

## **Southeast Asia's growing energy deficit to boost trade flows by 2040: IEA**

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Southeast Asia's growing deficit of fossil fuels including oil, natural gas and coal up to 2040 will dictate energy trends for the whole region, including trade flows, investments and policy making, according to the International Energy Agency's latest outlook.

The deficit of primary energy sources will be triggered by a combination of declining production and reserves in the region, ballooning demand due to rising population and regulations that curb exploitation of natural resources.

While each country faces different challenges, in total the region will be short of oil, gas and coal by 2040, the IEA said in its 2017 Southeast Asia Energy Outlook.

"Flattening gas production and rising demand in recent year's calls into question the position of Southeast Asia as a net gas exporter," the IEA's director of energy markets and security Keisuke Sadamori said.

He said rising oil demand and declining production have already increased the region's dependency on oil imports to around 60%, and strong economic and demographic changes will ensure this dependency becomes further entrenched.

Southeast Asia's energy demand has risen 60% since 2000, but per capita primary energy demand is still only half of the global average, Sadamori said, adding that about 65 million people in the region still lack access to electricity and 250 million people rely on biomass for cooking.

This demand will have to be met by imports, often with hefty bills.

The energy deficit already cost the region \$20 billion in 2016, and dramatic changes in energy trade balances will see deficits balloon to \$300 billion by 2040, equal to 4% of the region's GDP, with major implications for Southeast Asia's energy security.

### GROWING ENERGY DEFICIT

The IEA forecasts Southeast Asia's oil production to continue declining up to 2040, as lower production in Indonesia, Malaysia and Thailand is not fully offset by higher output in Brunei and Philippines.

"By 2040, total oil production falls to 1.7 million b/d, a 30% drop on today's level," the IEA said.

Southeast Asia's oil demand on the other hand will grow to 6.6 million b/d by 2040, from 4.7 million b/d in 2016, with over 60% of the increase coming from the transport sector alone as the vehicle fleet grows by 26 million cars and 1.6 million trucks.

The gap in supply and demand will have to be filled with crude from other regions, boosting trade flows. But the deficit is not restricted to crude alone due to hiccups in Southeast Asia's refining capacity additions.

Southeast Asia's oil refining capacity is expected to reach 7.7 million b/d by 2040, up from current levels of 4.8 million b/d, but even this growth will be insufficient, forcing the region to be a net product importer of 1.3 million b/d by 2040, the IEA said. NATURAL GAS FACES SIMILAR FATE

The agency has slashed its 2040 gas production forecast for Indonesia by 45 Bcm to 90 Bcm, a downward revision from its last outlook published in 2015.

It cited constraints in the development of resources like East Natuna, Asia's largest untapped gas field offshore Western Kalimantan, especially in the face of low LNG prices globally. It has excluded the Natuna project from its 2017 production estimates for Indonesia.

"Currently some 40% of Indonesia's production is geared towards exports, but the increase in supply over the period is not sufficient to offset domestic demand increases, and the country becomes a net importer of natural gas in the mid-2030s," the IEA said.

Other key Southeast Asian gas producers like Malaysia face the uphill task of reviving output from aging fields at prohibitively high recovery costs.

Malaysian gas production likely peaked in 2016 peak at 70 Bcm, and is expected to go into long-term decline, dropping to 55 Bcm by 2040.

"As a result, Malaysian LNG imports grow markedly over the next 25 years to meet domestic demand," the IEA said.

Indonesia also emerges as the main driver for the decline in Southeast Asia's coal production.

Southeast Asia's coal production is expected to fall to 375 million mt of coal equivalent by 2040 from 400 mtce in 2016, attributed in its entirety to Indonesia's decision to cap coal production at 300 mtce from 2019, the IEA said.

The Paris-based energy watchdog, however, left some room for doubt when it said that Jakarta's implementation of coal production curbs is likely to be patchy due to a highly fragmented industry.

Nevertheless, Southeast Asia is expected to become a net coal importer by 2040, due to growing regional demand, and Australia, Russia and South Africa are likely to fill the gap.

"This contrasts starkly with the trend over the last 25 years that saw a very steep rise in exports from the region," the IEA said.