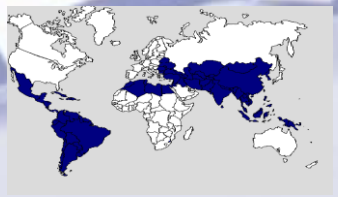
EU Technical Assistance Facility (TAF) for Sustainable Energy

EU TAF Support to Conduct a Strategic Environmental Assessment (SEA) of the PDP VIII

VEPG TECHNICAL WORKING GROUP#5

ENERGY DATA & STATISTICS 6th MEETING

Hanoi, 6 May 2021



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Background and Context

- The assignment's purpose was to support the SEA of PDP 8 in Vietnam
- Time of major change to power sector
- The counterparts, EREA and IE, clear on what support was needed and experienced in SEAs for PDPs
- Support in 2 areas:
  - Issues included in past SEAs but where capacities needed strengthening
  - Issues that were new to SEAs for PDPs in Vietnam

What is an SEA and why include one in PDP 8?

- Legal requirement under LEP 2005 & 2014 and 2017 Law on Planning
- Improves strategic planning, including transparency
- Vehicle for ensuring social and environmental impacts assessed
- Basis for moving to a full economic cost planning process
- Structured process of stakeholder consultation

Methodology Development 1

1. **Strengthening existing capacities**

- Focus on air pollution impacts:
  - Assessment of emissions from thermal power plants
  - Social value of carbon
  - Human health impacts
- Refined assessment of transmission line impacts
- Strengthened the consultation process in the SEA

Methodology Development 2

2. New Methodology Areas

- Challenge as sites and size of investments in the plan not known so need generic method
- Focus on Renewable Energy Impacts, especially land for terrestrial wind and solar
  - Floating solar
  - Offshore wind power
  - Small-scale hydropower
  - Impacts of terrestrial solar and wind power

Capacity Development

Capacity Development

- Covid crisis meant change to remote support and online modules

Manual for supervising and reviewing an SEA

- Structured 7 step review process with measurable criteria

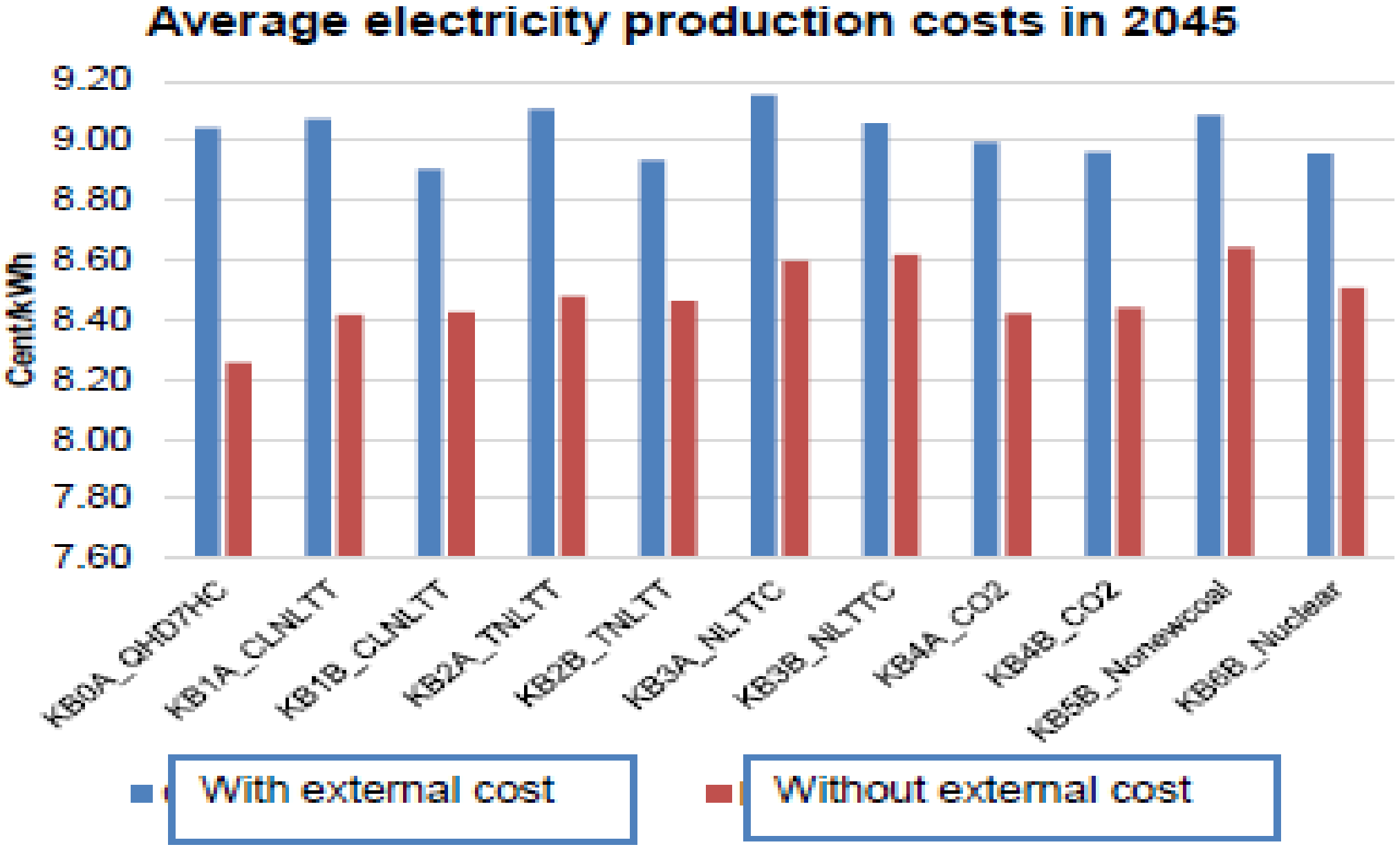
The Results: Draft PDP 8 & SEA Reports

1. The draft PDP 8 and SEA reports have been published and show the impacts of the assignment
2. THE KEY: the identification of power generation scenarios in the plan is based on a **full economic cost** approach that internalizes the values of social and environmental impacts
3. A first, not just for Vietnam but for the region and much of the world
4. Result is a dramatic growth of renewables and major reduction in predicted expansion of coal

Comparing PDP 8 and PDP 7

Generation Mix for 2030 of Vietnam's Power Development Plans (Megawatts)

	PDP 7 (2011)	RPDP 7 (2016)	Draft PDP 8 (2020)
Generation capacity 2030	137,388	129,508	136,700
Coal	77,160	55,252	37,200
Natural gas and oil	17,465	19,078	28,500
Hydropower	21,125	21,871	24,700
Other renewable energy	4,829	27,199	40,600
Nuclear	10,700	4,600	0
Imported	6,109	1,508	5,700


Average electricity production costs in 2045
Cent/kWh
9.20
9.00
8.80
8.60
8.40
8.20
8.00
7.80
7.60
KB0A_GHD7HC
KB1A_CLNLTT
KB1B_CLNLTT
KB2A_TNLTT
KB2B_TNLTT
KB3A_NLTTC
KB3B_NLTTC
KB4A_CO2
KB4B_CO2
KB5B_Nonewcoal
KB6B_Nuclear
With external cost
Without external cost

Conclusions

- Successful outcomes despite challenges resulting from Covid crisis
- Flexible and demand responsive approach
- Very high appreciation expressed by EREA and IE
- Number of methodological and analytical innovations that have international significance
- Online modules likewise important for future capacity development work
- Results can be seen in the draft PDP 7 and SEA reports

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Thank you for your kind attention