



**ASIA CLEAN ENERGY FORUM 2023**

# Navigating toward a Carbon-Neutral Future through Clean Energy Solutions

13–16 June





ASIA CLEAN ENERGY FORUM 2023

Deep Dive Workshop

No Transmission – No Transition! 21st Century T&D Systems for Net Zero

15 June








## *ADB's Climate Financing on HTLS – Bangladesh and Nepal*

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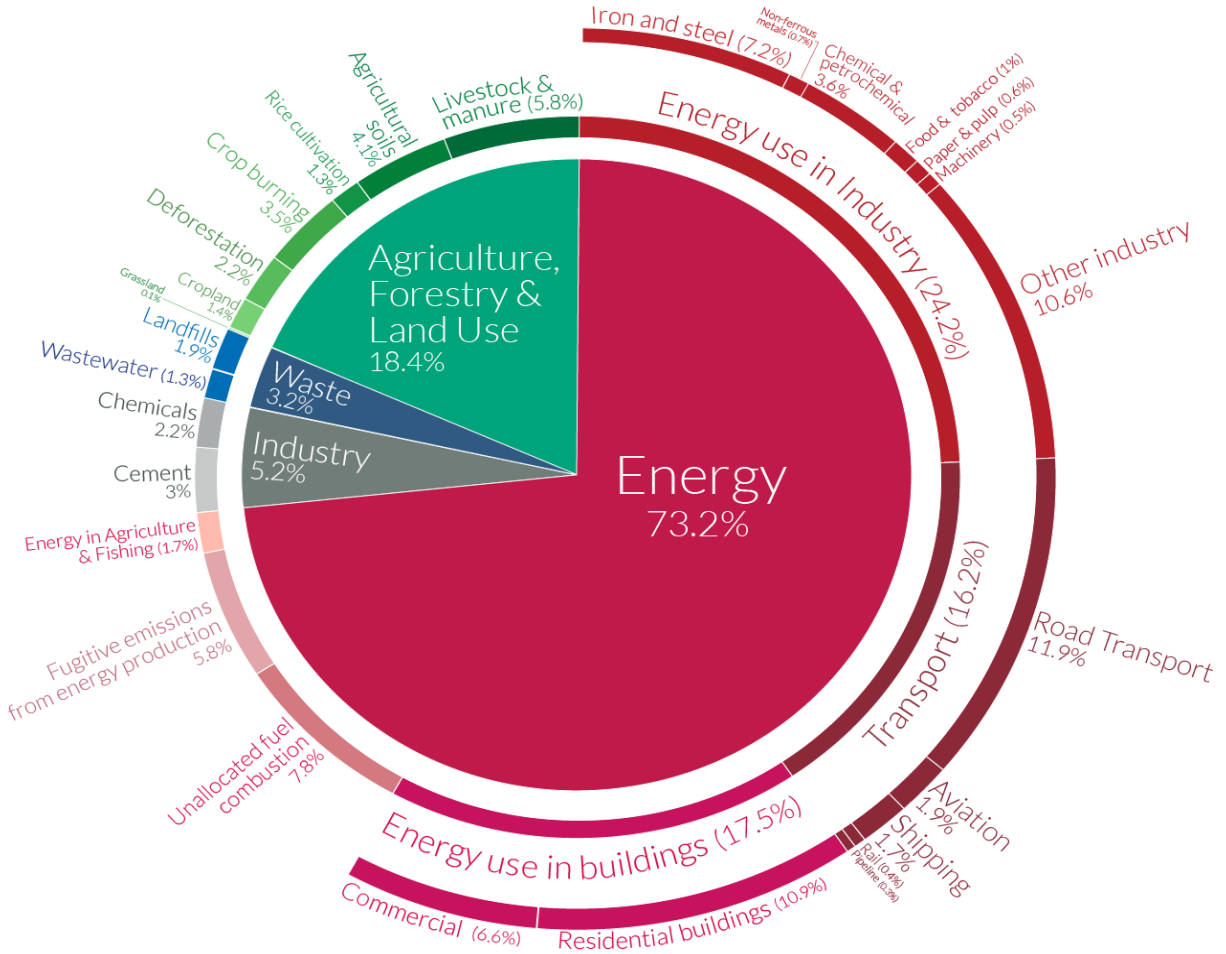
-  Energy sector's contribution to the global GHG emission
-  ADB's climate financing in energy sector
-  ADB's first finance on HTLS projects in Nepal and Bangladesh
-  Value addition from ADB
-  Video of Boosting Transmission Grid Efficiency with Advanced Conductors and Drones

# Energy Sector- Major Contributor of Global GHG Emissions

## Global greenhouse gas emissions by sector

This is shown for the year 2016 – global greenhouse gas emissions were 49.4 billion tonnes CO<sub>2</sub>eq.

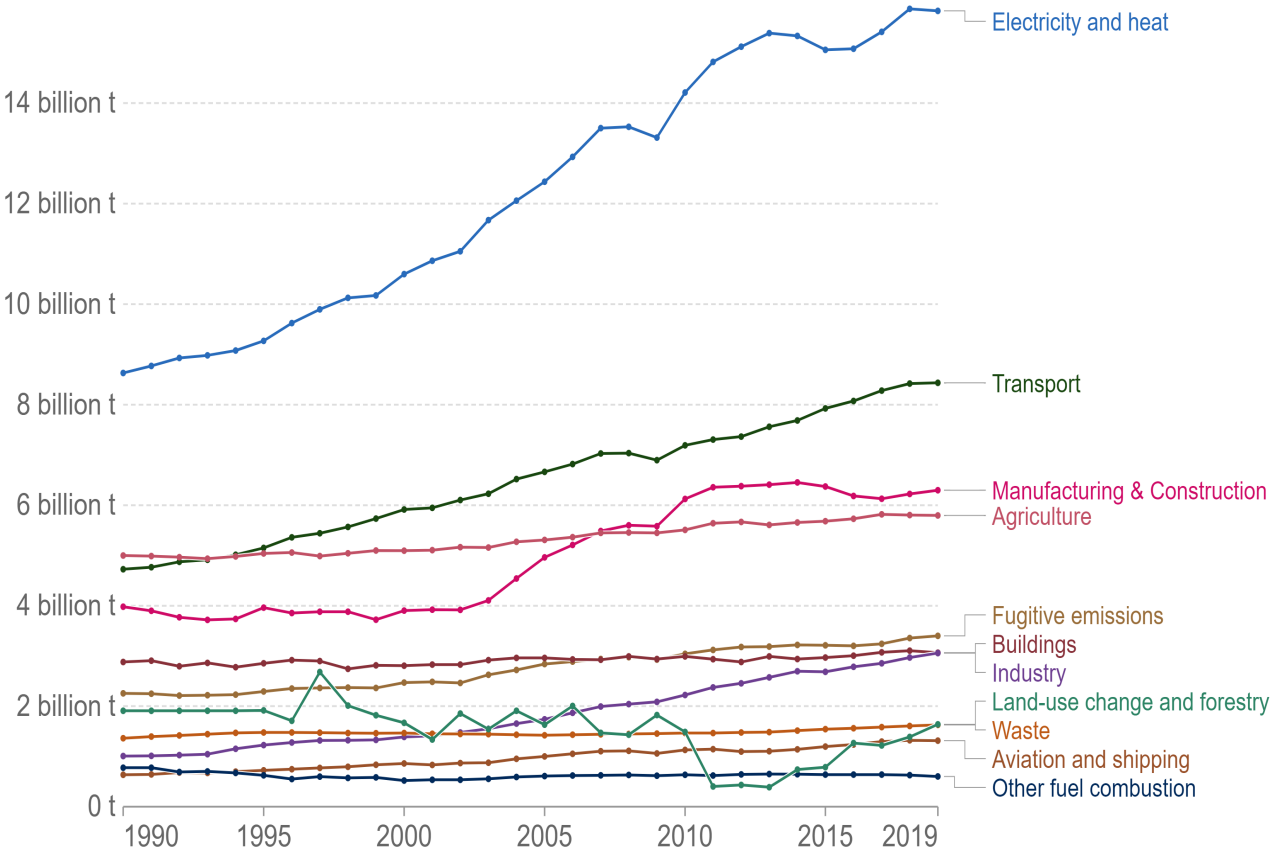
Our World  
in Data



## Greenhouse gas emissions by sector, World

Our World  
in Data

Emissions are measured in carbon dioxide equivalents (CO<sub>2</sub>eq). This means non-CO<sub>2</sub> gases are weighted by the amount of warming they cause over a 100-year timescale.



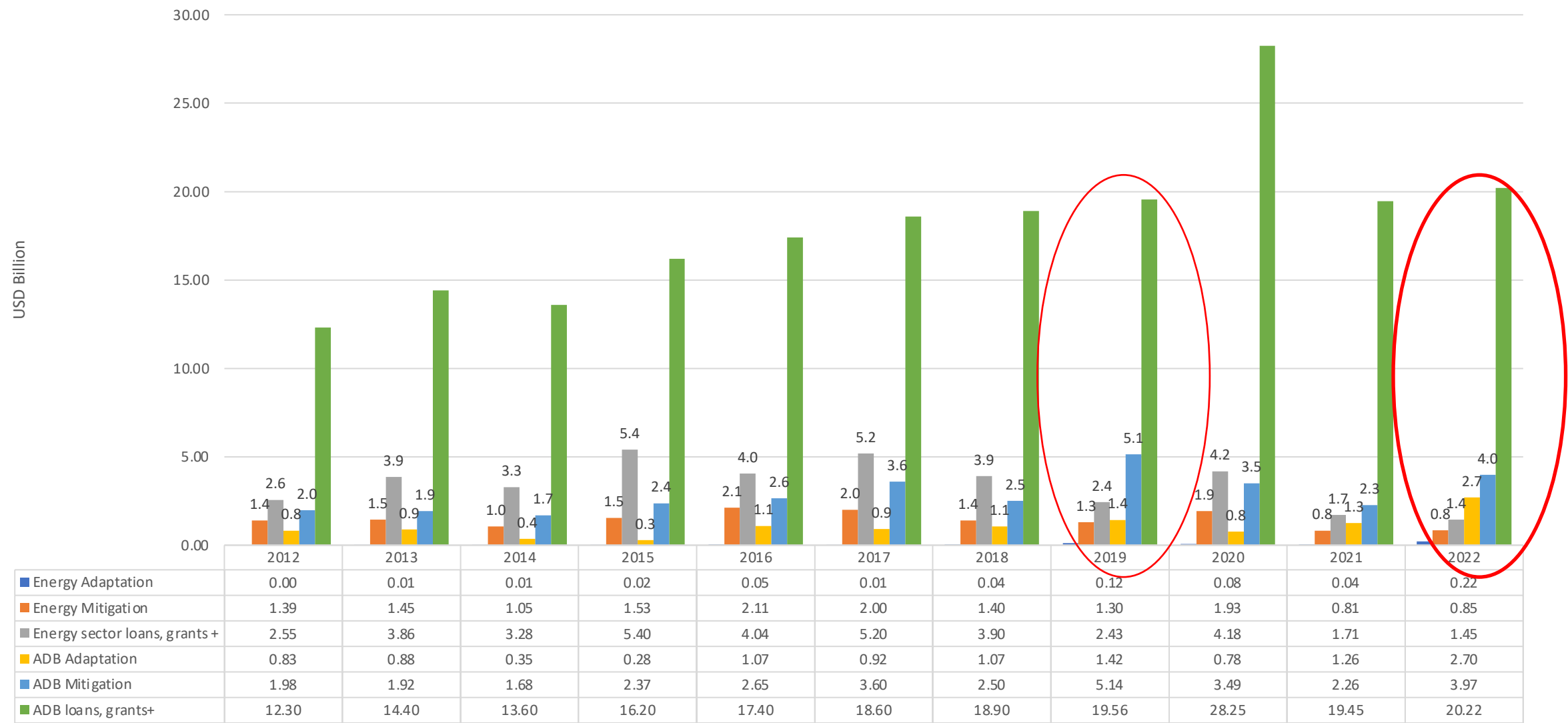
Source: Our World in Data based on Climate Analysis Indicators Tool (CAIT). OurWorldInData.org/co2-and-greenhouse-gas-emissions • CC BY

OurWorldinData.org – Research and data to make progress against the world's largest problems.  
Source: Climate Watch, the World Resources Institute (2020).  
Licensed under CC-BY by the author Hannah Ritchie (2020).

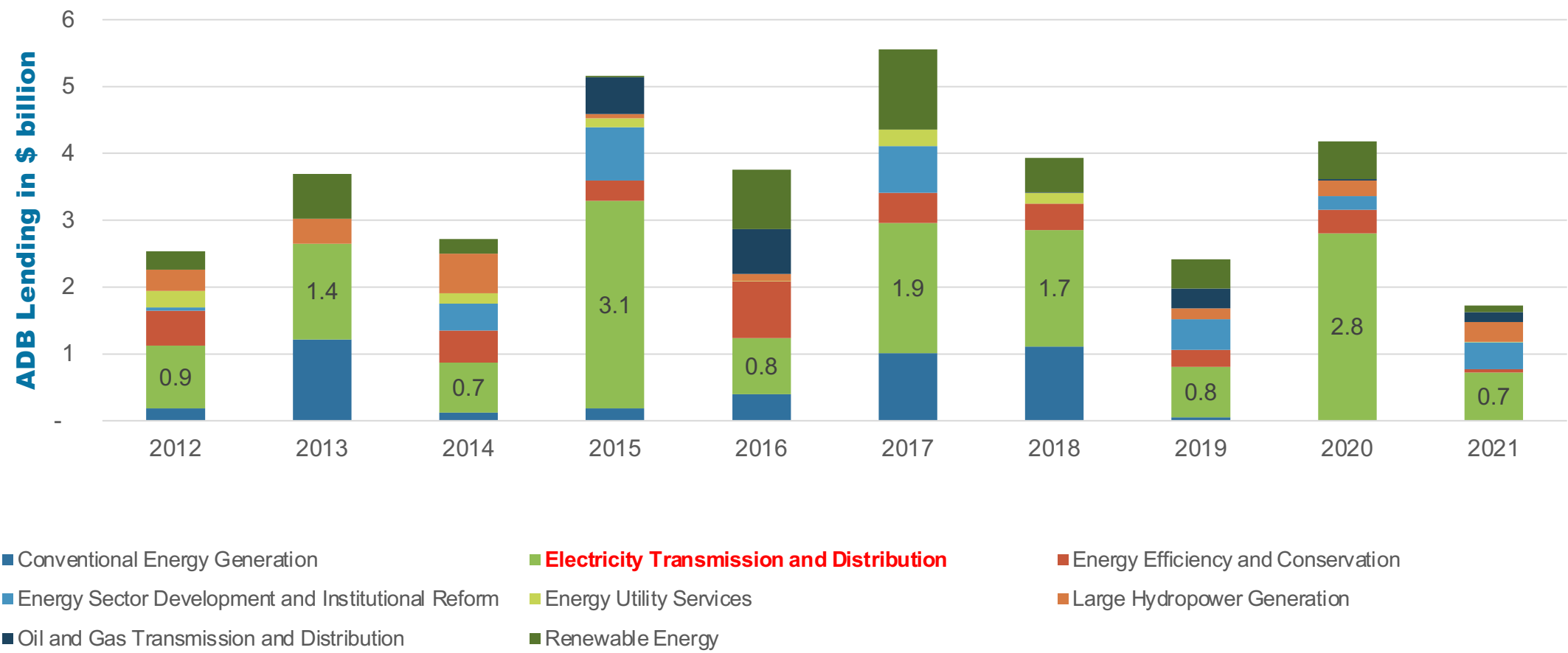
# Key Energy Opportunities in Asia and the Pacific

Energy Landscape	Global Commitments	ADB's Commitment
<p>Profound changes in Asia and the Pacific:</p> <ul style="list-style-type: none"> <li><b>Falling cost</b> of renewable energy vs. conventional energy</li> <li>Emerging new and innovative <b>low-carbon energy technologies</b></li> </ul>	<p>Global commitments to universal access and climate action:</p> <ul style="list-style-type: none"> <li>Sustainable Development Goal 7: <b>Universal Energy Access by 2030</b></li> <li>Paris Agreement: <b>Nationally Determined Contributions</b> (NDCs)</li> </ul>	<p>ADB is the Asia and the Pacific Climate Bank:</p> <ul style="list-style-type: none"> <li><b>\$100 billion of cumulative climate finance from 2019 to 2030</b> from our own resources</li> <li>At least <b>75% of our operations support climate action</b> for the period 2019 to 2030</li> </ul>
<p><b>ADB's Energy Policy 2021- supporting Low-Carbon Transition in Asia and the Pacific</b></p> <ul style="list-style-type: none"> <li>Prioritizes energy efficiency, renewable energy, energy storage, decarbonization and electricity transmission and distribution expansion and upgrade</li> <li>Promotes use of smart, digital, innovative and best available technologies</li> </ul>		

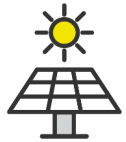
# ADB Climate Financing- Energy Sector Lending- Energy Sector Climate Financing (2012-2022)



# ADB Energy Sector Lending by Subsector (2012-2021)



## Eligible mitigation activities in T&D systems



Installing RE dedicated T & D System



Installing smart grid system



Installing advanced metering infrastructure (AMI)



Installing flexible AC transmission system (FACTS) devices as static VAR compensator, capacitor banks

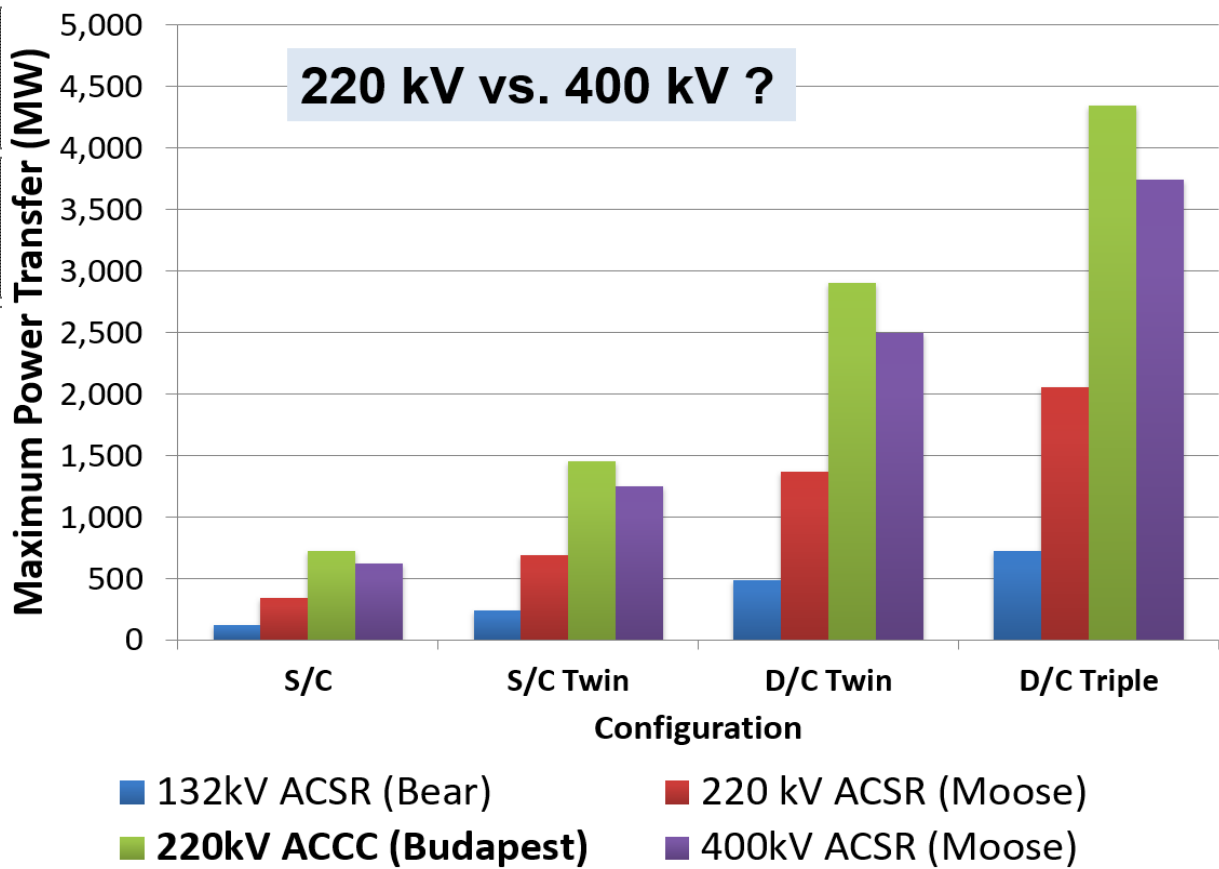
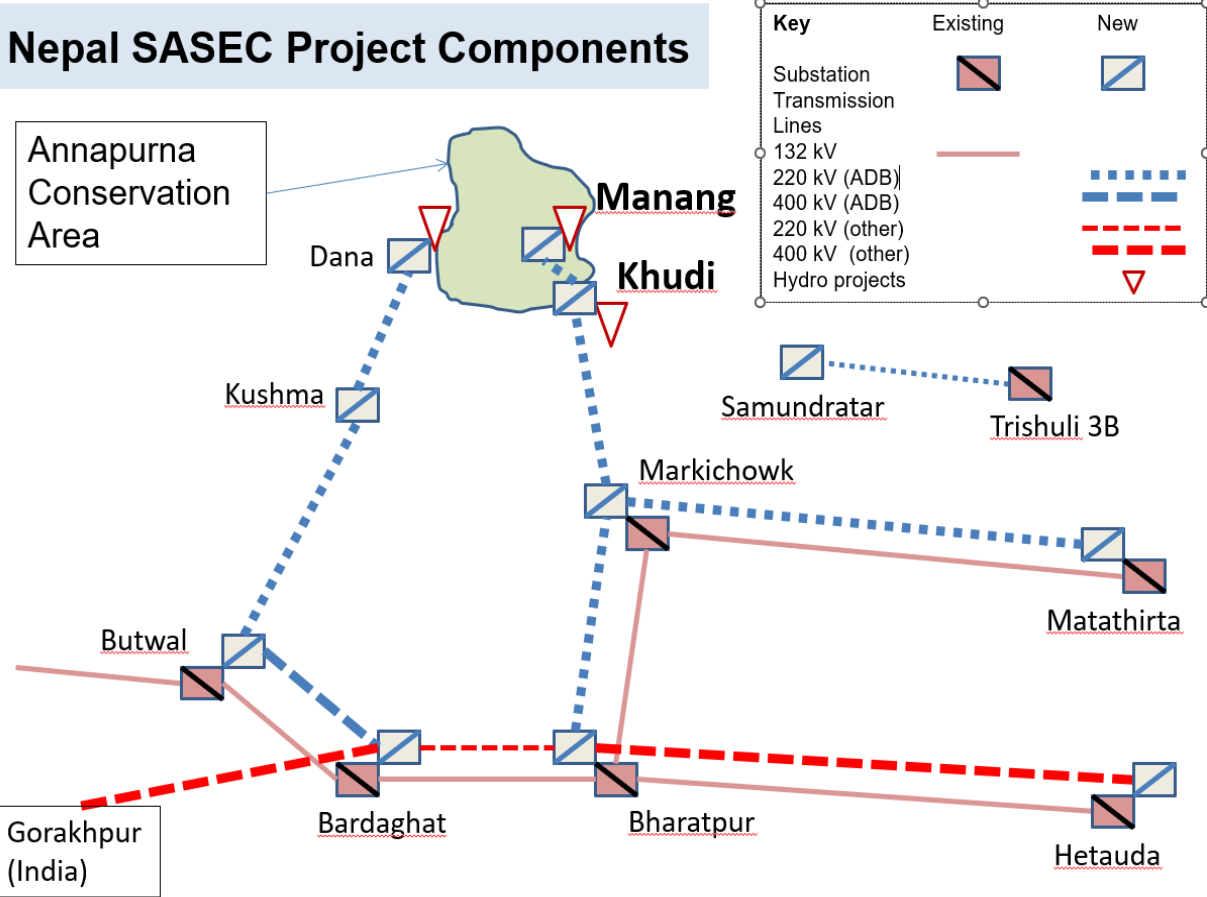


Installing high voltage direct current (HVDC), and HTLS systems



# ADB’s supports on HTLS systems in Nepal and Bangladesh

## Loan 3139 (SF) / Grant 0397/0398 - NEP: South Asia Subregional Economic Cooperation Power System Expansion Project



# ADB's supports on HTLS systems in Nepal and Bangladesh

## Loan 3350-Bangladesh: Power System Expansion and Efficiency Improvement Investment Program - Tranche 3

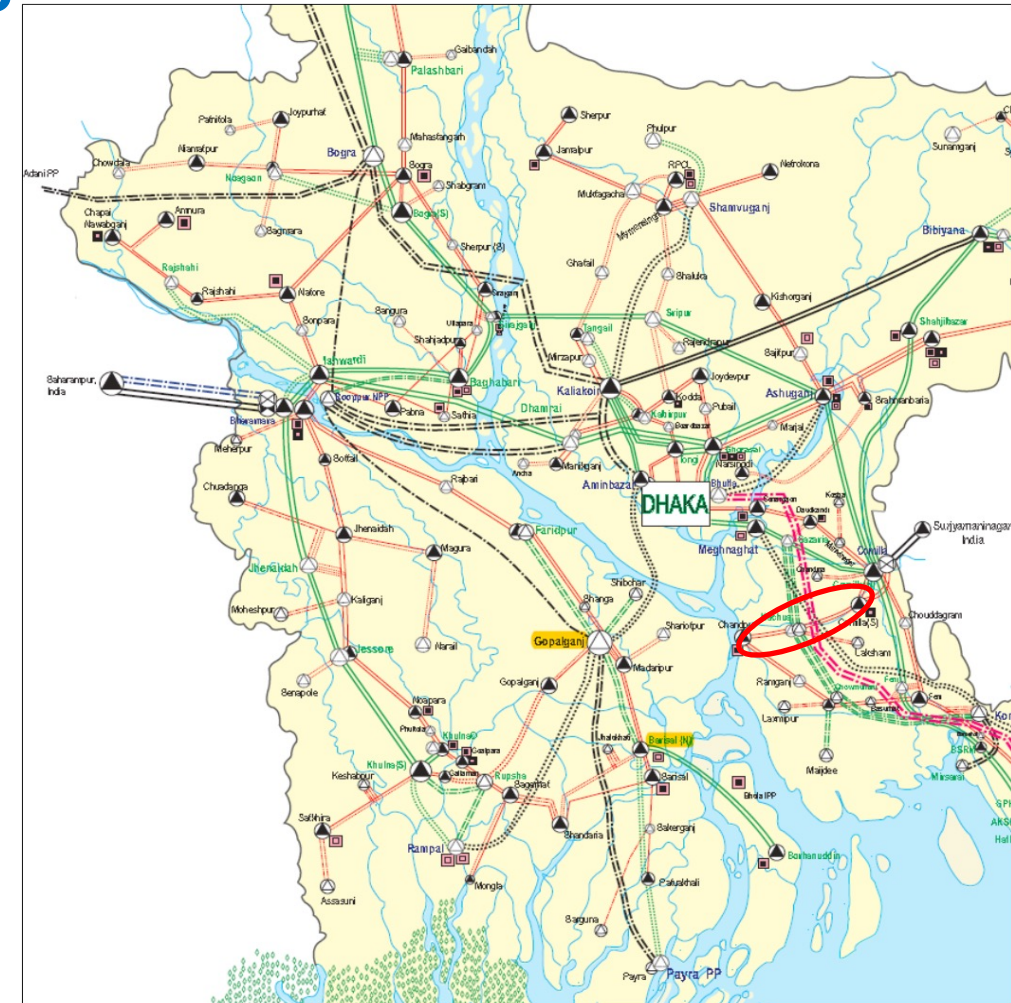
Approved in 2015.

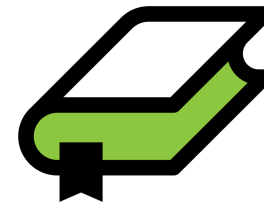
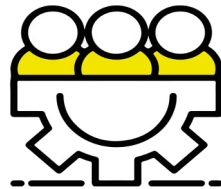
HTLS Component

Loan 3350:

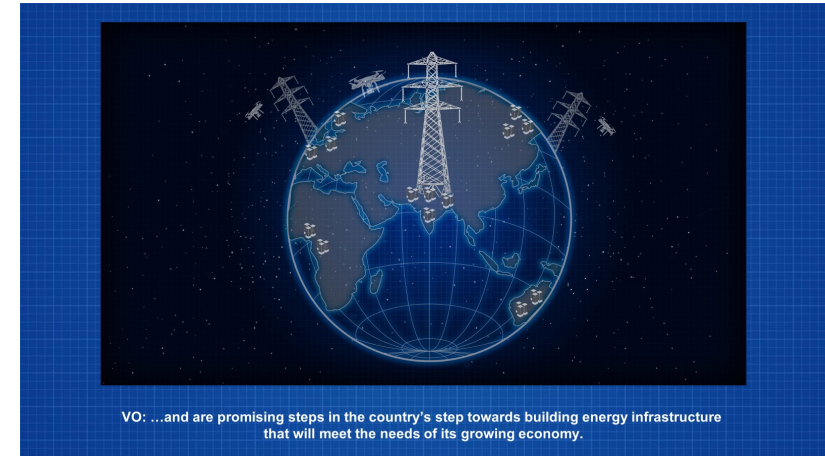
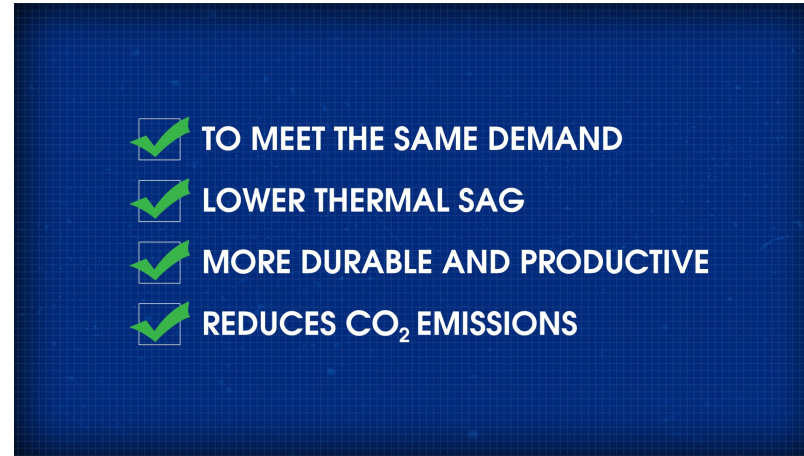
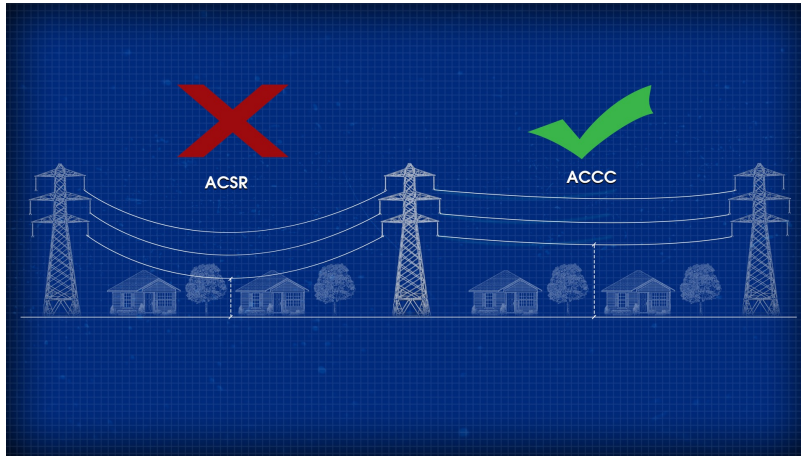
65km

Reconducting 132 kV double circuits transmission line between Comilla (South)-Chandpur substations





# Video of Boosting Transmission Grid Efficiency with Advanced Conductors and Drones



Bangladesh: Dhaka and Western Zone Transmission Grid Expansion Project  
<https://youtu.be/asf912mcCcA>





THANK YOU!

