



Case Study of Viet Nam

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Workshop: International Experience on Energy Tariff Reforms

April 19, 2023 | Tashkent, Uzbekistan

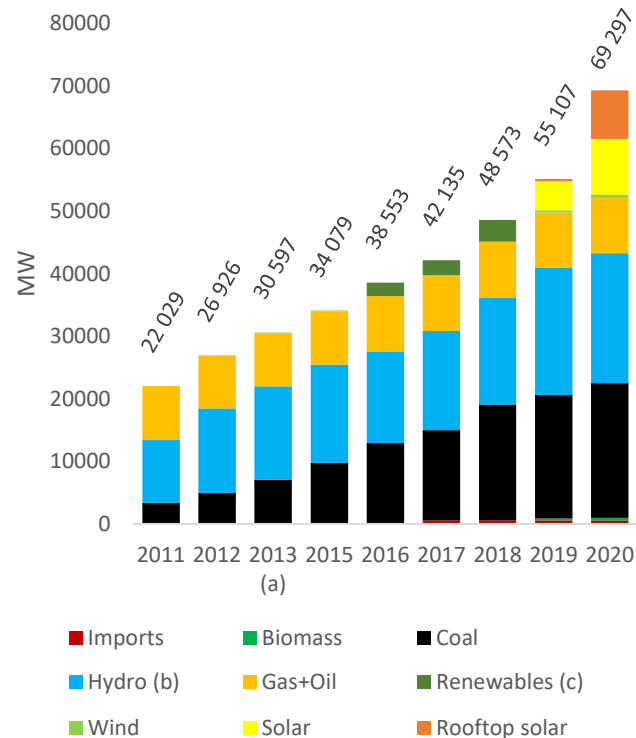
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Viet Nam's power sector

Characterised by rapid growth and by a large recent expansion in solar power

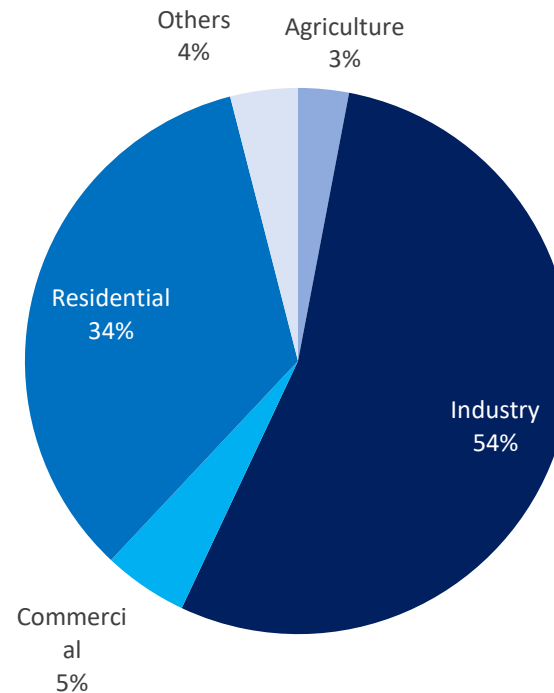
Generating capacity has tripled in 10 years (+47 GW)



Source: [EVN Annual Reports](#), various years

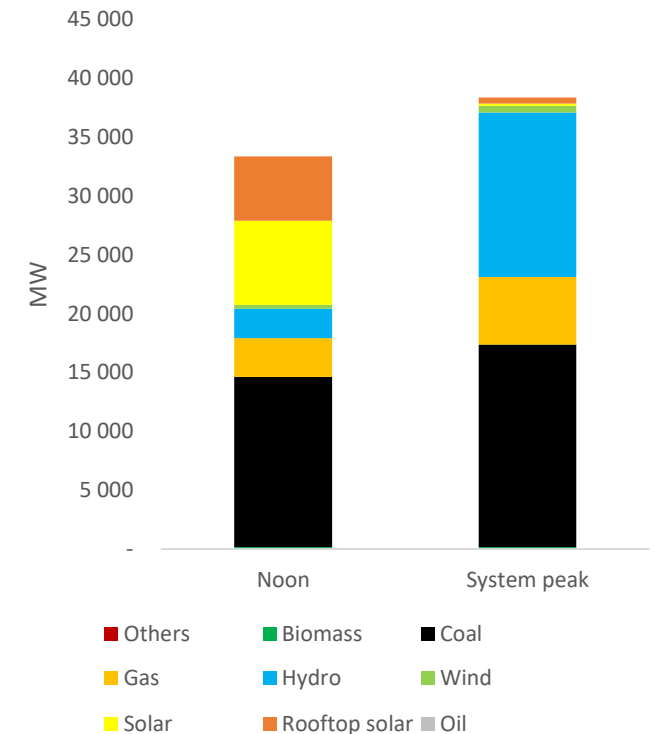
- (a) Data not available for 2014
- (b) Small hydro (<30 MW) is reported as “hydro” in 2011-13 and 2019-20 and as “renewables” in 2016-18
- (c) For 2016-18, renewables are reported collectively and include small hydro

Demand growth averages 9.4% pa, with sales dominated by industry



Source: [EVN Annual Report 2020](#)

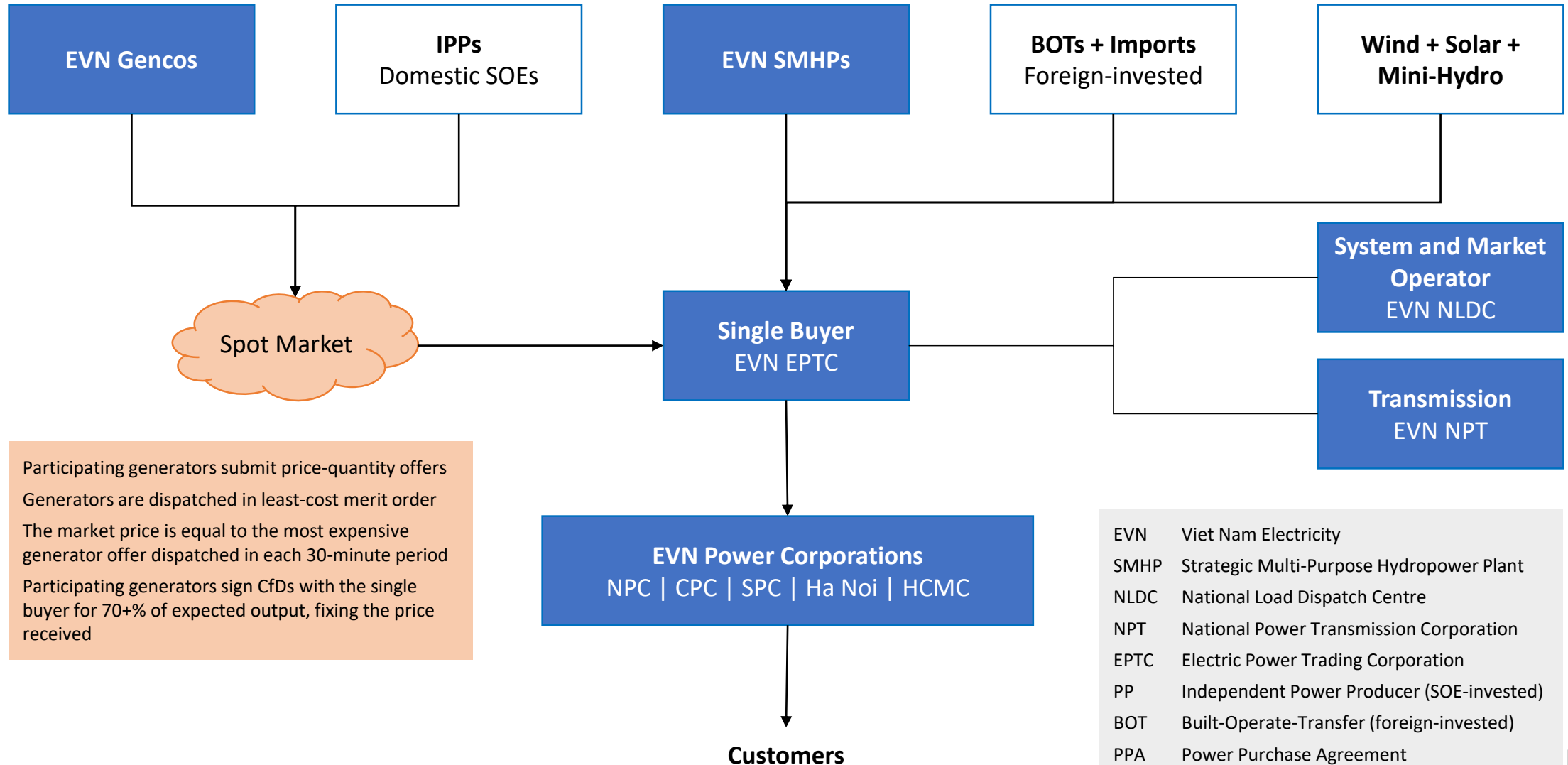
High solar penetration is leading to large within-day changes in fuel mix



Source: [National Load Dispatch Centre](#) (6 April 2023)

Viet Nam's power market

Competitive generation market, regulated retail market

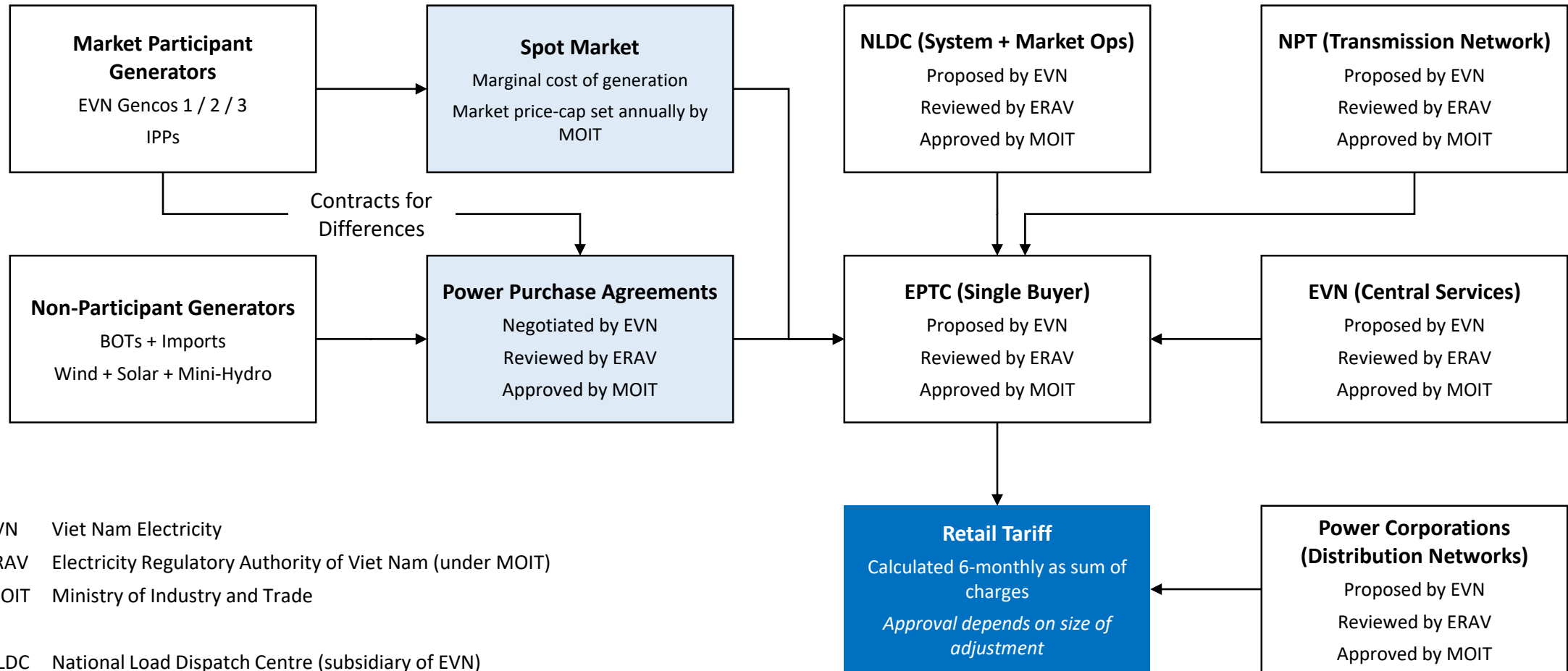


Participating generators submit price-quantity offers
 Generators are dispatched in least-cost merit order
 The market price is equal to the most expensive generator offer dispatched in each 30-minute period
 Participating generators sign CfDs with the single buyer for 70+% of expected output, fixing the price received

EVN	Viet Nam Electricity
SMHP	Strategic Multi-Purpose Hydropower Plant
NLDC	National Load Dispatch Centre
NPT	National Power Transmission Corporation
EPTC	Electric Power Trading Corporation
PP	Independent Power Producer (SOE-invested)
BOT	Built-Operate-Transfer (foreign-invested)
PPA	Power Purchase Agreement
CfD	Contract for Differences

Calculation of retail tariffs

Retail tariffs are calculated as the sum of cost-based charges for each activity

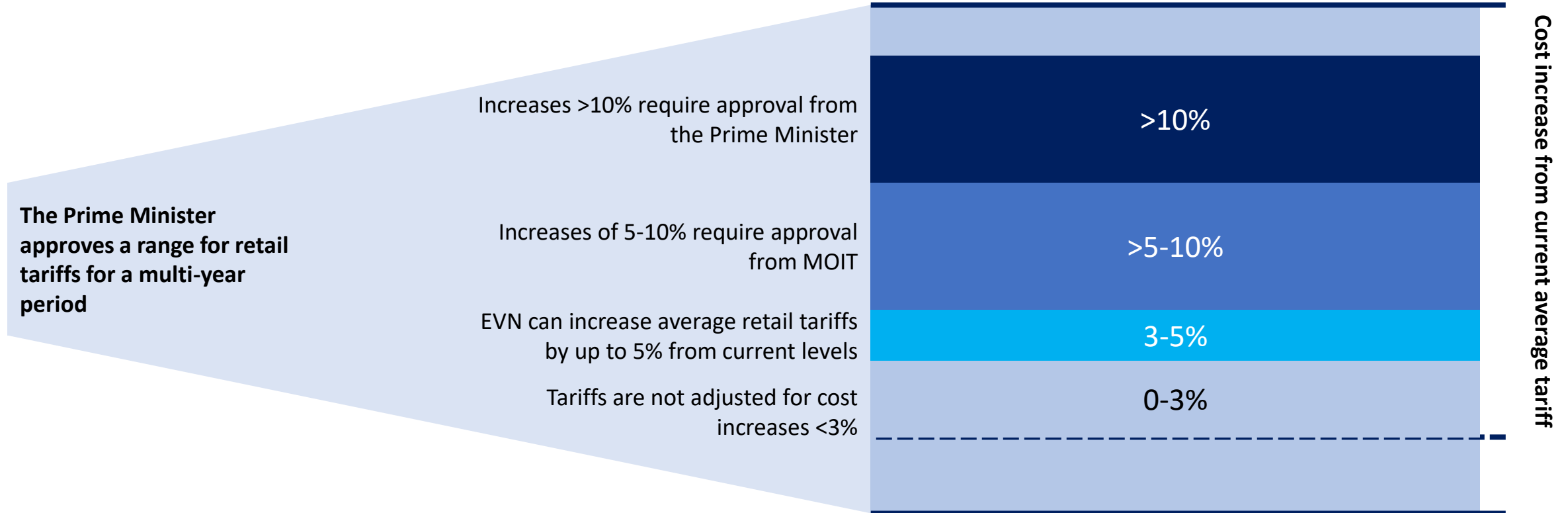


EVN Viet Nam Electricity
 ERAV Electricity Regulatory Authority of Viet Nam (under MOIT)
 MOIT Ministry of Industry and Trade

NLDC National Load Dispatch Centre (subsidiary of EVN)
 NPT National Power Transmission Corporation (subsidiary of EVN)
 EPTC Electric Power Trading Corporation (unit within EVN)
 Power Corporations and Gencos are subsidiaries of EVN

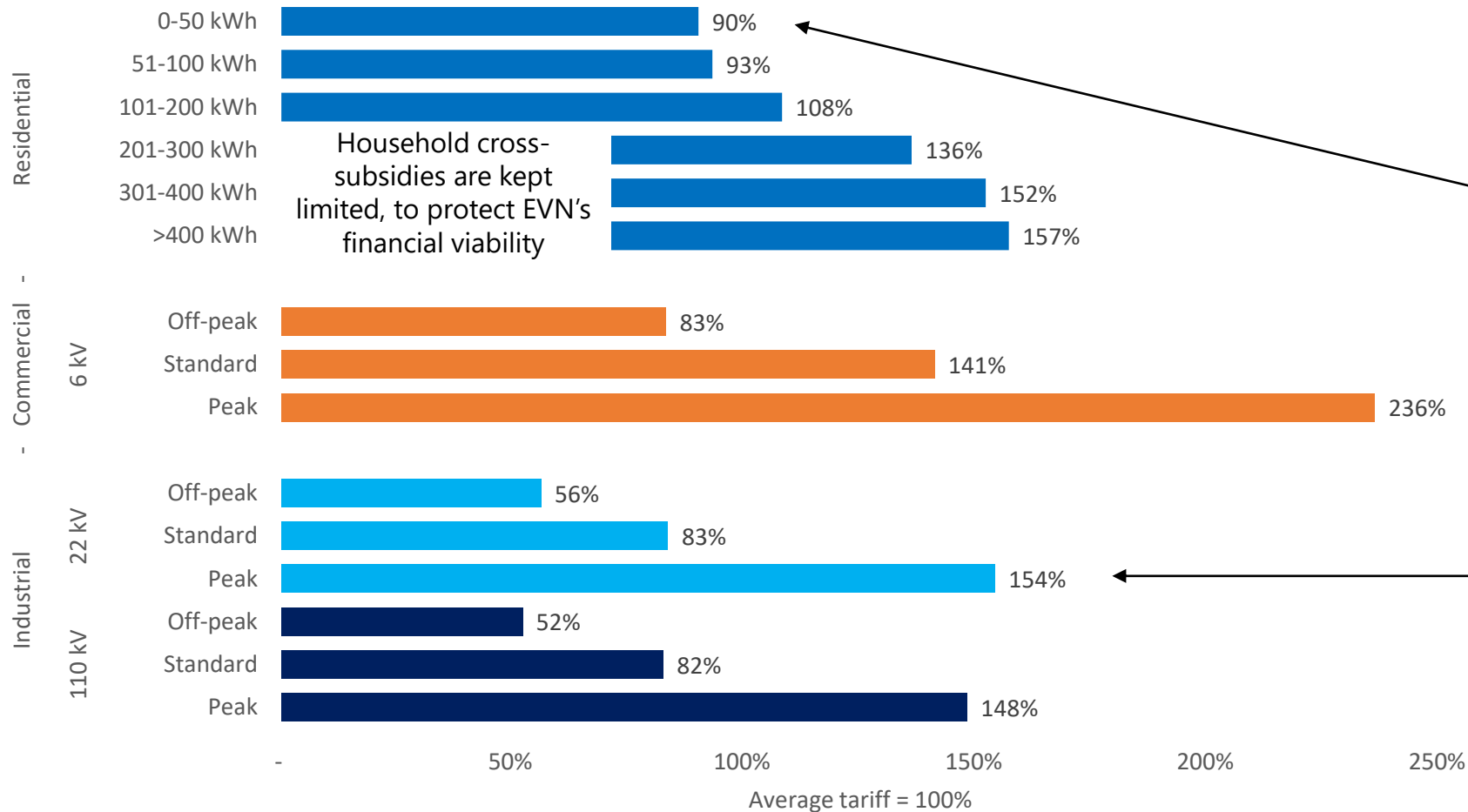
Retail tariff adjustment

The approvals process depends on the size of the adjustment



Tariff structures and affordability

Tariff ratios are set by a PM's Decision. Vulnerable customers receive direct subsidies



Social subsidies

- Households classified as low-income have the first 30 kWh of consumption paid by the commune-level People's Committee
- Households identified as social policy beneficiaries (invalids, war veterans etc.) have the first 30 kWh of consumption paid, if consumption is <50 kWh

Time-of-Use periods

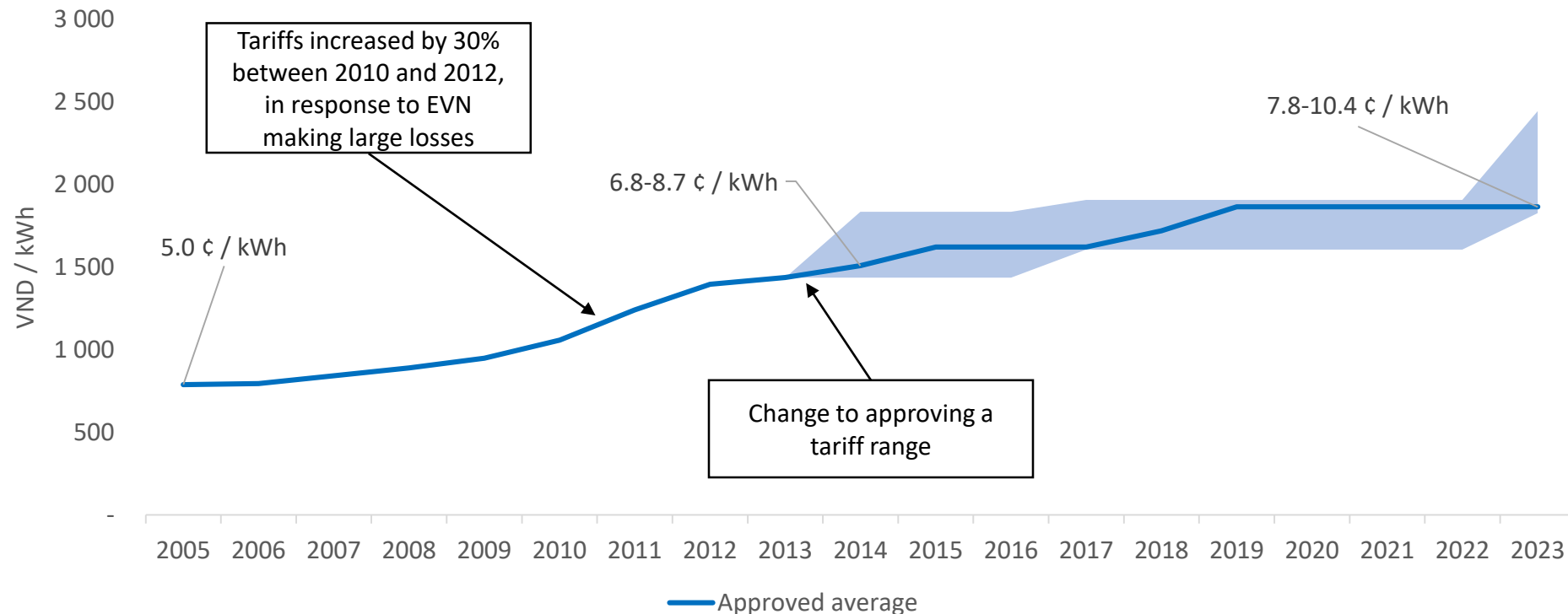
- Peak: Mon-Sat 09h30-11h30 | 17h00-20h00
- Off-Peak: Mon-Sun 22h00-04h00
- Standard: All other times

Source: [EVN](#) (only selected tariffs shown)

Evolution of average tariffs

Since the start of reforms in 2005, tariffs have increased by an annual average of 6%

Approved average tariffs, 2005-23

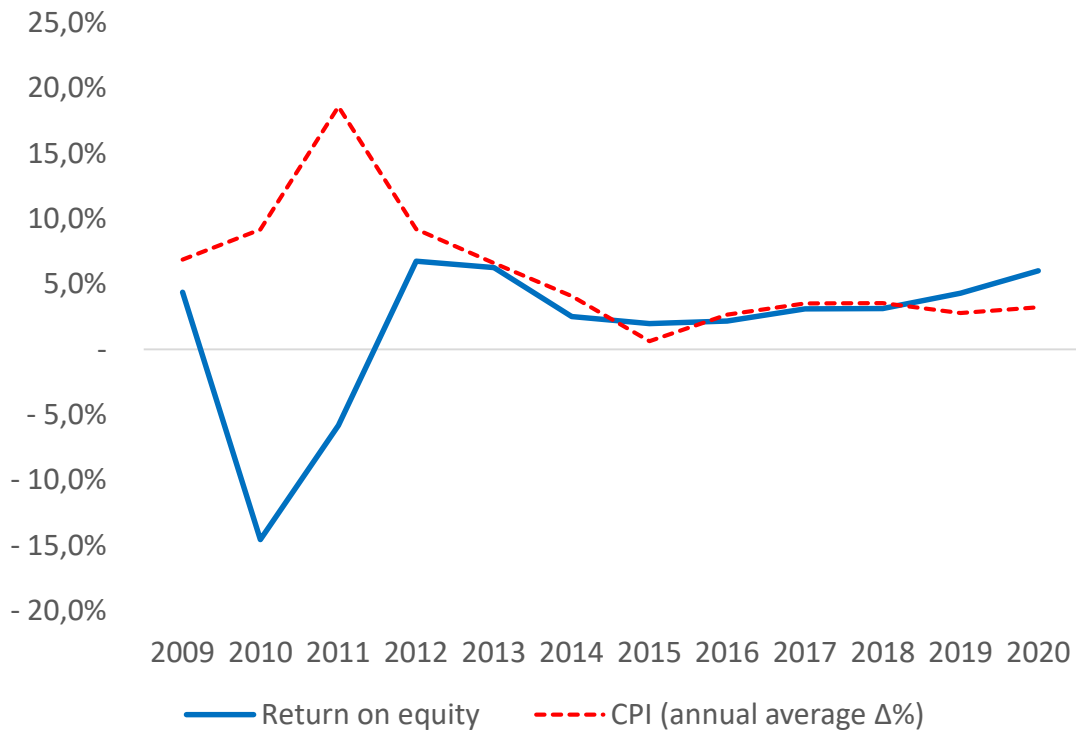


Source: ECA and [Asian Development Bank](#)

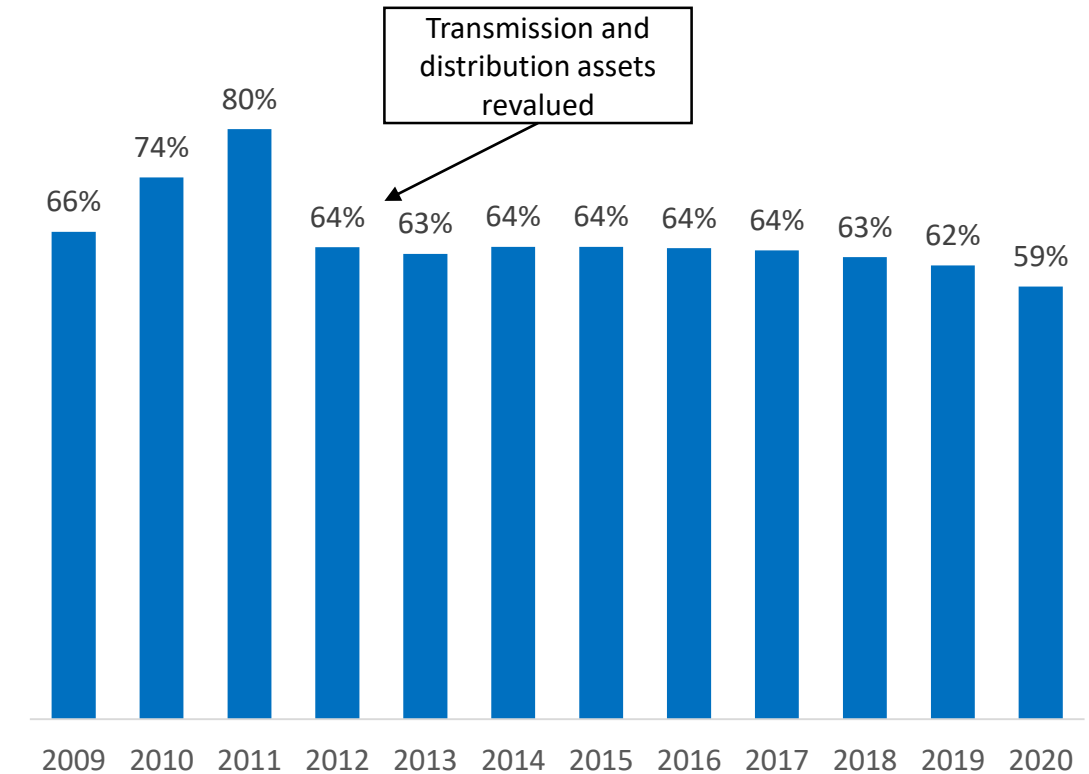
Cost recovery

Since 2012, tariffs recover cash costs and earn a return approximately equal to inflation

EVN's return on equity, 2009-20



EVN's gearing^a, 2009-20

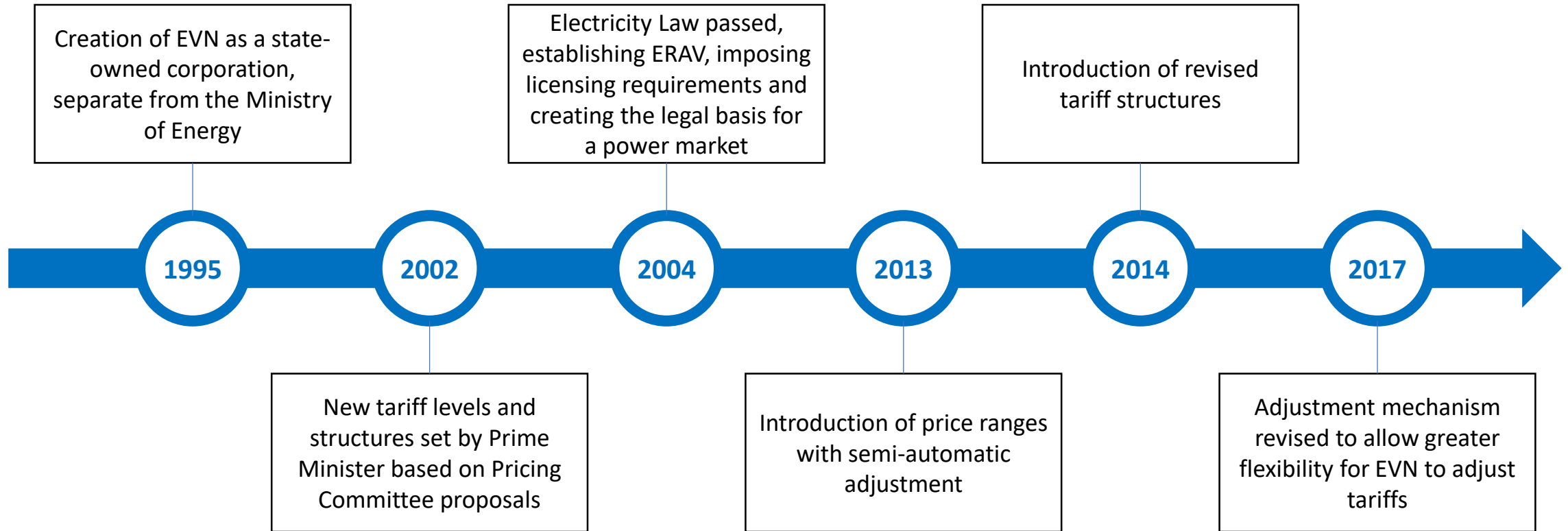


Source: [EVN Annual Reports](#), various years

(a) Gearing calculated as *non-current liabilities / (equity + non-current liabilities)*

Tariff reform process

Reforms have been ongoing, as part of wider sector reforms



Sector reforms

Design and implementation of competitive generation market
 Restructuring of EVN into holding group
 Development of activity-specific tariff methodologies

Results of tariff reform

The reforms have supported a major investment program, but concerns remain

- EVN has been able to finance a tripling of generation capacity over 10 years, from a mix of its own investments and IPPs, alongside expanding the grid (110-500 kV lines increased by 21,000 km or 77% over the period)
- However, ratings agencies remain to be convinced that current tariff mechanisms are adequate to protect EVN's viability in the absence of government backing (directly, through budget funding, and indirectly, through capped fuel prices)
- This reflects the experience in recent years of keeping tariffs unchanged in order to protect affordability and help reduce inflation rates

RATING ACTION COMMENTARY

Fitch Affirms Vietnam Electricity at 'BB'; Outlook Positive

Tue 06 Sep, 2022 - 9:31 AM ET

EVN's ratings reflect its Standalone Credit Profile (SCP), which is at the same level as the Vietnamese sovereign rating (BB/Positive). Under Fitch's Government-Related Entities (GRE) Rating Criteria, EVN's ratings will be equalised to that of the sovereign in the case of any weakening in the SCP, provided the likelihood of support remains intact. The Positive Outlook reflects that of the sovereign.

Sufficient Headroom amid Stable Tariff: The government has decided to keep electricity tariffs stable until end-2022 to aid post-pandemic economic development. The tariff was unchanged during the pandemic before factoring tariff subsidies of VND12,300 billion and VND4,650 billion given to consumers in 2020 and 2021, respectively. We expect EVN's SCP to have reasonable headroom as heavily regulated domestic coal prices and its large hydro share help to regulate generation costs and limit the impact of stable tariffs on its financial profile.

An upward revision of EVN's SCP is contingent on consistent application of electricity regulatory reforms, including a longer record of tariff adjustments that reflect cost changes, while FFO net leverage remains below 5.0x. Without a power tariff increase, EVN's financial profile can deteriorate more rapidly than its peers' because of its reliance on volatile hydropower and high foreign-currency debt. EVN does not hedge foreign-currency risk due to a lack of hedging instruments. The regulatory mechanism also allows the pass through of foreign-exchange fluctuations, subject to timely tariff adjustments.

Source: [Fitch Ratings](#)

Communications

Tariff adjustments are widely discussed in advance and justifications provided

- EVN, the responsible Ministry (MOIT) and the regulatory agency (ERAV) all publish information on EVN's costs and discussions around proposed tariff adjustments
- While there is no formal public consultation process, proposals for significant tariff adjustments are consulted on with a range of ministries and agencies to ensure that the wider socio-economic considerations are assessed

BỘ CÔNG THƯƠNG VIỆT NAM
MINISTRY OF INDUSTRY AND TRADE OF THE SOCIALIST REPUBLIC OF VIETNAM

INTRODUCE - NEWS - LEGISLATION - ONLINE DVC

Home page / News / Energy development

Friday, March 31, 2023 | 18:26

The Ministry of Industry and Trade announced the results of EVN's inspection of electricity production and business costs in 2021 and 2022

Chia sẻ Chia sẻ Read the article

On the afternoon of March 31, the Ministry of Industry and Trade held a press conference to announce the results of the inspection of electricity production and business costs in 2021 and 2022 of Electricity of Vietnam (EVN).

EVN TẬP ĐOÀN ĐIỆN LỰC VIỆT NAM
VIETNAM ELECTRICITY

Introduction Cooperation Information Media EVN and Customers

EVN 's Activities

National Assembly members think that electricity tariff increase should be done now

The Government has requested the Ministry of Industry and Trade to coordinate with relevant agencies to study EVN's proposed plan of developing an electricity tariff increase roadmap, and at the same time carefully perform an impact assessment to ensure that impacts are mitigated to the smallest extent in case of electricity tariff adjustment.

If the electricity is priced too low, national resources shall be sold at low prices inadvertently

At the Government's regular press conference, Mr. Do Thang Hai, Deputy Minister of Industry and Trade said that Vietnam Electricity (EVN) had proposed increasing electricity prices with specific options.

The Government has requested the Ministry of Industry and Trade and other ministries to study EVN's proposed plan. Accordingly, the Ministry will develop a roadmap for electricity tariff increase, taking into account the inflation factors and people's lives.

ERAV BỘ CÔNG THƯƠNG
CỤC ĐIỀU TIẾT ĐIỆN LỰC
ELECTRICITY REGULATORY AUTHORITY OF VIETNAM

INTRODUCE NEWS ELECTRICITY PRICE THE ELECTRONIC MARKET POWER SYSTEM LEGISLATION

Sunday, April 9, 2023 | 10:39 GMT +7

ELECTRICITY PRICE

Minister Nguyen Hong Dien directs the adjustment of electricity prices

February 15, 2023

- What does the Minister of Industry and Trade say about the proposal to increase electricity prices?
- Minister of Industry and Trade works with EVN on electricity price increase

Lessons learnt from the tariff reforms

The key lesson is that of maintaining flexibility and adaptability

1

Reform is not a one-time exercise but an ongoing process

2

A lack of adjustment mechanisms can easily lead to cost increases outpacing tariffs (Viet Nam's experience in 2010)





3

While reform is ongoing and macro-economic conditions are uncertain, having some flexibility in adjustment mechanisms is desirable to avoid undesirable price shocks

4

Ensuring both affordability and social acceptance may require multiple subsidy mechanisms, including both cross-subsidies and direct subsidies

Recommendations

-  Consider adopting a semi-automatic adjustment mechanism, as with Viet Nam, to avoid being locked-in to tariffs that are too low, while also avoiding too rapid an adjustment
-  In earlier stages of reform, consider having large changes in retail tariffs approved at senior level (eg, Prime Minister), and having other agencies involved in their review, in order to improve the consistency with wider socio-economic objectives
-  Balance this by reviewing tariffs for the most critical activities (eg, generation), where investment is vital, through separate (and quicker) routes
-  Ensure effective communication with stakeholders to explain the need for reforms and the measures being taken to mitigate the potential impacts on affordability



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**THANK YOU
FOR YOUR ATTENTION!**

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