WORLD RESOURCES INSTITUTE

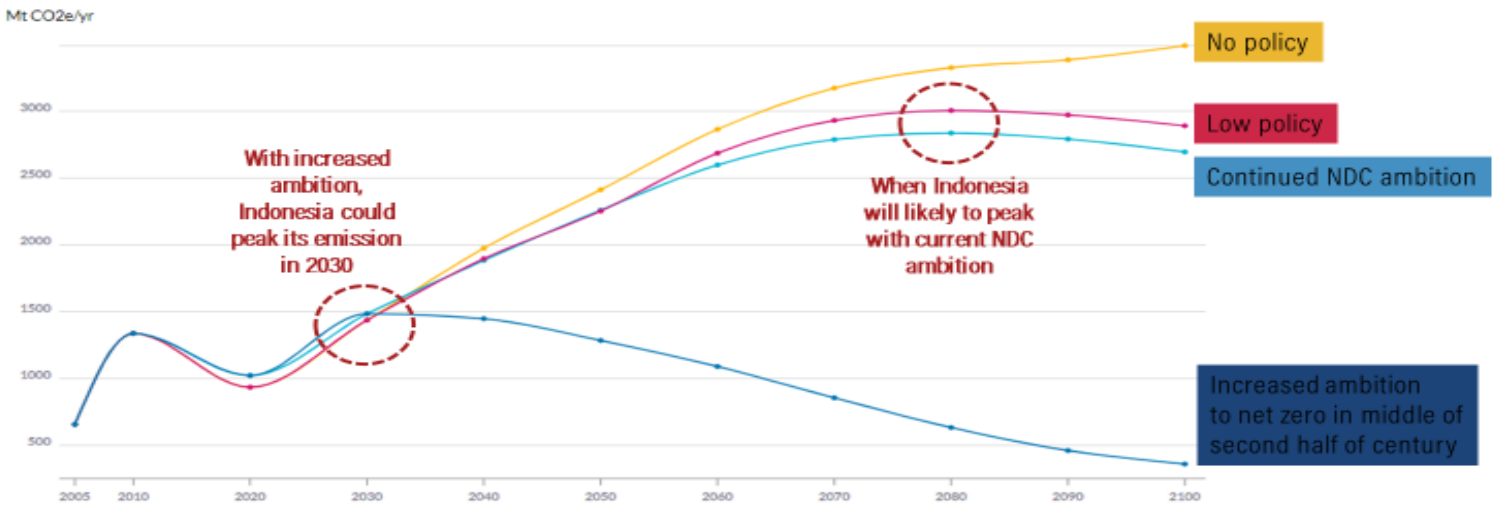
LONG-TERM LOW EMISSION DEVELOPMENT STRATEGIES:LESSON LEARNED FROM ENERGY SECTOR INDONESIA

THE SCIENCE IS VERY CLEAR

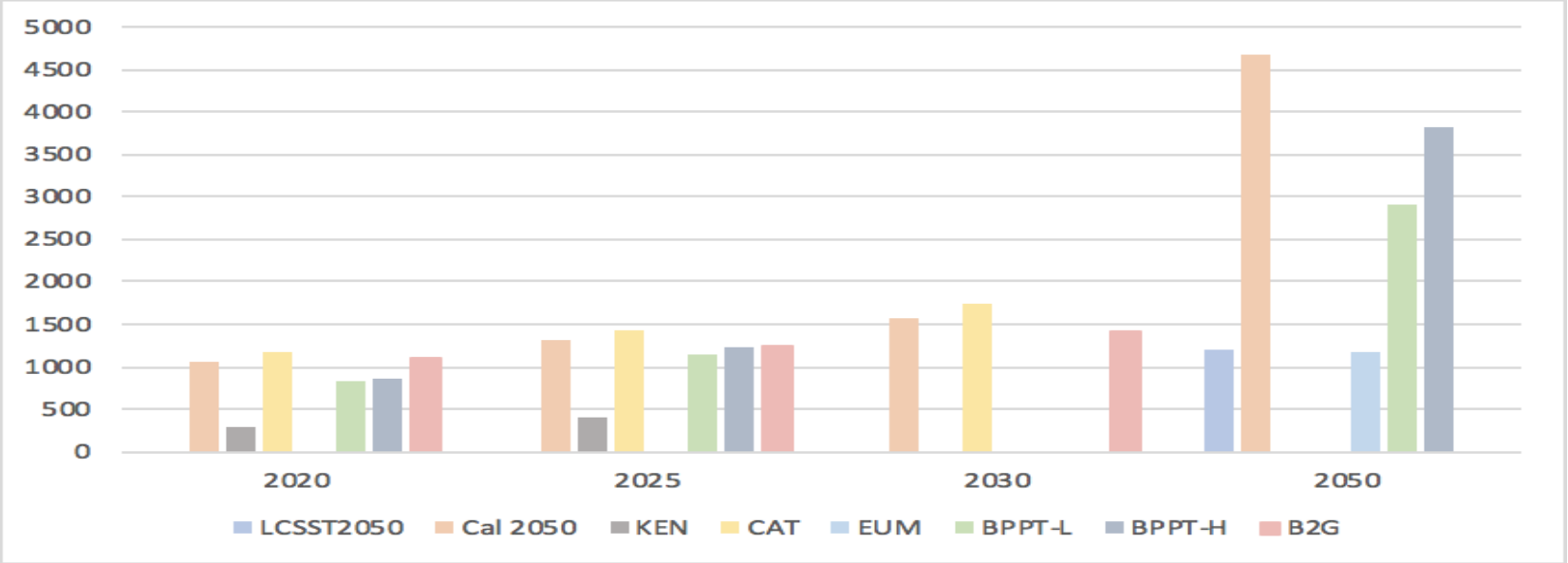
- Meeting 1.5°C will require action on all fronts – across multiple sectors and gases and pollutants that drive climate change
- We cant wait until 2030: Current NDC pathways, even if fully achieved and supplemented by very challenging increases in the scale and ambition of emissions reductions after 2030 will not achieve 1.5°C
- Global net CO_2 emissions must decline by about 45% from 2010 levels by 2030, reaching net zero around 2050

"Limiting warming to 1.5°C is still possible …
but doing so would require unprecedented changes"

Indonesia's Emissions Trajectory under Current and More Ambitious Decarbonization Rates



COMPARISONS BETWEEN SEVEN MODELING SCENARIOS ON INDONESIA'S 2020, 2025, AND 2030 BUSINESS-AS-USUAL EMISSIONS IN THE ENERGY SECTOR

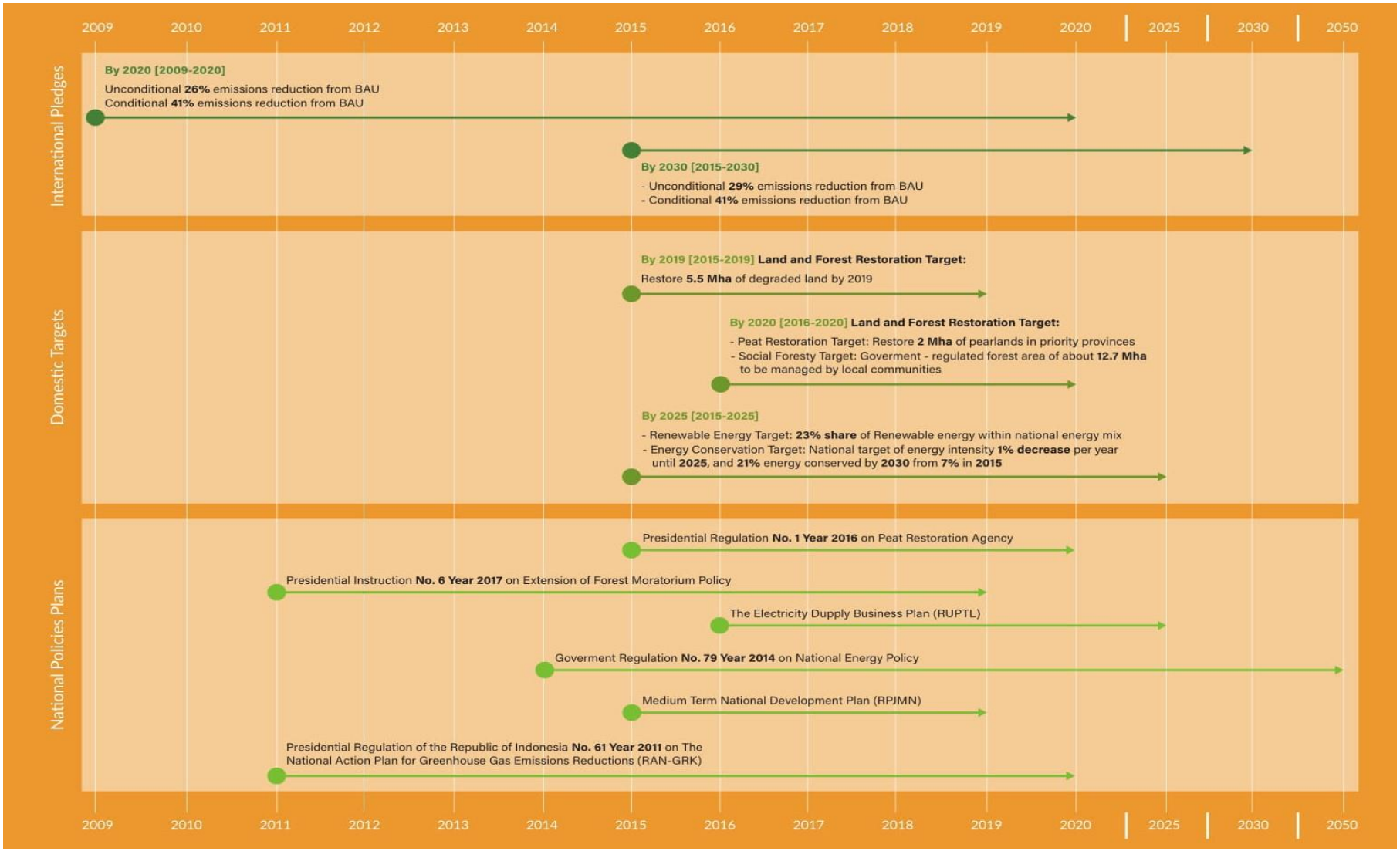


Notes: LCSST2050: Low Carbon Society Scenario Towards 2050—Energy Sector (Dewi et al. 2010); Cal 2050: Indonesia 2050 Pathway Calculator (MEMR 2014a); KEN: Kebijakan Energi Nasional (MEMR 2014b);
CAT: Climate Action Tracker (2014); EUM: Energy Use Model (Dewi et al. 2015); and BPPT: Indonesia Energy Outlook 2016 (Badan Pengkajian dan Penerapan Teknologi 2016) (BPPT-L indicates "low" scenario and BPPT-H indicates "high" scenario); B2G: *Brown to Green* report (Climate Transparency 2018).

Sources: Dewi et al. 2010; MEMR 2014a; MEMR 2014b; Climate Action Tracker 2014; Dewi et al. 2015; Badan Pengkajian dan Penerapan Teknologi 2016; Climate Transparency 2017.

Note: Continued plants (red); terminated plants (blue).
Source: Syahni (2016).

1. Decomissioning, replacing or abandoning some or all brown energy sources
2. Energy supply vs Energy reliability
3. Pricing transparency, monopoly in electricity distribution
4. Removal of *perverse incentives* such as subsidy



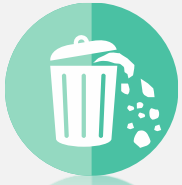
Risks from short term policies, beware of lock-in policies

LESSON FROM INDONESIA: KEY POLICIES OF INDONESIA'S LOW CARBON DEVELOPMENT INITIATIVE

Advancing a transition to renewable sources of energy and away from coal

A full enforcement of forests, palm oil, mining, and peat land moratoria

Increasing land productivity



Increasing energy efficiency

Abiding to committed targets in water, fisheries, and biodiversity

https://www.bappenas.go.id/id/berita-dan-siaran-pers/pembangunan-rendah-karbon-pergeseranparadigma-menuju-ekonomi-hijau-di-indonesia/

LONG-TERM STRATEGIES PROJECT

Developed by World Resources Institute and United Nations Development Programme, working closely with UN Climate Change

The project contributes to the 2050 Pathways Platform and is undertaken in collaboration with the NDC Partnership

www.longtermstrategies.org