Rajat is passionate about empowering enterprises to do better with less and work towards sustainable growth. He is co-founder and technical lead at STENUM Asia in training, consultancy, audit and implementation support for enterprises. He has been actively practicing Resource Efficient Cleaner Production at various levels for over a decade having undergone extensive training on sustainable development in Europe. He is also developing strategies for enterprises to make a transition towards the circular economy. With over 20 years of experience managing manufacturing operations, also as an entrepreneur, he brings to his consulting work, a deep understanding of the issues and challenges businesses face.

Rajat Batra

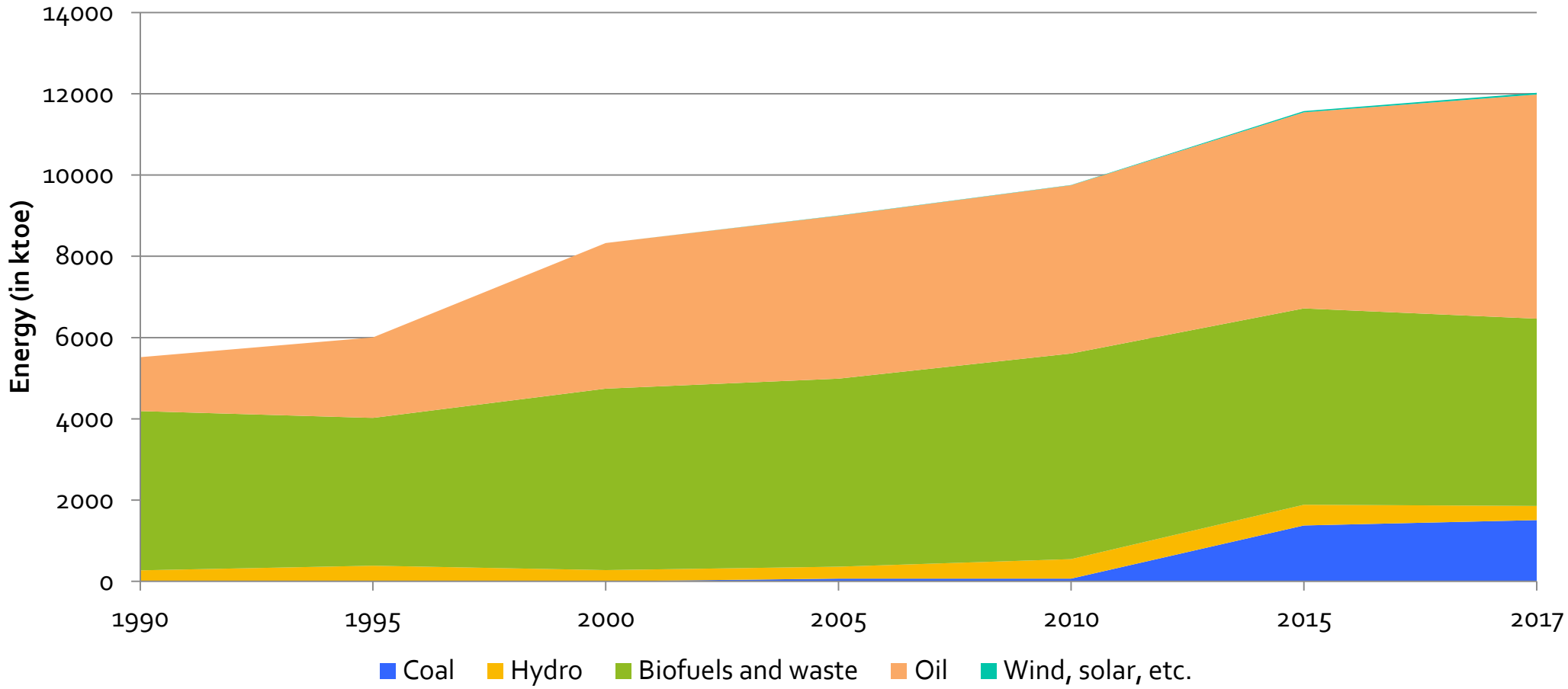
CEO

STENUM Asia

(SUSTENT Group)

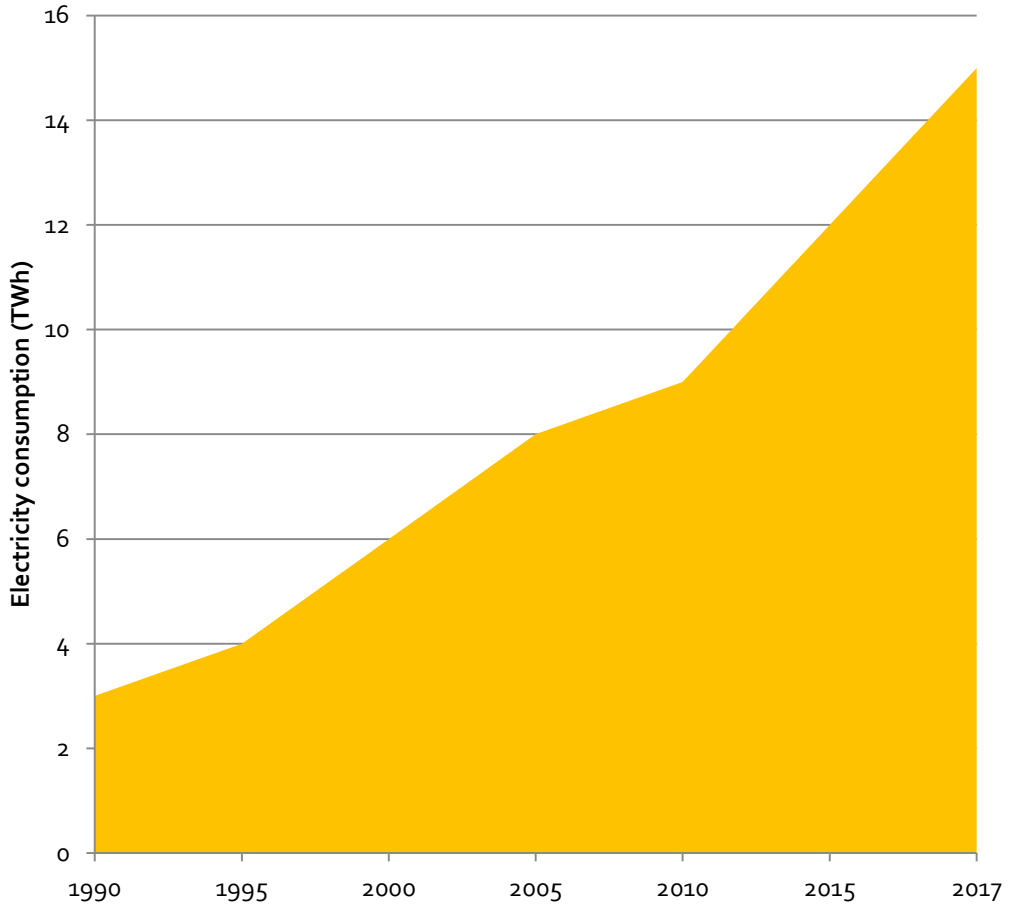
Regional experience in sustainable energy

Total primary energy supply (by source) Sri Lanka

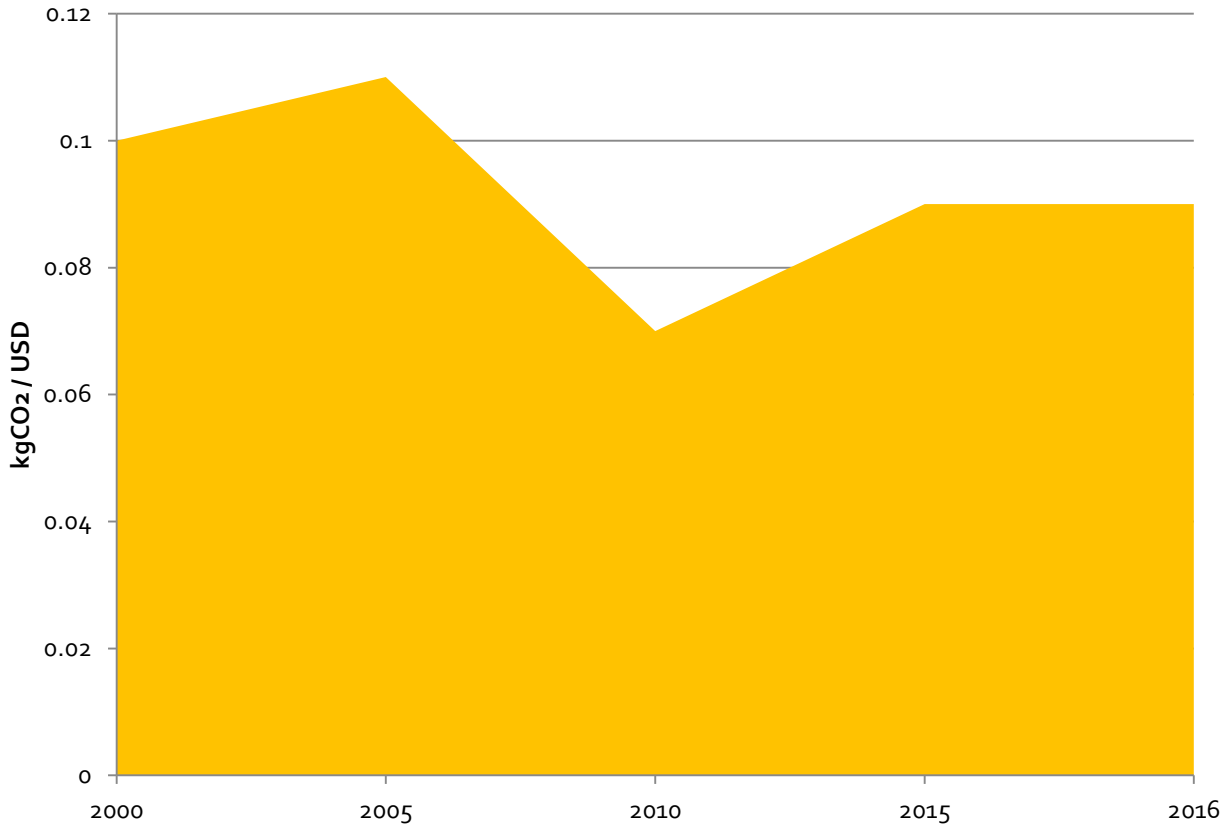


Source: International Energy Agency (IEA) data services

Electricity consumption Sri Lanka

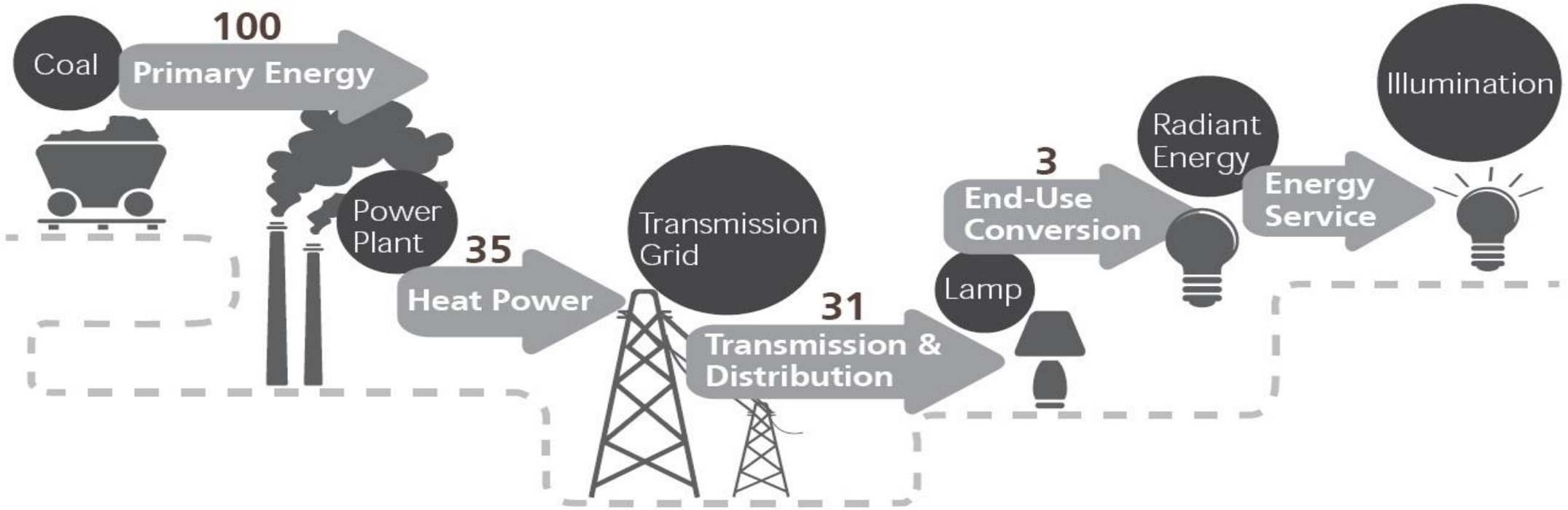


CO_2 emissions per unit of value added (SDG 9.4) Sri Lanka

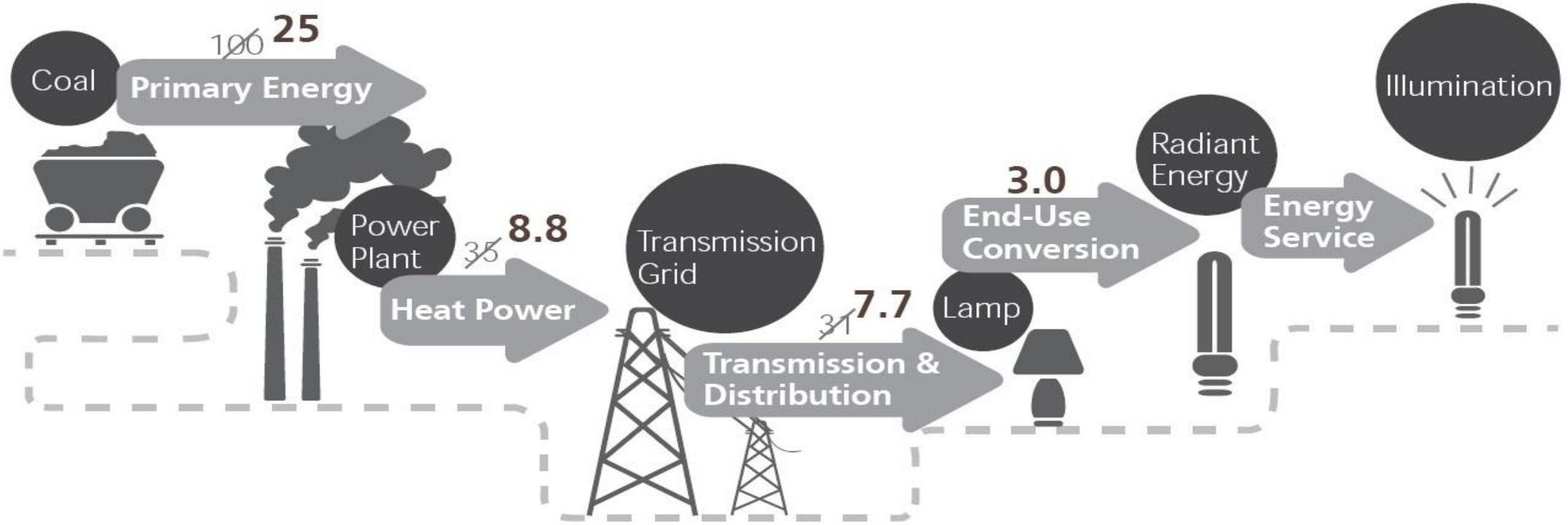


Source: International Energy Agency (IEA) data services

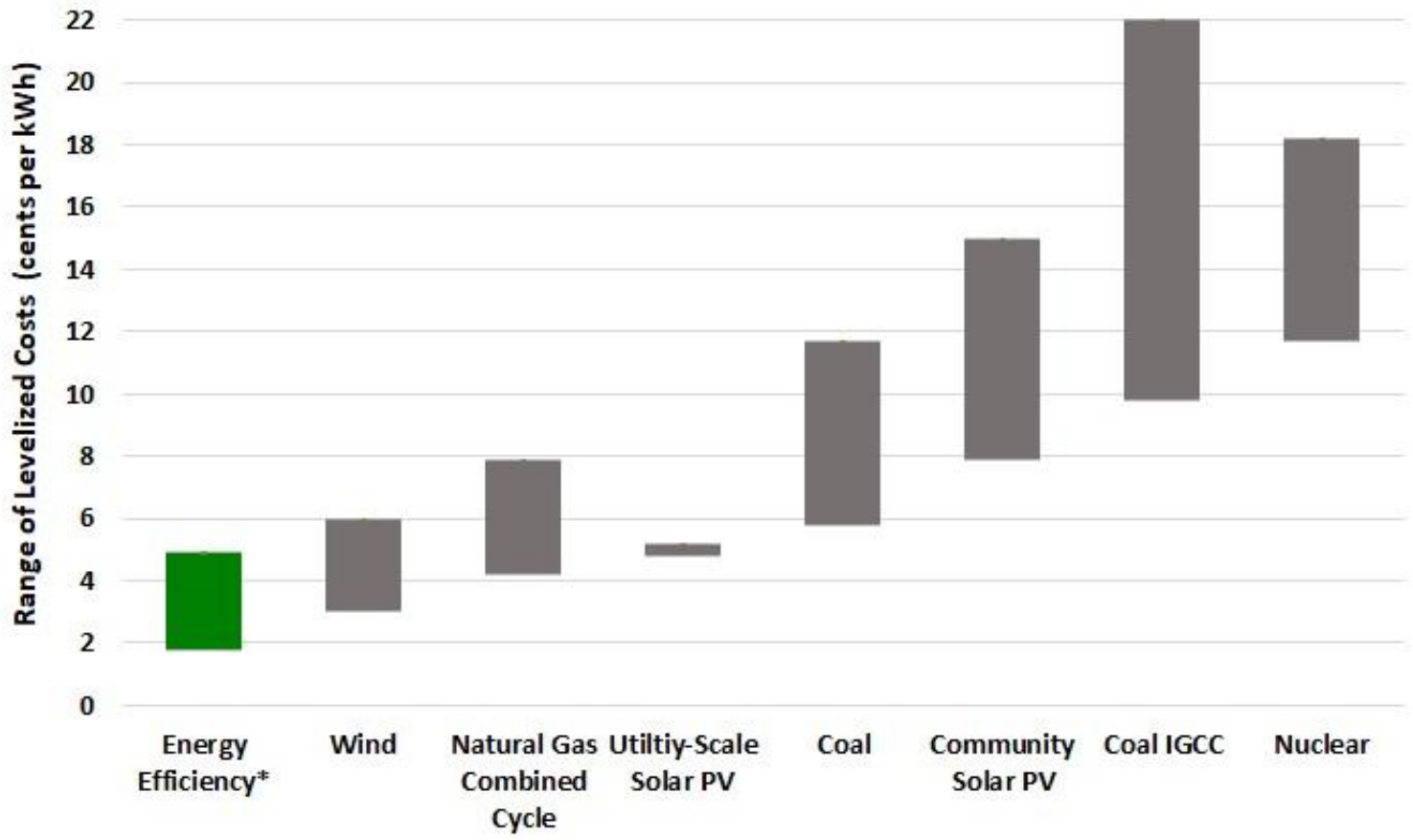
Energy saving rationale



Energy saving rationale



Levelised Cost of Electricity Resources



*Notes: Energy Efficiency program portfolio data from Molina 2014; All other data from Lazard 2017. High-end range of coal includes 90% carbon capture and compression.

Saving energy is cheaper than generating energy!

Source: http://aceee.org/blog/2017/12/new-data-same-results-saving-energy

METABUILD project - results related to sustainable energy

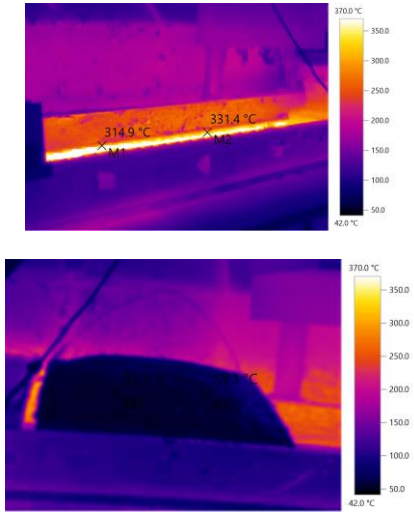
	Nepal	Sri Lanka	Bangladesh
Energy consumption reduction through implemented actions (measure level)	39%	23%	25%
Energy consumption reduction per annum (in kWh)	1,06,32,728	99,88,869	76,73,511
Cost savings through energy savings per annum (in €)	3,72,980	2,73,190	4,84,154
CO_2 emissions reduced per annum (t)	3,997	3,164	2,519
Energy saving measures implemented (nos.)	262	269	825

Source: METABUILD project results as of 30-Sep-2019

Machinery modifications at a steel industry in Sri Lanka

- Ball bearings are introduced in a 600 kW motor instead of fibre based bearings. Thereby reducing the electrical load by ~50%
- Annual savings: 399,840 kWh of electricity
- Payback period: 3 months

Improving insulation at a galvanising unit in Sri Lanka



- Top surface of molten Zinc bath has been covered using a glass wool mounted steel frame
- Heat energy loss has been reduced significantly while making it easier for workers as well
- Annual savings: 8,179 l fuel
- Payback: 1 month

Motor replacement at a wire drawing unit in Nepal

- High Energy Efficiency grade motors are being installed in place of old motors in phased manner.
- In first phase, 45 out of 400 motors have been replaced
- Annual savings: 205,518 kWh electricity
- Payback period: 8 months

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Solar PV rooftop plant at a cable manufacturing unit in Sri Lanka

- A 104 kW_p roof top Solar Photo Voltaic system is installed. Excess electricity produced is sold to the national grid
- Annual savings: 152,000 kWh of electricity
- Payback period: 54 months

Biomass boiler at Vinh Phuc province, Vietnam

- Biomass gasifier replaced a coal-fired boiler
- Uses biomass pellet as fuel. The new boiler system retains its steam output: 0.5 t/h at max. 8 kg/cm2
- Operating cost 15~30% cheaper than coal

Concentrated Parabolic Collector at knitwear unit at Tirpur, India

- Producing steam for ironing to supplement existing steam boiler
- Diesel boiler: 71,500 kWh of fuel saved
- Payback period: less than 3 years

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SUSTENT Consulting Pvt. Ltd.

Helping enterprises become
more Resource Efficient

International Conference on Resource Efficiency and Circular Economy

Thank You...!