



Ministry of Industry and Trade



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On behalf of:



Federal Ministry
for the Environment, Nature Conservation
and Nuclear Safety

of the Federal Republic of Germany

The new feed-in-tariff for biomass energy in Viet Nam – insights for developers, technology providers, and investors

WEBINAR

Hanoi, 8 July 2020





Ministry of Industry and Trade



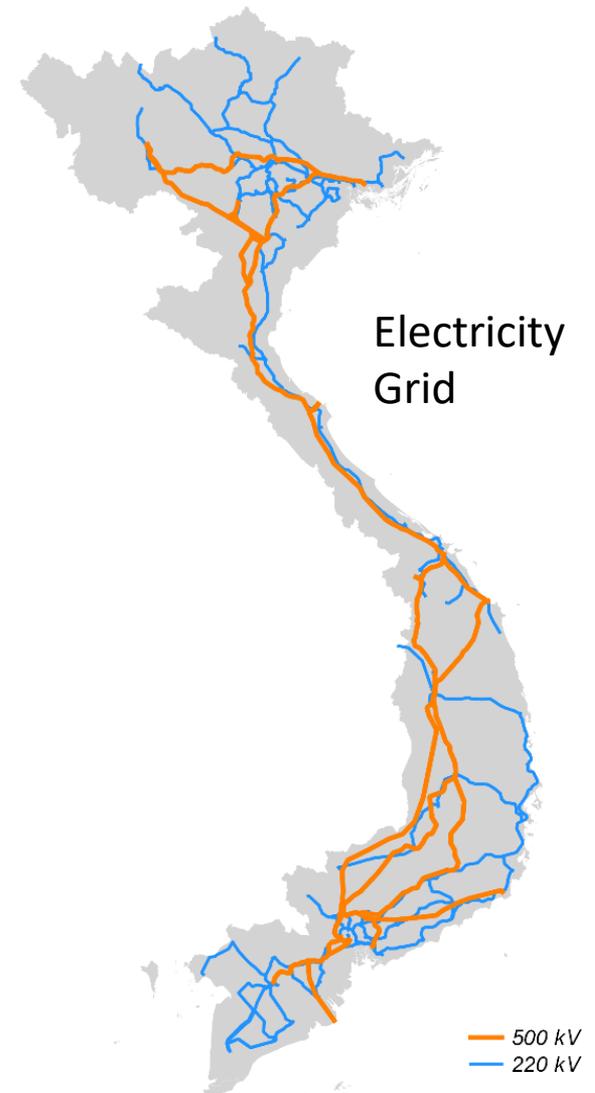
Government of Vietnam's strategy to support the development of grid- connected bioenergy power

Le Cong Doanh
Official
EREA/MOIT

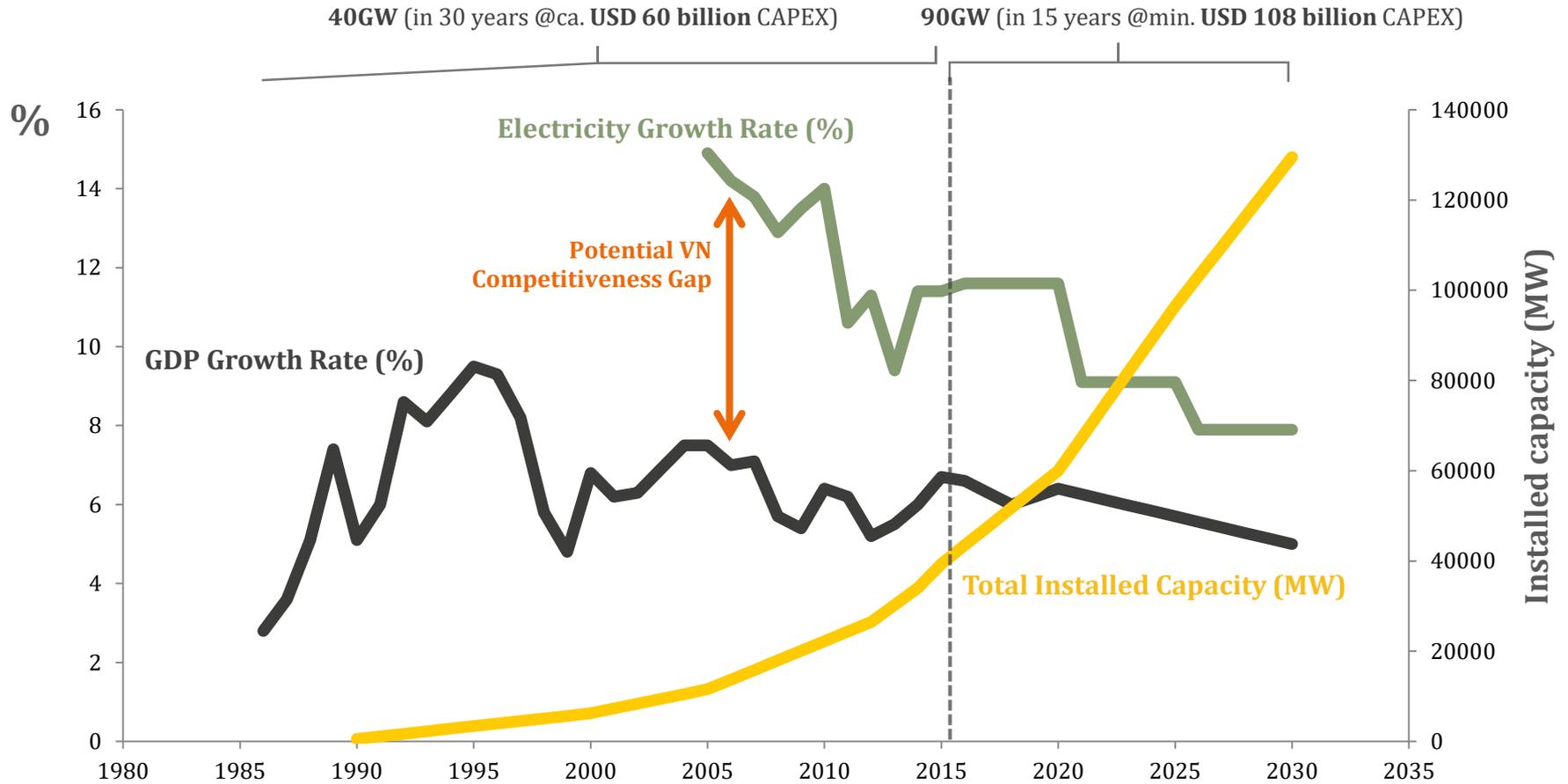


Vietnam Overview (economic and energy indicators – 2019)

Official name	Socialist Republic of Viet Nam
Population in 2019	96.2 million Urban: 30% Rural: 70%
GDP per capita (USD)	1990: 113 2000: 392 2010: 1.333 2019: 2.715
Number of households	26.9 million
Primary energy consumption per capita	680 kgOE/person
Electricity consumption per capita	2.010 kWh/person
Average electricity price	US cents 8.1/kWh (1,8760 VND/kWh)

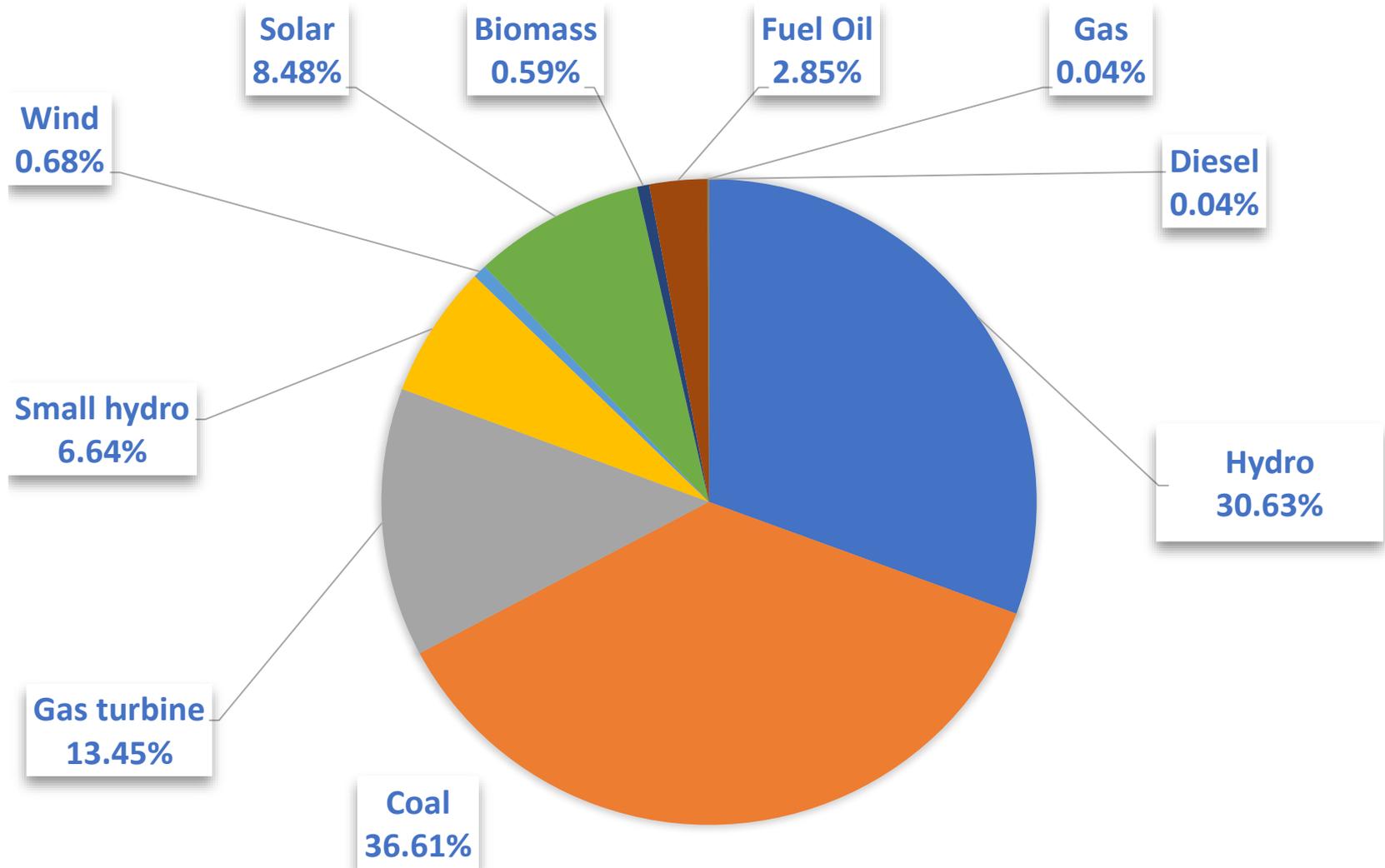


Viet Nam Energy Sector Challenge in a Nutshell

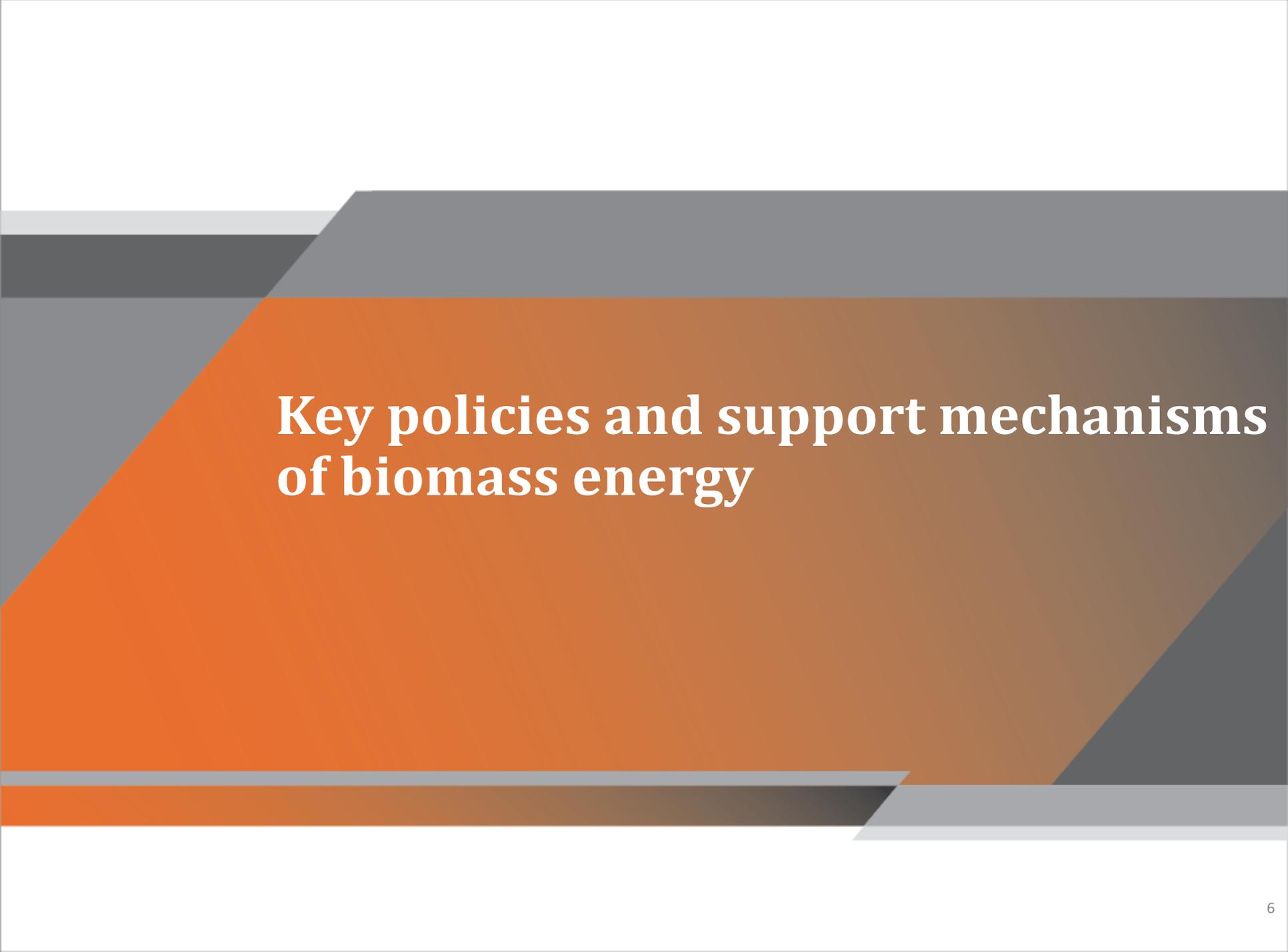


Sources: Electricity Growth Rate: GDE (2015), IE (2015)
 GDP Growth Rate: World Bank (2015), tradingeconomics.com (2015)
 Total Installed Capacity: IE (2013), EVN (2014), GDE (2016)

Installed capacity by types of plants by 5/2020



Source: EVN NLDC 2020.



Key policies and support mechanisms of biomass energy

**The Viet Nam
Renewable
Energy
Development
Strategy
(VREDS) up to
2030 with a
vision to 2050**

- **RE production targets: bioenergy (8.1% in 2050).**

National Power Development Plan VII (Revised PDP VII)

- Next to capacity targets specified for wind and solar, the share of electricity **produced from biomass sources** is expected to reach approx. 1% in 2020, **1.2% in 2025 and 2.1% in 2030.**
- *The next PDP, PDP 8, is currently being developed for the period of 2021-2030 with the vision to 2045.*

Resolution 55- NQ/TW by the Politburo

On Orientations of the Viet Nam's National Energy Development Strategy to 2030 and outlook to 2045.

Utilizing urban waste, solid waste and biomass.

New Feed-In-Tariff for biomass power

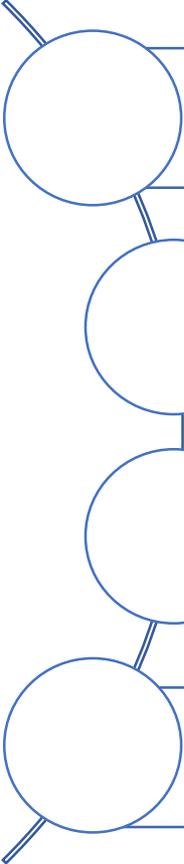
Decision No. 08/2020/QD-TTg by the Prime Minister

- FiT of **7.03 US cents/kWh** applied for **co-generation heat power** project
- While the FiT of **8.47 US cents/kWh** applied for **non-CHP** projects.
- Circular 16/2020/TT-BCT dated **7th July 2020** on the revision of Circular 44/2015/TT-BCT. Highlights: SPPA, transitional provisions.

Biogas power

- Under the support of German Government, EREA is working with GIZ on the mechanism to support biogas power, i.e. the study of FIT for biogas in Vietnam.
- The expected first result will be available in the end of 2020.
- There will be consultant workshops to listen and consider opinions from stakeholders.

Further support from the Government



Electricity of Vietnam (EVN) has to buy all the generated electricity from renewable energy plants.

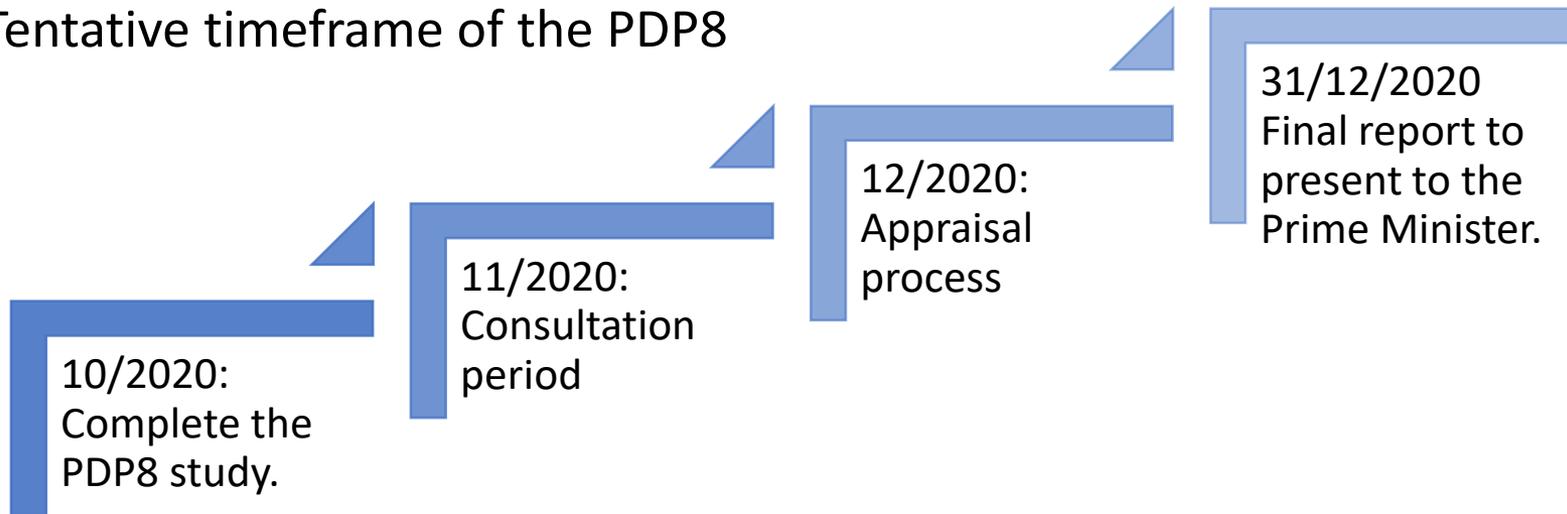
Timeline of the power purchase agreement is 20 years.

Electricity price is adjustable based on exchange rate of USD/VND.

Land benefits: exemption/reduction on the fee for land use, renting.

Strategies for the future

- Continue to support investors, developers of biomass and biogas power plants.
- Having research to include bioenergy into the power development plan 8 in order to create a clear timeframe and roadmap for investors and developers.
- Tentative timeframe of the PDP8





Thanks for
your attention!

Le Cong Doanh (Mr.)
Official
Electricity and Renewable Energy Authority
Ministry of Industry and Trade



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The role of bioenergy in the sustainable energy transition and climate protection in Vietnam

Tobias Cossen
MOIT/GIZ Energy Support Programme

Context

2009

Start of the German development cooperation with a focus on wind energy



July 2013

(G2G consultations)

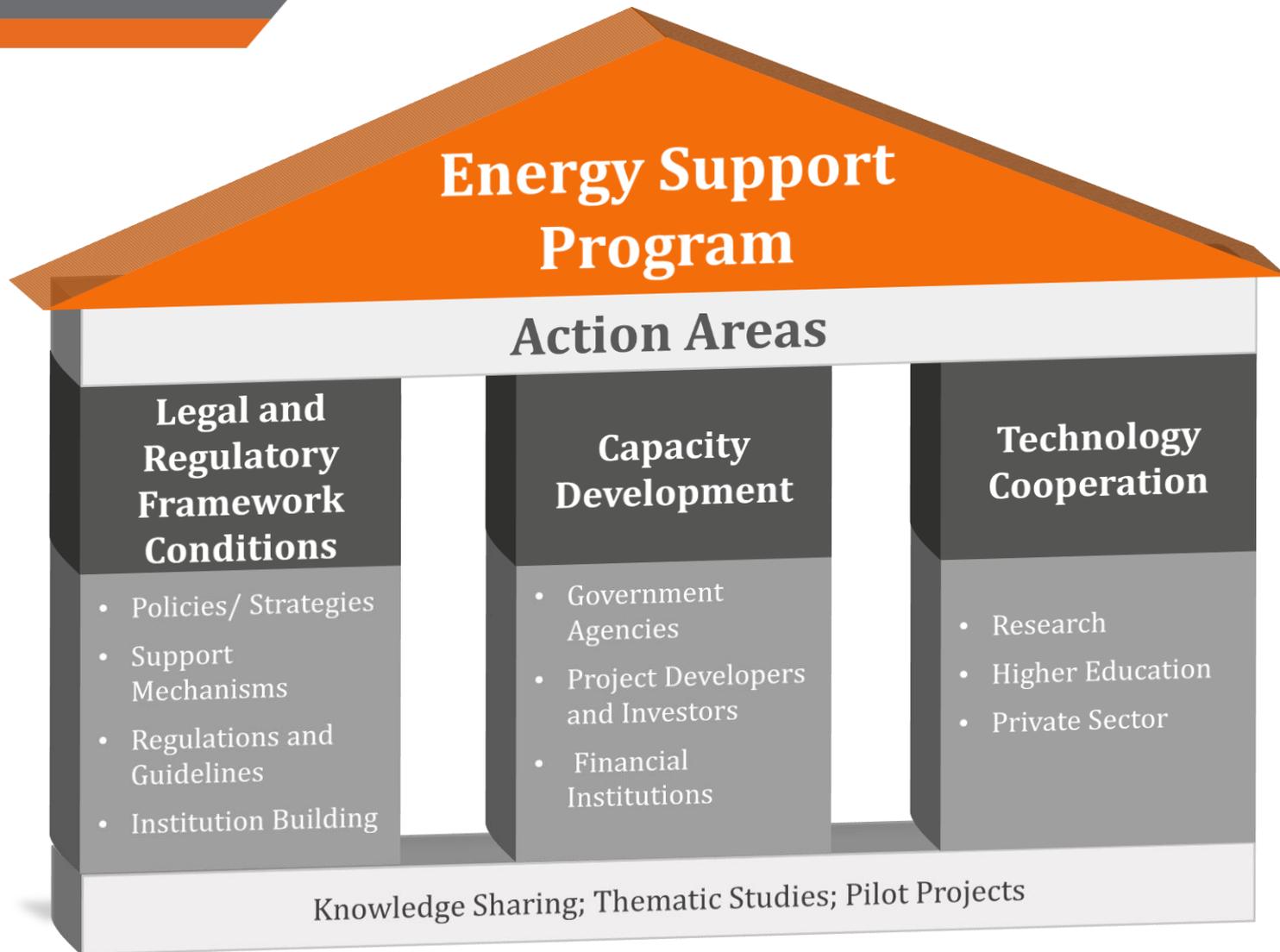
Energy becomes one of three priority areas of Vietnamese-German cooperation

Now

Mutually agreed strategic areas of cooperation:
Renewable Energy and Energy Efficiency



Approach of the Energy Support Programme (ESP)



ESP Cooperation Partners

Co- and parallel financing



Key national partners

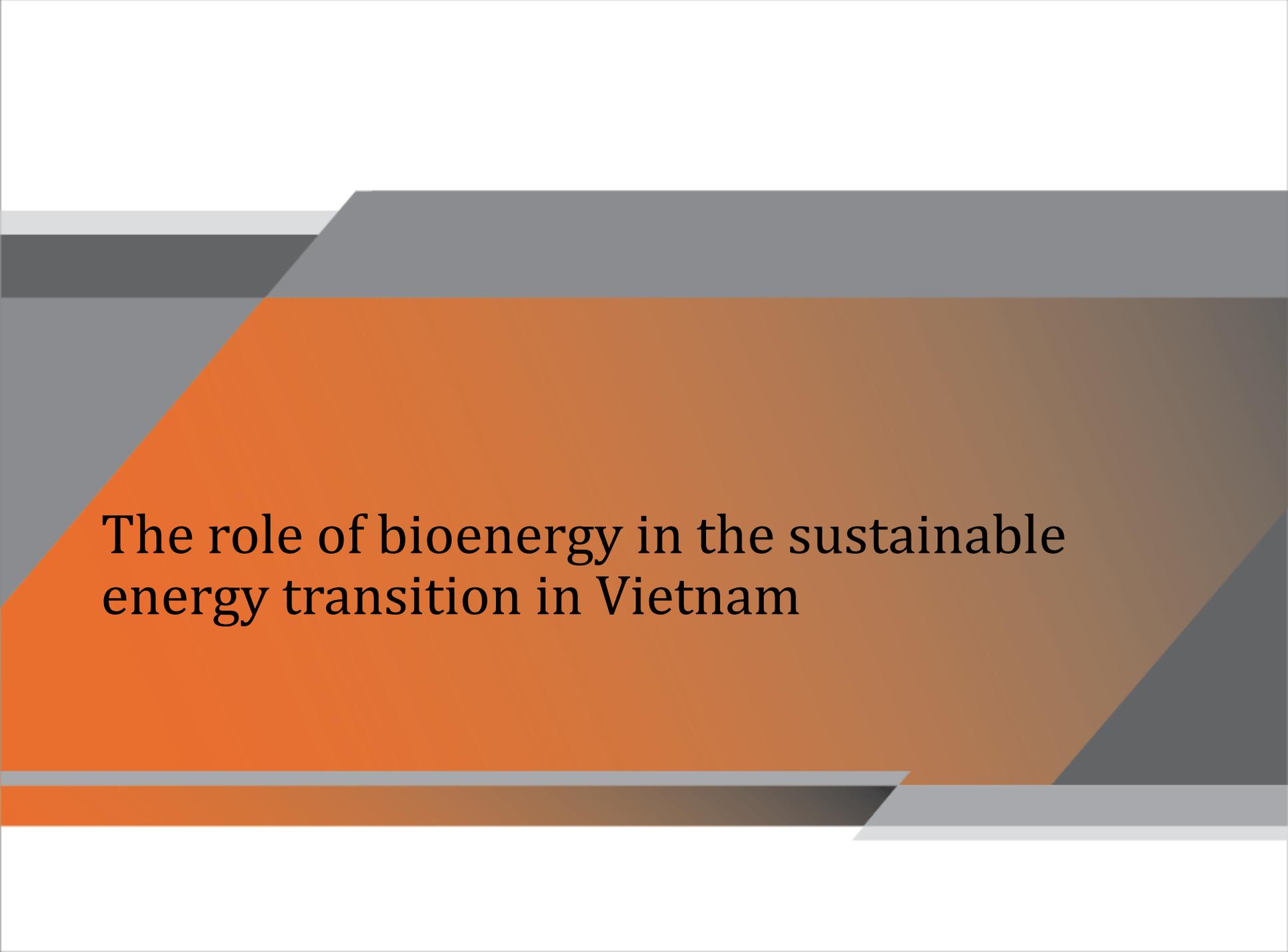
- **Ministry of Industry and Trade**
 - Electricity & Renewable Energy Authority (ERA)
 - Department of Energy Efficiency and Sustainable Development (DEESD)
 - Electricity Regulatory Authority of Viet Nam (ERAV)
 - Viet Nam Electricity (EVN)
- **Vietnam Wind Power & Sugar Associations**
- **Research & Academic Institutions**
- **VIET, GreenID, etc.**

Key international partners



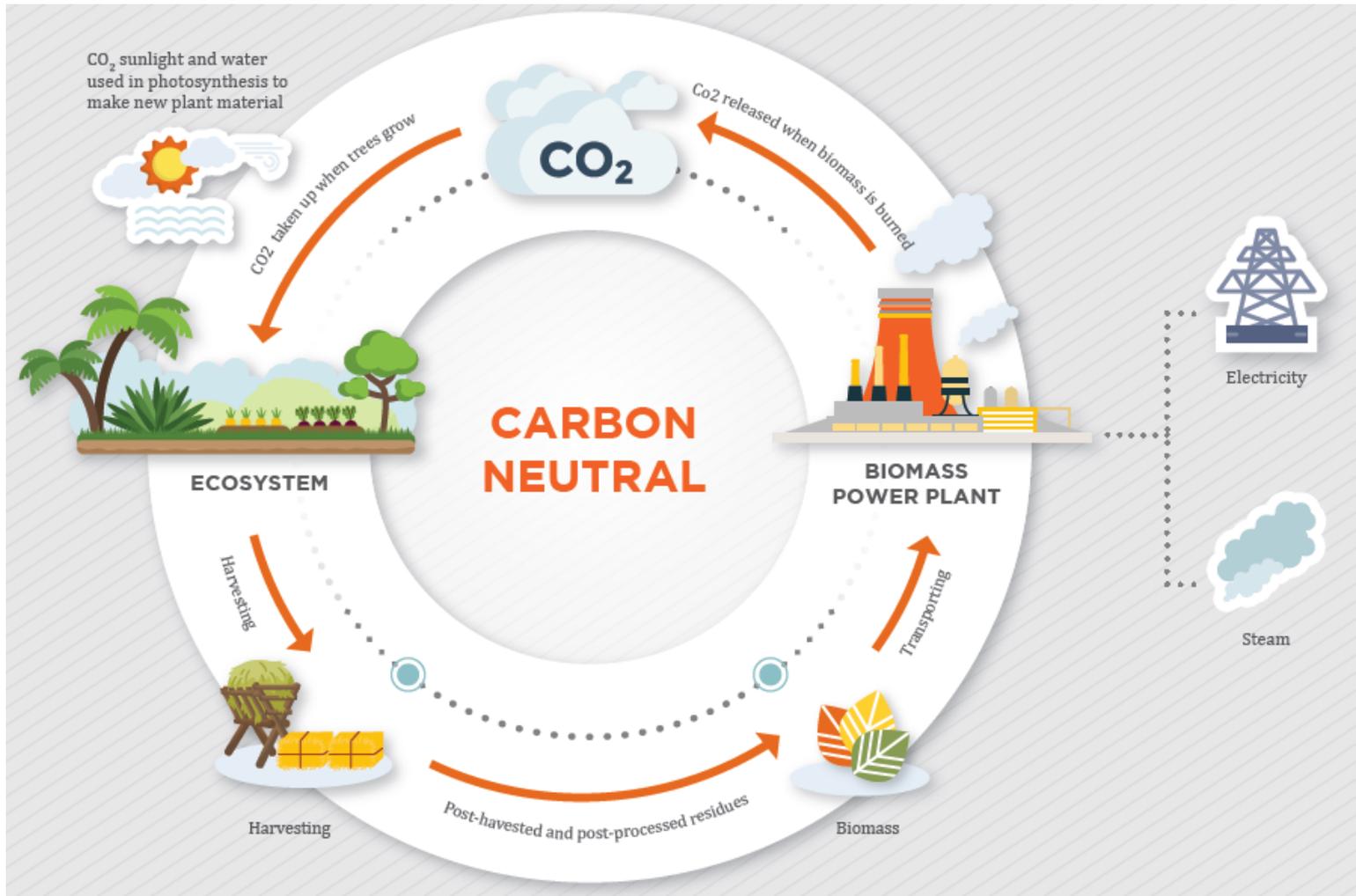
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The role of bioenergy in the sustainable energy transition in Vietnam

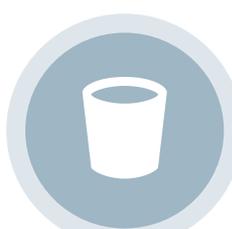
The role of bioenergy in the sustainable carbon cycle



Bioenergy potential in Vietnam

Sector	Type of resource	Million ton	Theoretical electricity potential
Agriculture-Forestry	Woody biomass	19.02	77.42 (GWh)
	Livestock waste	12,000 medium and large scale farms	On-going research
Agro-industry	Sugar bagasse	5.07	10.9 (GWh)
	Rice husk	7.65	26.67 (GWh)
	Rice straw	26.98	87.87 (GWh)
Waste	Organic matters	On-going research	

Renewable energy – incentive support mechanism

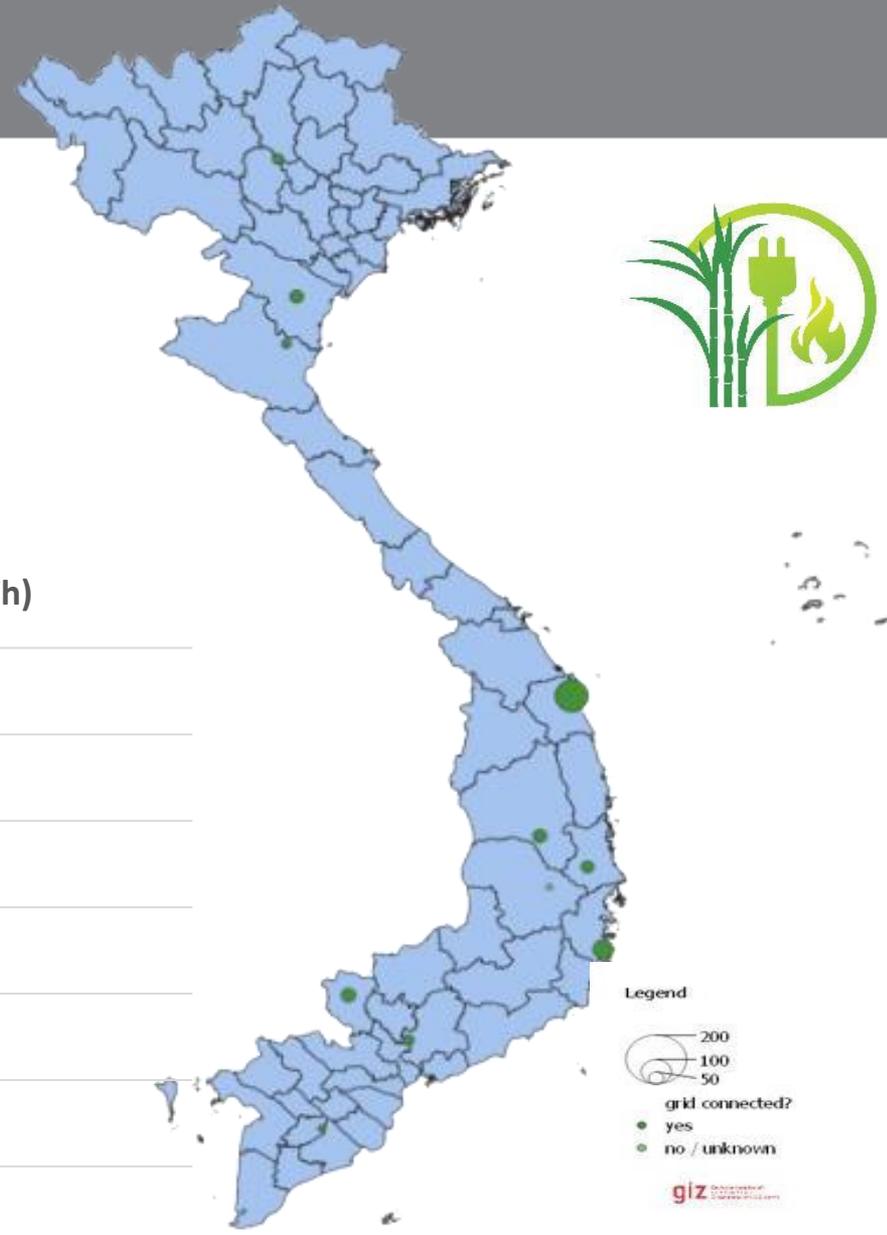
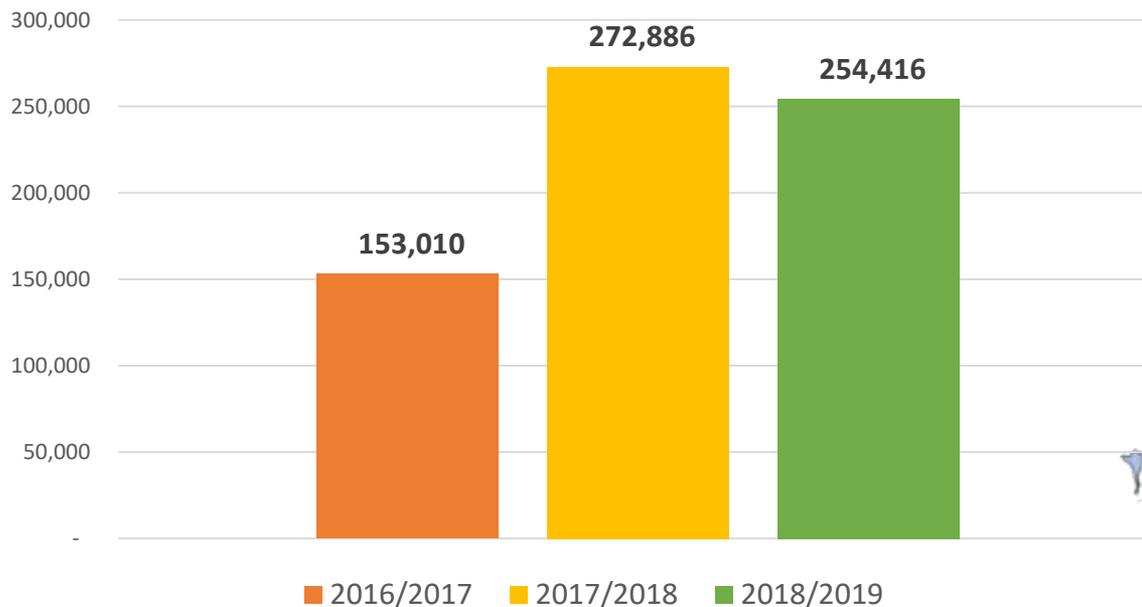
Solar	Wind	Biomass	Small Hydropower	MSW
				
US¢ 7.09/kWh FiT for ground-mounted	US¢ 8.5/kWh FiT for onshore	US¢ 7.03/kWh FiT for combined heat and power projects	AVCT	US¢ 7.28/kWh FiT for Landfill
US¢ 7.69/kWh FiT for floating solar	US¢ 9.8/kWh FiT for offshore	US¢ 8.47/kWh FiT for non-combined heat and power projects		US¢ 10.05/kWh FiT for Incineration
US¢ 8.38/kWh FiT for solar rooftops system			By year, by season, by region	
20 years	20 years	20 years	20 years	20 years
PPA	PPA	PPA	PPA	PPA

Note: FIT stands for **Feed-in tariff**, AVCT stands for **Avoided cost tariff**. The AVCT is calculated annually based on the production cost of the most expensive power plant in the power system.

Bioenergy in Vietnam

- There are **10** bioenergy plants in operation with a **total installed capacity** of **377.6 MW**. Thereof, only **202 MW** is generation capacity (**grid connected**).

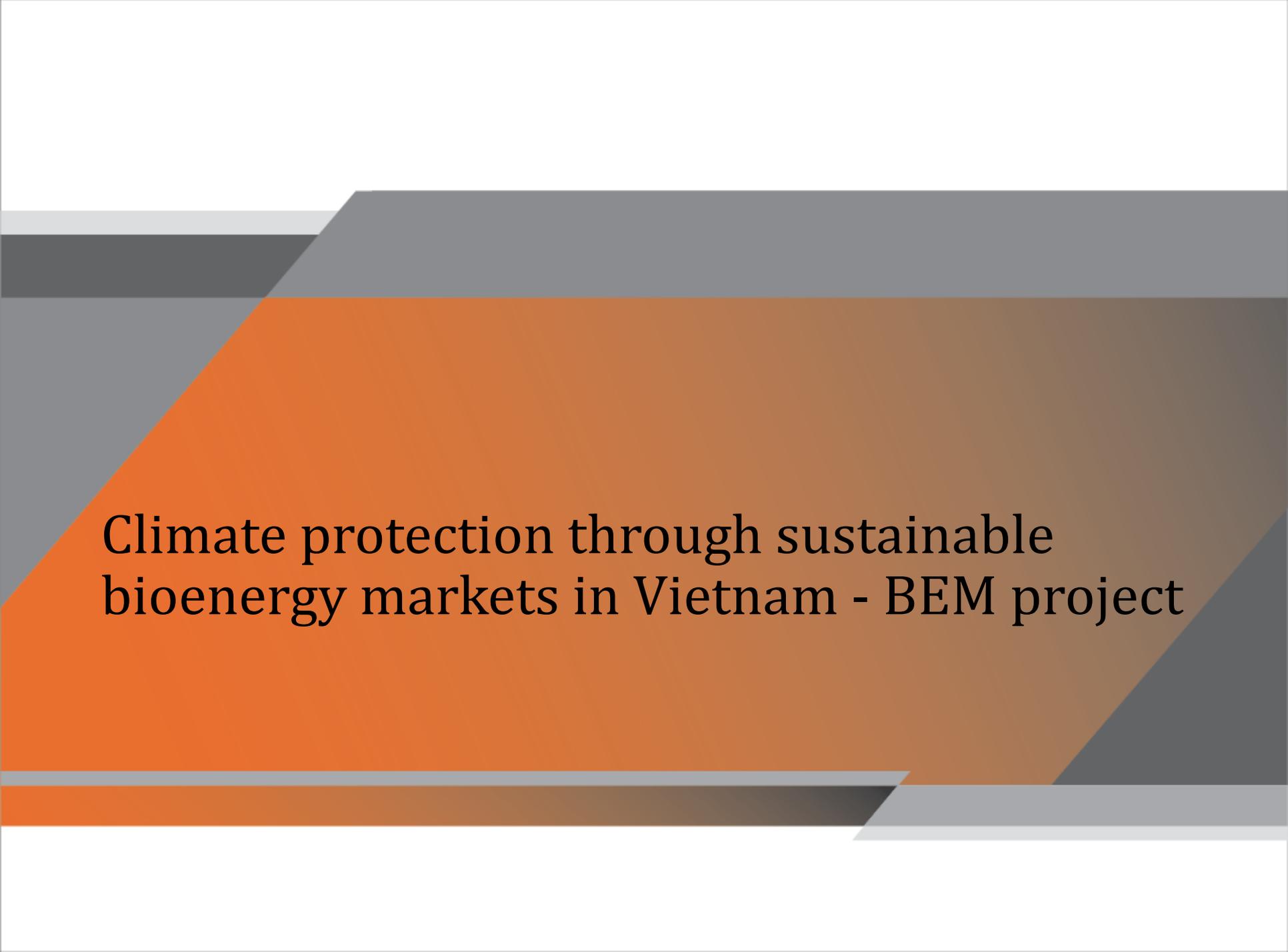
Electricity production to grid from sugar mills (MWh)



Barriers to bioenergy development in Viet Nam

- Insufficient knowledge on state-of-the-art technologies and respective technology transfer partnerships to catalyze market development.
- Capacity shortage of provincial governments for timely planning and licensing procedures.
- Investors' lack of access to information and qualified experts to evaluate bioenergy projects' full potential and feasibility.
- Inadequate capacity of financial institutions in evaluating biomass energy projects; lack of access to financing mechanisms.





Climate protection through sustainable
bioenergy markets in Vietnam - BEM project

About BEM project



Objectives

The aim of BEM is to improve the preconditions for a **sustainable use of biomass for electricity and heat generation** in the country.



Time Frame

April 2019 – March 2023



Funding Agency

German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) through its International Climate Initiative (IKI)



Partners

- Line Agency: MOIT
- Responsible Department: EREA

Expected results of BEM



Legal and
Regulatory
Framework



Capacity
development



Facilitation of
**access to local
loan financing**



Technology
cooperation

1

Facilitate and support adjustment to the **regulatory framework on planning and licensing** of biomass energy projects, in particular on provincial level.

2

Provision of **capacity building to private sector companies** on the design and development of modern biomass energy investment projects.

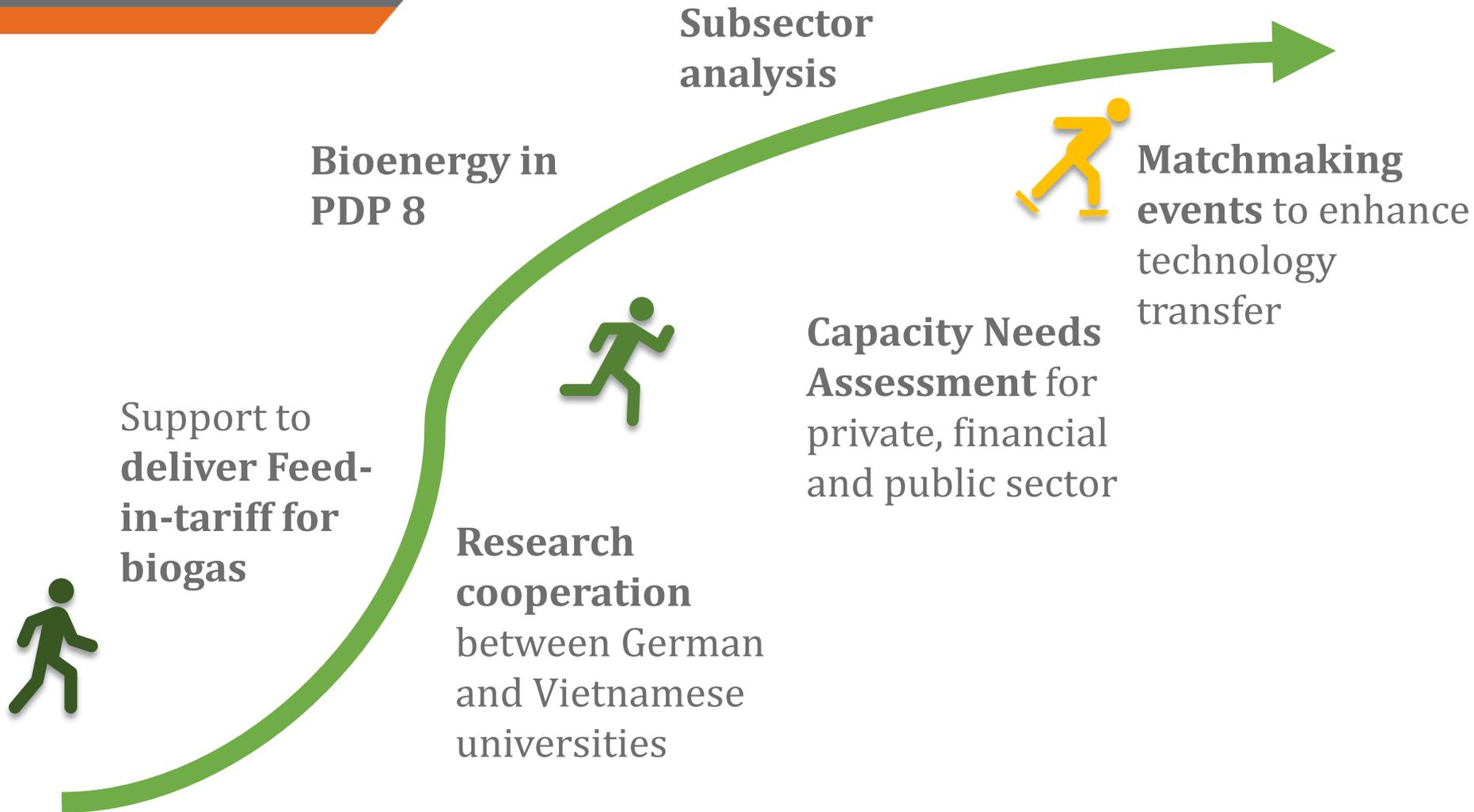
3

Provision of technical support and instruments for the **appraisal and financing** of biomass energy investment project by local financing institutions, in particular local commercial banks.

4

Support and enhance **technology cooperation and networks** between Vietnamese and international enterprises, research and development institutions and universities on the use of biomass resources for electricity and heat generation.

Selected activities in 2020



Guideline for biomass project development and other studies

Biomass Energy Project Development Guidelines is a reference for project development in Vietnam which was introduced by the General Directorate of Energy – Ministry of Industry and with support from Renewable Energy and Energy Efficiency Project under the GIZ Energy Support Programme in Vietnam.



Sweetening the Deal for Biomass Energy in Viet Nam's Sugar Industry

Insight Brief 01/Viet Nam/November 2018



Biomass Energy Project Development Guidelines

Technical Assistance for General Directorate of Energy
Ministry of Industry and Trade

Sweetening the Deal for Biomass Energy in Viet Nam's Sugar Industry is an insight brief builds on the results of the pre-feasibility studies conducted in 2017 by the Global Green Growth Institute and GIZ for five sugar mills.

Perspectives for stakeholders

We offer support to plan and implement bioenergy investment projects through:

- ...facilitating technology cooperation
- ...financing pre-/feasibility studies
- ...provide training and study tours
- ...working with business associations
- ...advising commercial banks on the development of criteria for assessing the bankability of these projects
- ...facilitating sector dialogues, matchmaking events. **The first B2B event is scheduled in September 2020!**
- ...organizing trainings and study trips for consulting firms, project developers, investors and financial institutions

...and possibly more!



Thank you!

Tobias Cossen

Project Director Bioenergy

tobias.cossen@giz.de

+84 (0)24 3941 2605

Further information:

<http://gizenergy.org.vn/en/>

Vietnam Energy Partnership Group

<http://vepg.vn/>



Q&A session