solution
- METI: MHI, Mitsubishi Corp, Nippon Koei → co-firing ammonia suryalaya 5-6 coal power plant
- CCUS: Tangguh, Mitsui Corp
- Cofiring Hydrogen: MHI Tanjung priok Gas PP
- Cofiring Ammonig: IHI , Gresik
- Cofiring biomass: MHI Suryalaya 1



Japan Role

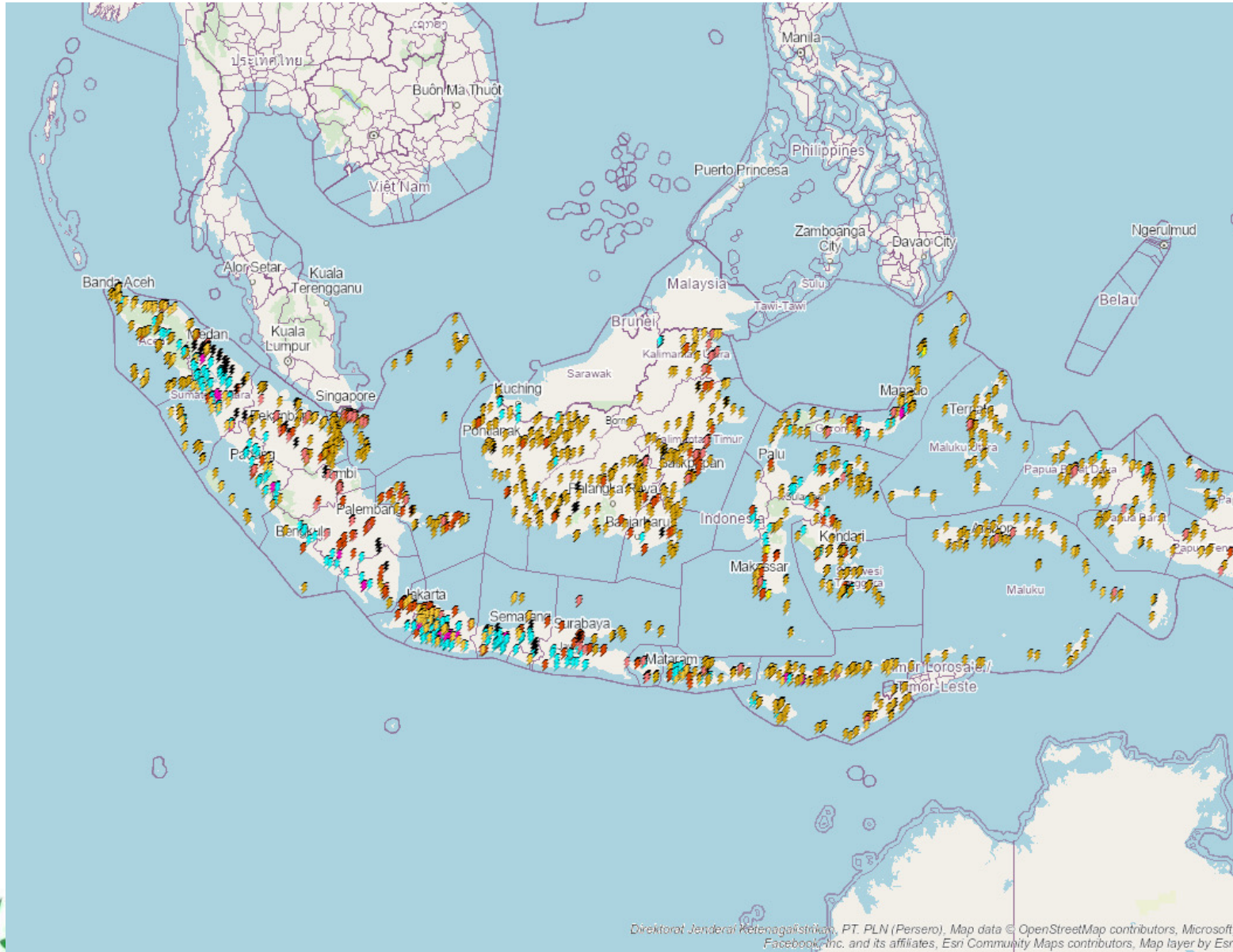
Data Collection Survey on Power Sector in Indonesia for decarbonization
Final Report



(Source: JICA Survey Team)

Figure 10-1 Roadmap for Thermal Decarbonization Technology

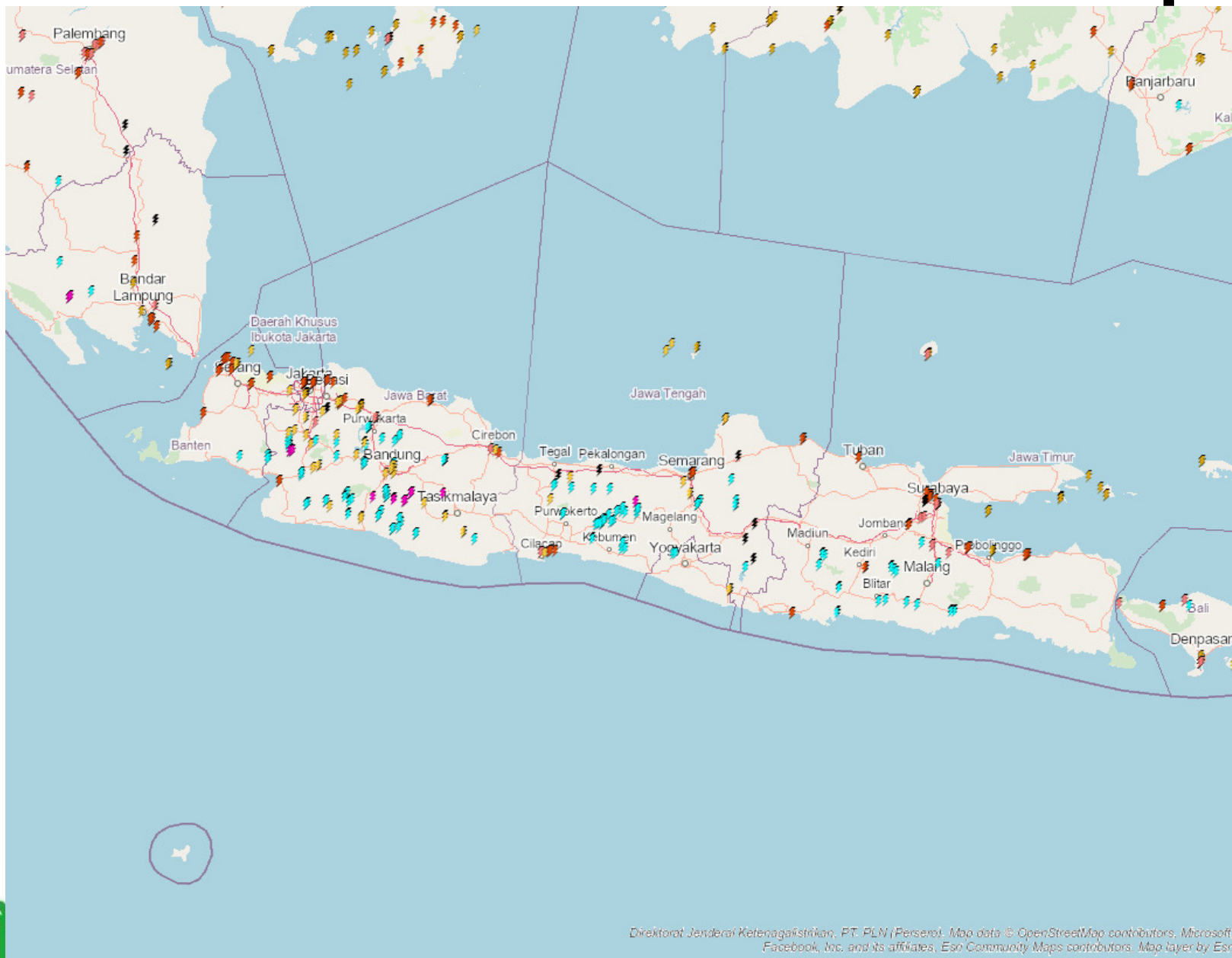
Power Plant Map



Direktorat Jenderal Ketenagalistrikan, PT. PLN (Persero), Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri



Java Power Plant Map



Japan Role



Japan Role



Japan Role

- Coal Mining
- Transition still prolong the coal.
- Coal → ammonia
- Coal → gasification
- cofiring → mean burn coal with other.



DEMAND

- STOP FINANCING COAL
- No False Solution finance
- Fossil Fuel to renewable not fossil to another fossil
- Just Transition for vulnerable
- Transparency and public participation.



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