

Energy Efficiency as Stimulus in a Post-COVID19 Economic Recovery

Philippines: Job generation by accelerating energy efficiency spending in the public sector



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13 October 2020



APEIA

Asia-Pacific ESCO Industry Alliance

Eight country ESCO associations have officially established the Asia-Pacific ESCO Industry Alliance (APEIA) through its meetings from June 2018-October 2019.



Knowledge flow

Knowledge events (e.g. seminars, conferences, workshops, exhibitions) and knowledge-sharing channels (e.g. website, publications, other knowledge products)

ESCO sector development

Build technical capacities in nascent ESCO markets by organizing and conducting training programs leading to the certification of energy managers, measurement & verification professionals and other ESCO specialists

Carbon market transactions

Facilitate carbon asset management projects, carbon emission reduction and energy savings offset trading for RE and EE companies

Easing technology deployment

Facilitate and encourage research & development, test-bedding & pilot-testing of technologies in energy efficiency

Facilitating investments

Provide a platform for governmental, developmental and commercial investors to engage with developers of energy efficiency projects

Business development

Promote business development through conferences, ESCO trade missions, business matching meetings, exhibitions and other networking events

Enabling market interventions

Engage with the relevant government agencies, development agencies, international financial institutions and industry associations to mobilize grant, debt capital, knowledge and other in-kind resources to enable the implementation of the above-mentioned activities



China



India



Japan



Korea



Malaysia



Philippines



Singapore



Taiwan

With the recent passage of RA 11285, the Philippines finally rejoins the many jurisdictions around the world with an Energy Efficiency law and incentive framework in place

[REPUBLIC ACT No. 11285]

AN ACT INSTITUTIONALIZING ENERGY EFFICIENCY AND CONSERVATION, ENHANCING THE EFFICIENT USE OF ENERGY, AND GRANTING INCENTIVES TO ENERGY EFFICIENCY AND CONSERVATION PROJECTS

Approved: APR 12 2019



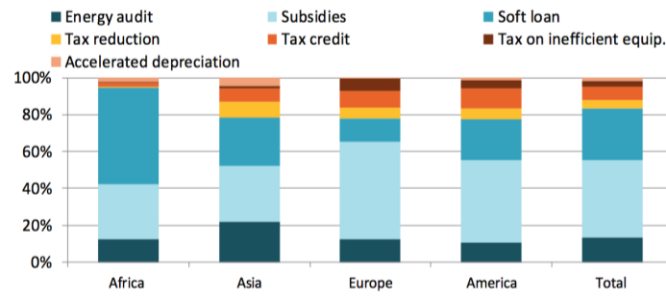
RODRIGO ROA DUTERTE
President of the Philippines



Several EE policy measures incorporate fiscal, tax-based incentives

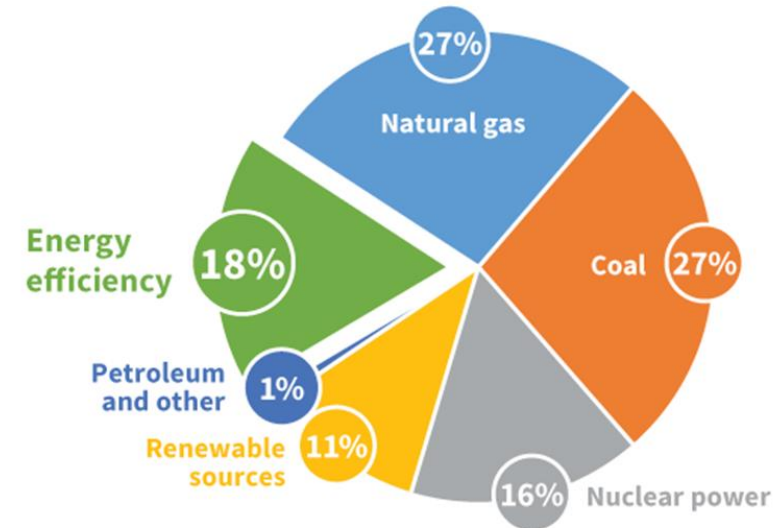
Source: Enerdata

- Asian countries tend to employ more tax reductions than tax credits
- Reduction on VAT and on import tax on EE equipment is widely used in developing countries



Dispatching energy efficiency (EE) as the “first fuel” Energy markets need to gradually move toward integral resource planning

Share of US electricity generation by resource in 2015

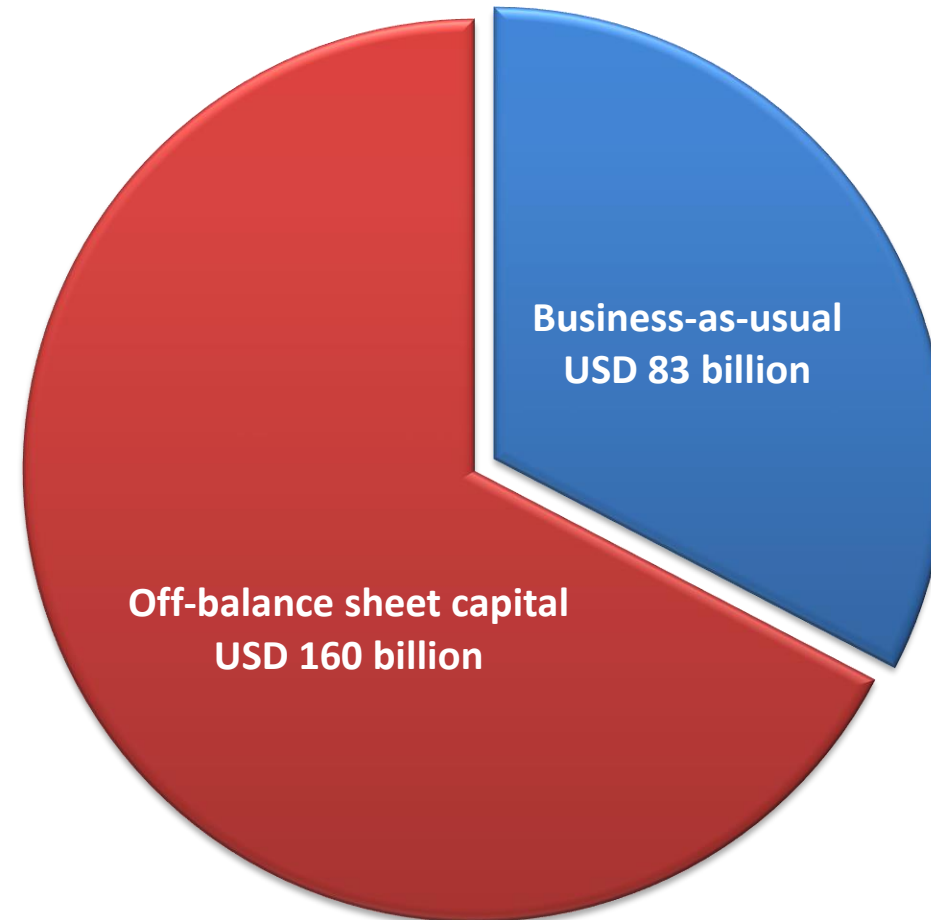


Source: EIA for all except energy efficiency, which is based on ACEEE estimates. EIA data source is May 2016 Monthly Energy Review, Table 7.2a Electricity Net Generation: Total (All Sectors).



Source: ACEEE, 2016

Philippines' EE capital requirements, 2017-2040



Off-balance sheet* EE capital flows through:

- ESCO performance contracts
- PPP transactions
- JV agreements
- Government, large-scale retrofit programs
- Other off-balance-sheet* modalities

Business-as-usual EE capital to be mobilized through:

- Self-financed
- Debt-financed
- Lease-financed
- Other on-balance-sheet* modalities

* Balance sheet of host or end-user of EE project

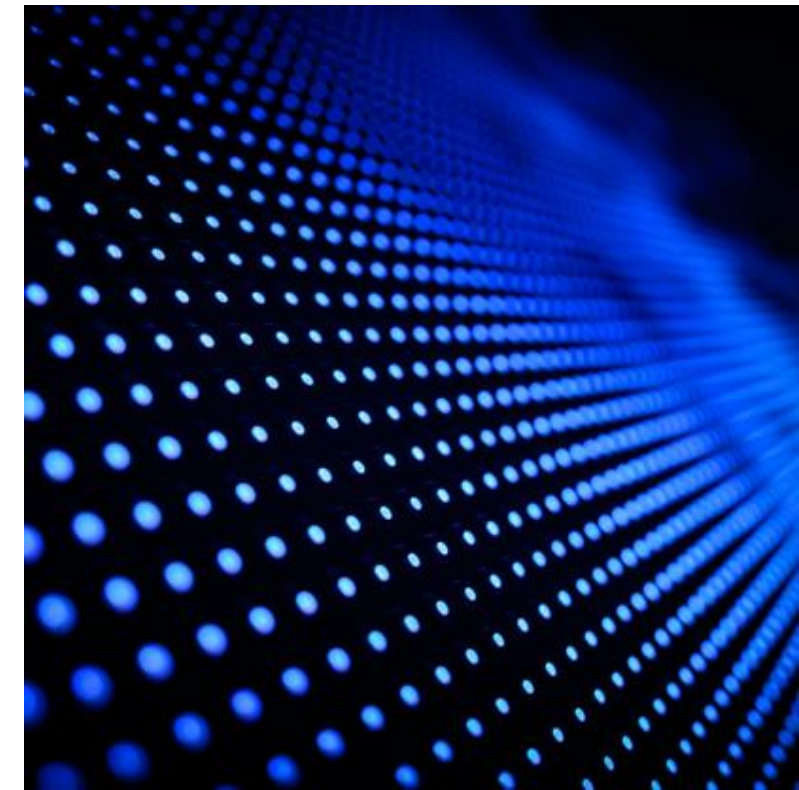
Source: A. Ablaza, PE2, 2019

International Energy Agency: Energy efficiency and economic stimulus (strategic considerations for policy makers), 8 April 2020



- **Energy efficiency actions can support the goals of economic stimulus programmes** by supporting existing workforces and creating new jobs, boosting economic activity in key labor-intensive sectors, and delivering longer-term benefits such as increased competitiveness, reduced greenhouse gas emissions, improved energy affordability and lower bills.
- **Governments can deliver stimulus at scale and speed** by leveraging existing programmes and standardizing designs, eligibility criteria and contracts; choosing shovel-ready options for retrofits and technology upgrades; and considering how energy efficiency can be built into all government stimulus programmes.
- **Important market considerations** include aiming for high energy efficiency without constraining programme delivery; setting sufficiently attractive incentives to deliver high uptake without significantly increasing program costs and risks; considering the capacity of suppliers to scale up rapidly while maintaining quality and safety of products and services; and considering the consumer motivations and demand for products and services.
- **Government can facilitate better outcomes from large-scale investment programmes** by addressing unnecessary regulatory barriers; turning short-term impacts into long-term transformations by raising energy efficiency standards; and considering the resource efficiency impacts and recycling sector opportunities as part of programme design.

lead



PE2 proposes energy efficiency as post-COVID economic stimulus to DOE, NEDA, Congress, 23 April 2020



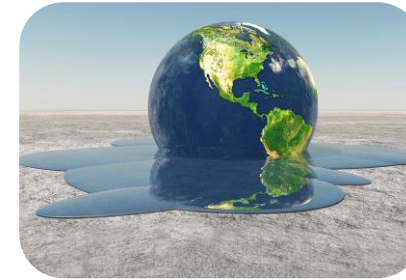
Cost-effective and swift job generator



Proven speed of delivering economic impacts



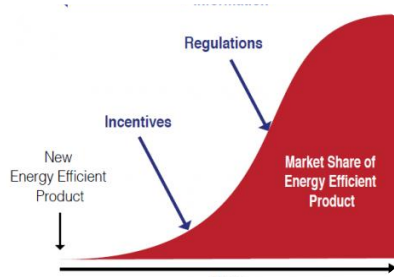
Minimal local environment impacts



Optimal climate change mitigation impacts



Public buildings will need USD 1.32 billion to shave 1.6 TWh/yr



Over 2 decades experience in EE market transformation



GFI's will need to scale-up concessional EE lending



Economy will need USD 243 billion in EE capital through 2040



EE&C Act provides policy framework for EE stimulus activities

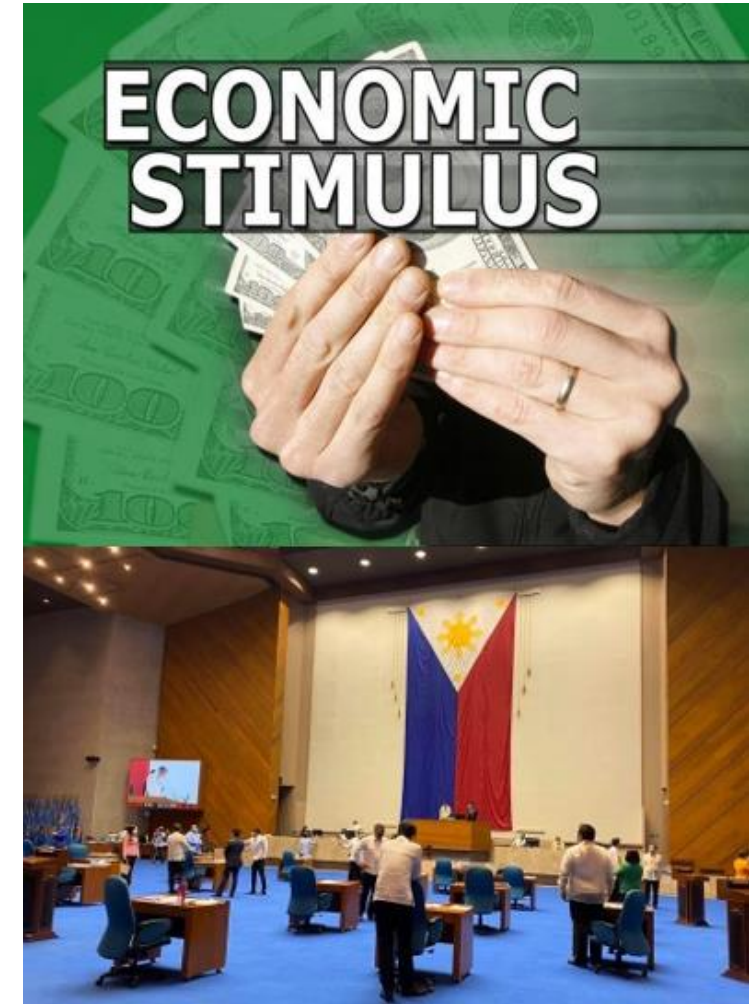


EE should be treated as infrastructure

PE2 recommends USD 1.1 billion EE funding in economic stimulus package, 23 April 2020

PE2 submitted its official comments to the Economic Stimulus Response Package (ESRP) Cluster of the Defeat COVID-19 Special Committee of the House of Representatives for the inclusion of a USD 1.1 billion energy efficiency component of the economic recovery package under the proposed consolidated bill for the Philippine Economic Stimulus Act (PESA). Among the salient comments of PE2 were:

		
<p>To “promote employment generating industries” was included in the declaration of policy</p>	<p>The 2 government financial institutions shall offer EE loans at concessional terms</p>	<p>The development of government EE projects as improvements in public buildings and facilities</p>



DOE issues no-objection to PE2 position on EE as economic stimulus, 4 May 2020



The Department of Energy (DOE), through its Energy Utilization Management Bureau (EUMB), issued PE2 a no-objection letter on the PE2 position statement, “Supporting the International Energy Agency’s Call to Include Energy Efficiency as Economic Stimulus.”



“Energy efficiency brings forth conserved resources in all accounts. The advantages are boundless and limitless on the economic standpoint and on the development perspective. Let us build the momentum for the cause of the energy efficiency and conservation and speed ahead to a progressive and sustainable Philippines.” - Director Patrick T. Aquino, CESO III
DOE-Energy Utilization and Management Bureau



7 OCTOBER 2020
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#ECWAYOFLIFE

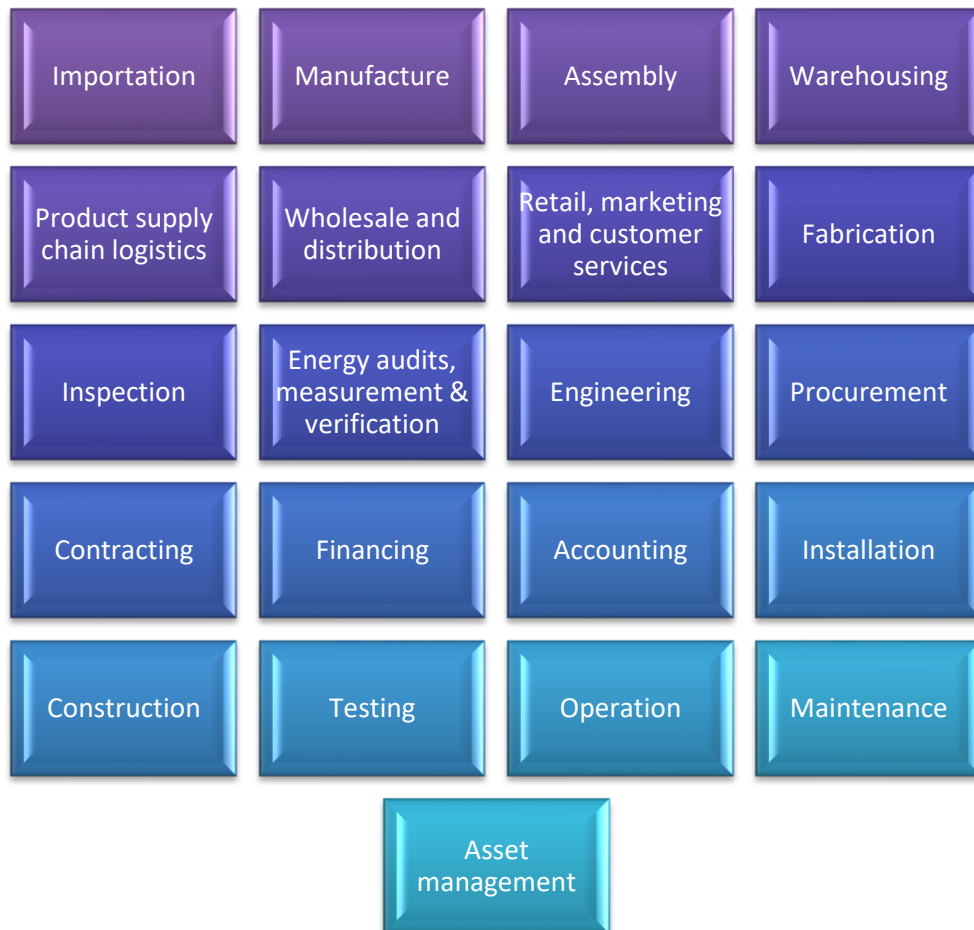


@EUASEPTA

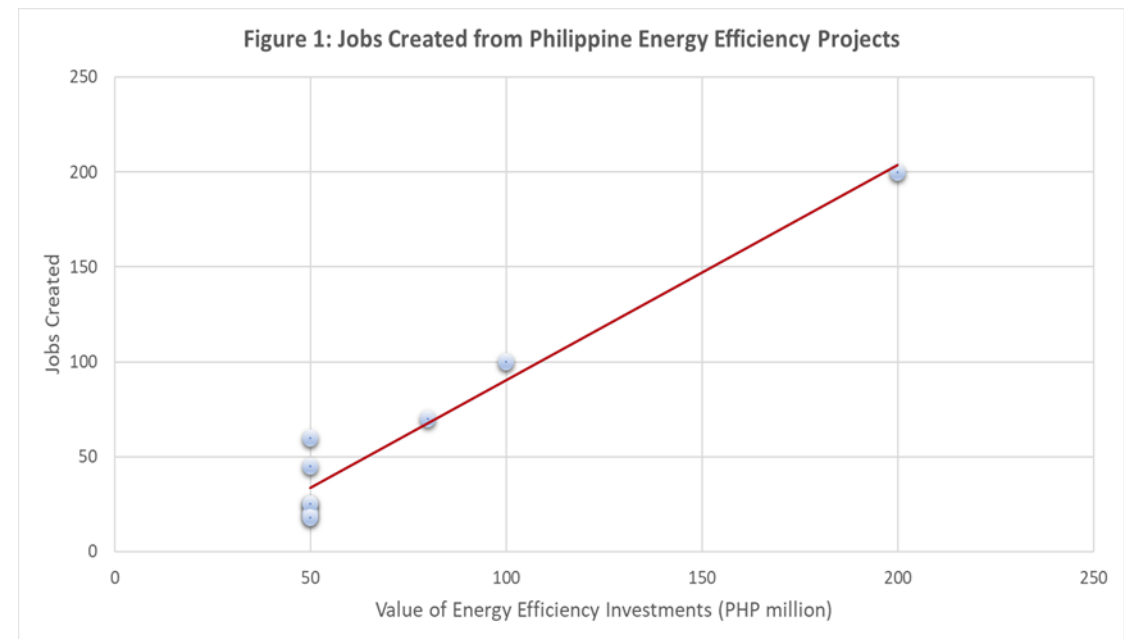
PE2 conducts job survey in EE sector, May 2020



Energy efficiency projects and investments create jobs across various components of project cycles and supply chains



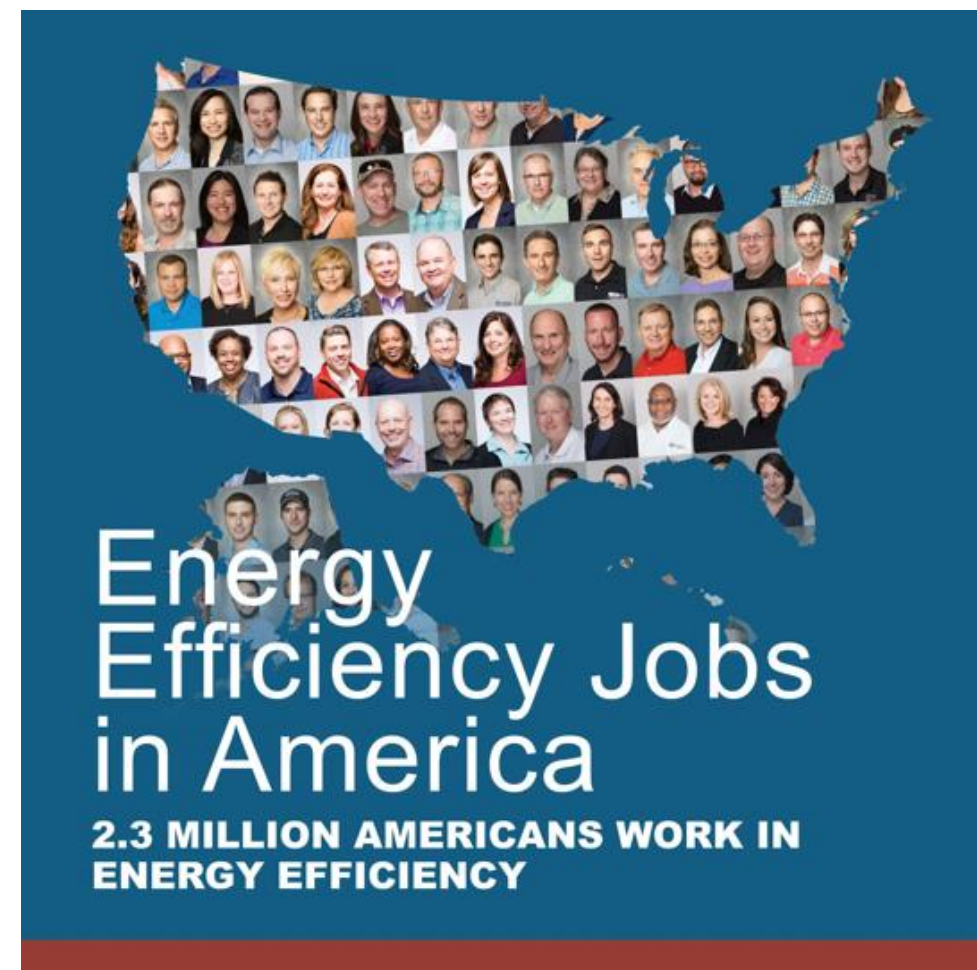
A low of 18 jobs to a high of 200 jobs are created by energy efficiency investments ranging from USD 1 million to USD 4 million in project size



EE job generation in other jurisdictions

- In the US, the largest contributor of new jobs created in the energy sector in 2019 was energy efficiency. Energy efficiency contributed a hefty **45%-55% share of new jobs in the US energy sector** in the last 3 years.
- A survey of 35 energy efficiency programs and stimulus packages across the EU, UK, US and Canada concludes that an average **19.3 jobs were created for every EUR 1 million** invested in energy efficiency.
- In Australia, energy efficiency jobs were estimated to be within the 58,569-236,353 range, **outsizing all other energy sectors**. Job potential is estimated at **120,411 job-years**.

Sources: 2020 US Energy and Employment Report by NASEO-EFI, A Survey of the Employment Effects of Investment in Energy Efficiency of Buildings, by Rod Janssen and Dan Staniaszek, Energy Efficiency Industrial Forum, May 2012; Energy Efficiency Council (Australia), Sep 2020.



PE2 position: EE creates 45% more jobs than infrastructure for the same amount of stimulus, 1 June 2020



Comparison of Labor Intensities between Infrastructure Program and Energy Efficiency Investments in the Philippines

	Build, Build, Build (BBB) Infrastructure Program 2019-2022	Proposed BBB component of Stimulus Bill 2021-2023	Energy Efficiency and Conservation Roadmap 2017-2040	Proposed Energy Efficiency component of Stimulus Bill 2021-2023
Estimated Investments	USD 170 billion*	USD 13 billion	USD 243 billion	USD 1.1 billion
Jobs Created	4.4 million jobs**	336,400 jobs***	9.1 million jobs	41,200 jobs
Labor Intensity (Jobs / USD million)	25.88 jobs / USD million		37.42 jobs / USD million	

*Calculated from average of DBM estimates of PHP 8 trillion – PHP 9 trillion investment target through Duterte administration.

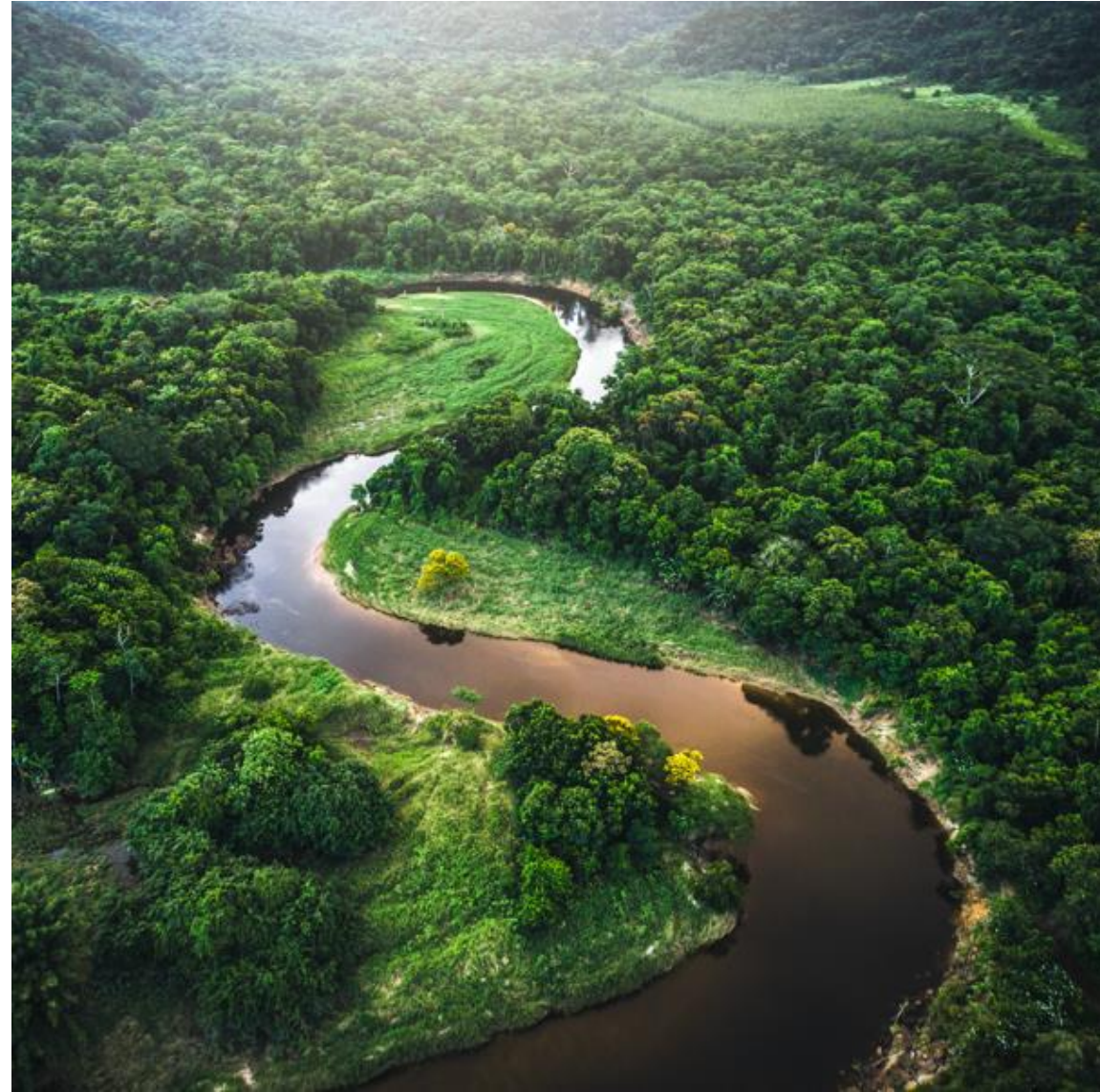
**Calculated for a 4-year period from DBM estimate of 1.1 million jobs created annually.

***Calculated using labor intensity of entire BBB program.

Conclusion

- While governments tend to prioritize infrastructure projects to stimulate the economy, there is a clear, more sustainable, climate-friendly pathway to create more jobs through energy efficiency.
- Pushing energy efficiency through stimulus legislation is just an initial step. There are other policy interventions possible to enable accelerated spending in public sector energy efficiency projects.

Photo: IEA: Sustainable Recovery. World Energy Outlook Special Report. Flagship report, June 2020



Thank You

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