



VNX Electricity INDEXES Rules





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VNX Electricity Indexes

Overview



IFRC AND THE EQUITY INDEXES

IFRC is a dynamic company specialized in the design, development and management of new indexes. Officially present in Vietnam in 2010, we aim to approach the Viet Nam stock market by creating a new indexes branch VN stocks called VNX Indexes that supplies to investors a trusting performance measure for this lively emerging stock market.

Like the world's leading groups like Samsung, Mitsubishi, and PetroVietnam with their own equity indexes to give more visibility and transparency on their companies, to measure their market performance, and to propose index products to invest in the stocks of the group, the group Electricity the 4th ranked Vietnamese companies, following the ranking of VNR 500 in 2013, present an indexes family of benchmark and tradable indexes.

The VNX Top 10 Electricity index is constructed and operated in accordance with international standards in order to create based index funds or structured products.

VNX ELECTRICITY INDEXES FAMILY BRINGS TO INVESTORS

- A measure coherent with international standards that reflects Vietnam Electricity Group companies performance
- Information with high transparency about how the index family is designed selected and managed day to day
- Complete index data available for the investors' research
- Tradable indexes that can serve as basis for structured products and other index-linked investment vehicles as response to the development of the Vietnam market

INDEXES OVERVIEW

VNX Electricity Indexes classified into 2 groups:

- **Benchmark indexes** : These indexes track almost the whole Electricity Group, with full market capitalisation (VNX Electricity indexes) or equal weighting (VNX Electricity Equal Weighted index).
- **Blue chips index**: The VNX Top 10 Electricity index is UCITS III compliant and designed following international standard free float capitalisation weighting and to be potential underlying of funds and structured products. Constituents are in the liquidity criteria to make the basket trading easy and cheap. Management costs for users are minimized to the lowest possible by reducing unnecessary changes and concentrating them at the periodical reviews.

For some treatments, specific adjustment will be applied for each group.

The primary indexes are calculated in the Prices and Total Return versions. Each index is available in four currencies: EUR, JPY, USD and VND.

1. VNX ELECTRICITY INDEXES

1.1. VNX Electricity Benchmark

VNX Electricity index is designed in order to have the global performance of the Viet Nam Electricity stocks.

1.2. VNX Electricity Equal Weighted

VNX Electricity equal weighted index measures to performance average all all stocks of the sector without differencing the company size.

1.3. VNX Top 10 Electricity

Blue Chips are created respecting all the necessary international standards in purpose to be served as underlying instrument for the derivatives and other structured products, as :

- Stocks are weighted according to their free float market capitalization with a maximum weight of 15% per stock.
- Stability measure in index composition review – Rule of 10%
- Stability measure in share review – While the share number is reviewed quarterly, Share change can be effective immediately in daily calculation only when the share variation is superior to 10%

2. GOVERNANCE AND DISCLAIMER

2.1. Rulebook

The VNX Electricity Indexes are rules based indexes completely.

2.2. Liability

The information contained in this document is given without warranty, implying no obligation of any kind on the part of IFRC Indexes and may be changed by IFRC Indexes at any time without further notice. IFRC Indexes accepts no liability for any loss resulting from supplementing, amending, revising or withdrawing from the Rules.

Although it is in the responsibility of IFRC Indexes to maintain the VNX Electricity Indexes in the accuracy, IFRC Indexes accepts no liability for any loss resulting from any inaccuracy in calculation, publication of the index, information on which the indexes adjustment and periodic review are based.

2.3. Announcement Policy

Changes to the index resulting from periodical review and extra correction due to extraordinary event will be normally distributed via email and/or the website of VNX Electricity Indexes two to five days before the effective date.

The daily corporate action treatment of which rules are fixed in the document requires no further public announcement. Exceptional treatment cases will be, however, publicly informed via email and / or the website of IFRC Indexes.

3. INDEX CALCULATION

3.1. Formula

Price indexes

The Price index (PI) level formula is used to calculate real-time index levels:

$$PI_t = BASE * \frac{[\sum_{i=1}^n N_{it} F_{it} k_{it} M_i X_{it} P_{it}]}{CAPI_0 * K_t}$$

where

- BASE Base value of the index at the start date (or base date)
- n Number of instruments composing the index
- N_{it} Number of outstanding shares of an instrument in the sample
- F_{it} Free float of an instrument in the sample
- k_{it} Capping factor applied to the instrument
- M_i Price Multiplication ($M = 1$ as the expression is in 1 VND)
- P_{it} Last Traded Price of an instrument in the sample (if there is no trade for the current day, it is replaced by the last traded price of the previous days, eventually adjusted by corporate events)
- X_{it} Currency rate to convert the dividend into the index currency
- $CAPI_0$ Base capitalization (Capitalization of the index at the base date)
- K_t Adjustment factor on the index

For convenience, the index level could be expressed by a simpler formula:

$$PI_t = BASE * \frac{CAPI_t}{DIVISOR_t}$$

Where

$$CAPI_t = \sum_{i=1}^n N_{it} F_{it} k_{it} M_i X_{it} P_{it}$$

$$DIVISOR_t = CAPI_0 * K_t$$

Total return indexes

The Total Return index (TRI) formula is used to calculate the return on equity indexes, and provides the profitability of the index.

$$TRI_t = \frac{TRI_{d-1}}{PI_{d-1}} \times \left(PI_t + BASE \frac{GD_t}{DIVISOR_t} \right)$$

Where

- TRI_t Total Return Index at time t
- TRI_{d-1} Total Return Index at the close of the previous day
- PI_t Price Index level, at time t
- PI_{d-1} Index level at the close of the previous day
- $DIVISOR_d$ Divisor of the index of the day
- BASE Base value of the index
- GD_d Gross Dividend capitalization of the index of the day

The base date is defined as the date that the index is created. Starting point of the index at the base date is called base level.

- The base date of all VNX Electricity Indexes is 31/12/2008
- The base level of all VNX Electricity Indexes is 1,000

3.2. Factors

Number of shares

Outstanding shares are used in the weighting of the VNX Electricity Indexes .

Price

In calculating the index, the last traded price is taken into account. If no price has been traded on the day of calculation, the previous day's price is used (eventually adjusted by the corporate events).

Free-Float

Free-Float concerns only **VNX Top 10 Electricity index**.

The free float factor is the percentage of shares remaining after the block ownership and restricted shares adjustments have been applied to the total number of shares. The final free float factor will be rounded up to the nearest 10% at the periodical review.

Block ownership and restricted shares adjustment are applied if blocks or shares account for at least 5% of a company's total stock.

Blocks are held in:

- Company ownership: stock owned either by the company itself, in the form of treasury shares, or owned by other companies.
- Government ownership: stock owned by either governments or their agencies.
- Private ownership: stock owned by individuals, directors/founders or families.

Restricted shares are those that cannot be traded during a certain period or those that have a foreign ownership restriction.

For clarification, shares hold by mutual funds, investment companies with short-term investment strategies and pension funds are considered as free float, irrespective of the size.

Example for free float calculations

- Company X has the following shareholders:
- Vietnam Government: 15% (non free-float)
- Family Members: 9% (non free-float)
- Vietnam company A: 4% (free-float)
- Foreign company B: 15% (non free-float)
- Foreign company C: 4% (free-float)
- Foreign investment limit: 49%

Calculation

- Sum of non free float as definition: $15\%+9\%+15\% = 39\%$
- Free-float: $100\%-39\% = 61\%$
- Final Free-float = Min (Free-float, Foreign investment limit) = Min (61%, 49%) = 49%
- Rounding Free-float = 50%

Currency rates

All VNX Electricity Indexes are calculated with the stock price in VND, and converted to three other common currencies: EUR, USD and JPY.

The currency conversion is based on the foreign exchange reference rates as published daily by REUTERS/BLOOMBERG.

Weighting

- **VNX Electricity Benchmark Index:** Full Market capitalization weighting (free float and capping factors are set to 100%).
- **VNX Electricity Equal Weighted Index:** equal weighting.
- **VNX Top 10 Electricity Index:** Capped Free-float market capitalization weighting.

Capping

Capping concerns only **VNX Top 10 Electricity Index**.

The maximum weight of each constituent in indexes is capped at 15% to respect the UCITS III Directives. At the quarterly capping review, if any constituent weighting that is higher than 15%, a capping factor is then calculated and applied to reduce it to 15%. Several calculation steps could be necessary to have all constituents' weight inferior or equal to 15%.

Dividend treatment

Dividend payments are included in the appropriate indices as gross dividends (see Indexes formula and Corporate actions).

Calculation interval and publication

For the first period (End of day), all VNX Electricity Indexes are calculated and published daily. IFRC Indexes plans to calculate VNX Electricity Indexes in real time in the next step. Index history (from 31 December 2008) and daily level are available on IFRC indexes website: www.ifrcindex.com (or on www.ifrcindex.com.vn)

4. INDEX REVIEW

4.1. Composition

The composition is reviewed every semester at the 3rd Friday of March, September.

In order to increase stability for **VNX Top 10 Electricity Index** composition, stability rule of 10% is applied in the composition review:

A company already in **VNX Top 10 Electricity Index** falls below the 8th position in the ranking list will be moved out of the index and replaced by a new company ranked the highest. Also, a new company is selected in the index if only it rises above the 12th in the ranking list to replace the company that ranks the lowest.

The selection is based on the market figures over the last 12 months ending, the last trading day of previous month of the review. For example, for the March review, statistics are calculated over the period from March of the previous year to February of the current year.

The decision of the IFRC Indexes is published at least 2 days before the changes effective date.

4.2. Number of shares

The number of shares in all **VNX Electricity Indexes** is only updated once a quarter (at the quarterly review), except special circumstances:

In the case the change of the number of shares is higher than 10% in absolute value, the number of shares will be effective immediately with in principle 2 days of pre-announcement by IFRC indexes.

The effective date is the 3rd Friday of March, June, September and December, after the market close.

The review information is published in principle 5 days before the changes effective date.

4.3. Free float

The free float adjustment concerns VNX Top 10 Electricity Index.

The free-float is reviewed semesterly.

The free-float calculation is based on the available and public information at the end of February, and August. The effective date is the 3rd Friday of March, and September. The review information is published in principle 5 days before the changes effective date.

In the case the change of the free float rate is higher than 10% in absolute value; the new free float will be effective immediately with at least 2 days of pre-announcement by the IFRC indexes.

4.4. Capping factor

The capping factor adjustment concerns VNX Top 10 Electricity and VNX Electricity Equal Weighted Indexes.

Capping factor is used to limit the maximum weight of a company in the Blue Chips index or to modify the weighting of the company in the Equal Weighted index to follow the target weighting

The capping factor is reviewed semesterly of the cycle March and September review barring exceptional circumstances.

The effective date is the 3rd Friday of the review quarter. At the close of the 3rd Friday of the review, the capping factor is calculated and based on the last traded prices of constituents and published immediately for the index adjustment.

In the case the change of the weight is higher than 2% in absolute value or when index turnover is higher than 10%, the capping will be reviewed and effective immediately for the next trading date.

5. INDEX ADJUSTMENTS

The following section shows how the price is adjusted following the corporate actions type.

Assume

- Y is new received shared for every X hold share
- DIV is the dividend announced by the company
- CL is the closing price

5.1. Regular Cash dividend

While regular cash dividend is not taken account of in Price index, it is fully taken account of in Total return index.

- | | |
|------------------|-----------|
| • Adjusted price | Unchanged |
| • Adjusted share | Unchanged |
| • Divisor | Unchanged |

5.2. Special (or Extraordinary) cash dividend

Special cash dividend is determined as any cash dividend distributed out of usual dividend policy. Special cash dividend is taken account either in Price index or Total return index

- Adjusted price $CL - DIV * (1 - \text{withholding tax if applicable})$
- Adjusted share Unchanged
- Divisor Decreases

5.3. Split

In a split event, company increases the number of outstanding shares. Share price decreases in the same proportion in order to maintain the same market capitalization.

- Adjusted price $CL * X/Y$
- Adjusted share Old number of shares $* Y/X$
- Divisor Unchanged

5.4. Stock Dividend

Shareholder receives payment of company dividend in the form of stock.

- Adjusted price $CL * X / (X + Y)$
- Adjusted share Old number of shares $* (X + Y) / X$
- Divisor Unchanged

5.5. Stock Dividend (from treasury)

Company distributes treasury stock to shareholders as stock dividend.

- Adjusted price $CL - CL * Y / (X + Y)$
- Adjusted share Unchanged
- Divisor Decreases

5.6. Stock Dividend (of another company)

- Adjusted price $(CL * X - \text{price of the other company} * Y) / X$
- Adjusted share Unchanged
- Divisor Decreases

5.7. Right issue

Shareholder purchases additional share at a discount to market price.

Out-of-the-money: If the subscription price \geq the stock closing price on the day before the ex-date, the rights offering is out-of-the-money, there's no adjustment on both price and shares for all VNX Index.

In-the-money: If the rights price $<$ the stock closing price on the day before the ex-date, then the rights offering is in-the-money. Shares and price are adjusted as following:

- Adjusted price $(CL * X + (\text{Subscription price} + DIV) * Y) / (X + Y)$
- Adjusted share Old number of shares $* (X + Y) / X$
- Divisor Increases

For the effective date of the new share number:

- Blue Chips indexes The effective date is the ex-date
- Other indexes The effective date is the issue date of new shares

5.8. Return of capital

- Adjusted price $[\text{CL} - \text{capital return announced by company}] * (1 - \text{withholding tax}) * X / Y$
- Adjusted share $\text{Old number of shares} * Y / X$
- Divisor Decreases

5.9. Share repurchase

- Adjusted price $[(\text{Price before tender} * \text{old number of shares}) - (\text{tender price} * \text{number of tendered shares})] / (\text{old number of shares} - \text{number of tendered shares})$
- Adjusted share $\text{Old number of shares} - \text{number of tendered shares}$
- Divisor Decreases

5.10. Spin – off

- Adjusted price $(\text{CL} * X - \text{price of spin-off shares } Y) / X$
- Adjusted share Unchanged
- Divisor Decreases

5.11. Combination of stock distribution and rights offerings

- Adjusted price $[\text{CL} * X + \text{subscription price} * Z] / [X + Y + Z]$
- Adjusted share $\text{Old number of shares} * [X + Y + Z] / X$
- Divisor Increases

5.12. Exceptional treatment

IFRC Indexes reserves the right in certain appropriate cases to diverge from those treatments described from point 8.1 to point 8.12.

Any treatment classified as exceptional treatments will be announced publicly via email and/or the website of VNX Electricity Indexes as soon as possible.

6. CHANGES TO CONSTITUENTS

6.1. Replacements

VNX Top 10 Electricity index

- In the case that a constituent of the index is deleted: there will be no further stock selected in order to maintain the fixed number of stocks in the index.
- Constituent number stays unchanged until the next periodical composition review. The deletion will be announced at least two days before the effective date.

Other indexes

- The constituent is removed from the index. There is no additional action.

6.2. Suspension

VNX Top 10 Electricity index

- The Index Committee can remove a stock that is suspended from trading. In this case, the stock is removed at the suspension price.
- The removed stock can be reintroduced in the index composition as soon as the suspension is taken off. The event will be announced at least two days before the effective date.

Other indexes

- Not applicable.

6.3. Mergers, Restructuring and Acquisitions

VNX Top 10 Electricity index

- When a constituent of this index is affected by an operation of mergers/restructuring or acquisition, the surviving stock or non-surviving stock that does not qualify for this index will be deleted immediately.
- A surviving stock that qualifies for this index is added to the indices as a replacement for the original stock. The event will be announced at least two days before the effective date.

Other indexes

- Not applicable.

6.4. New issues

VNX Top 10 Electricity index

- The integration of a new listed stock to the index depends on the decision of the VNX Electricity Indexes Committee in function of the size and the expected liquidity of the stock following the Fast Entry Rules.
- In the case of new adding, the decision will take effect two weeks after the announcement.

Other indexes

- New IPO will be introduced automatically in the concerned indexes (market or sector indexes) in the next day following the first trading day.

6.5. Spin- offs

VNX Top 10 Electricity index

- All spin-off stock will automatically be added to the index composition for one day trading. If the spin-off stock does not qualify the eligible criteria, it will be deleted from the index composition after the first trading day.
- The event will be announced at least two days before the effective date.

Other indexes

- Not applicable.

6.6. Split-up

VNX Top 10 Electricity index

- All new stocks issued from split-up operation will automatically be added to the index composition for one day trading. If the spin-off stock does not qualify the eligible criteria, it will be deleted from the index composition after the first trading day.
- The event will be announced at least two days before the effective date.

Other indexes

- Not applicable.

6.7. Sector Changes

The indices are updated with the sector changes. The event will be announced at least two days before the effective date.

7. CONTACT

- Further information concerning the **VNX Electricity Indexes** is available at
 - www.vnxindex.com/electricity.ind
 - www.ifrcindex.com
- Enquiry may be addressed to:
 - contact@ifrc.fr

8. CODES

8.1. Price indexes

INDEX	CODE	VND	USD	EUR	JPY
BENCHMARK					
VNX ELECTRICITY	VNXGEL	VNXGELPRVND	VNXGELPRUSD	VNXGELPREUR	VNXGELPRJPY
VNX ELECTRICITY EQUAL WEIGHTED	VNXGELE	VNXGELEPRVND	VNXGELEPRUSD	VNXGELEPREUR	VNXGELEPRJPY
TRADABLE					
VNX TOP 10 ELECTRICITY	VNXGELT	VNXGELTPRVND	VNXGELTPRUSD	VNXGELTPREUR	VNXGELTPRJPY

8.2. Total Return indexes

INDEX	CODE	VND	USD	EUR	JPY
BENCHMARK					
VNX ELECTRICITY	VNXGEL	VNXGELTRVND	VNXGELTRUSD	VNXGELTREUR	VNXGELTRJPY
VNX ELECTRICITY EQUAL WEIGHTED	VNXGELE	VNXGELETRVND	VNXGELETRUSD	VNXGELETREUR	VNXGELETRJPY
TRADABLE					
VNX TOP 10 ELECTRICITY	VNXGELT	VNXGELTTRVND	VNXGELTTRUSD	VNXGELTTREUR	VNXGELTTRJPY

VNX ELECTRICITY INDEXES RULES

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