

PART 2: (DRAFT) CRITERIA FOR DETERMINING UTILITY GREEN TARIFF

1. CRITERIA FOR DETERMINING UTILITY GREEN TARIFF WITH UNSPECIFIED SOURCES (UGT1)

1.1 Define UGT1 as an electricity tariff pursuant to the notification of the normal electricity tariff structure, including the electricity tariff according to the automatic tariff adjustment formula (F_t), plus a "Premium," which consists of two parts—one for the cost of Renewable Energy Certificate (REC) of the existing state-owned power plants in the system (P_{REC}) and the other for the administrative cost (P_A).

UGT1 = Normal electricity bill (including F_t) + Premium

Premium (P) = REC Market Price (P_{REC}) + Administrative cost (P_A)

P_{REC} = Market price of REC

P_A = Administrative cost and operating remuneration of each Power Utility relating to REC

1.2 Terms of Service

1.2.1 A power consumer who wants to use the UGT service can choose to receive the service in blocks of which the size is specified by the service provider under the Electricity Supply Agreement (ESA) between the power consumer and the Power Utility that is his service provider, e.g. 100 kWh per block, or choose to use renewable electricity at the amount equal to his electricity consumption each month (100%).

1.2.2 Application for the UGT service and the service duration will be as defined in the ESA.

1.2.3 Green electricity service providers will deliver electricity together with REC to users of this form of UGT according to the amount they apply for service each month, but must not exceed the amount of electricity consumed each month. The applicant will not be able to choose the proportion of each type of renewable energy or specify the source of renewable energy generation.

1.3 The Premium is considered as income under regulation and the Premium configuration shall be reviewed to reflect actual costs and efficient operations as well as to promote renewable energy use, at the end of the calendar year to be applied in the following year.



2. CRITERIA FOR DETERMINING UTILITY GREEN TARIFF WITH SPECIFIED SOURCES (UGT2)

2.1 Define the UGT2 structure at the wholesale level as not being a time-of-use tariff, consisting of (1) Fixed Rate, i.e. Generation Charge (G), Transmission Charge (T) and Administrative Charge at the wholesale level (A_W); and (2) Variable Rate, i.e. Policy Expense at the wholesale level (PE_W) and Adjustment Factor at the wholesale level (AF_W), which are adjustments to the G values of each portfolio at the wholesale level (AF_W).

$$\text{UGT2 (Wholesale)} = \text{Fixed Rate (Wholesale)} + \text{Variable Rate (Wholesale)}$$

$$\text{Fixed Rate (Wholesale): } F_W = G + T + A_W$$

$$\text{Variable Rate (Wholesale): } V_W = PE_W + AF_W$$

Where:

- G Generation Charge is determined by (1) the costs of electricity and REC procured from renewable power plants in each portfolio, taking into account the transmission loss, which is determined by the targeted loss rate for the transmission system (t); and (2) the cost of capacity and energy that the power system has to provide in order to support reliable green energy delivery to the customers.
- T Transmission Charge is determined by the allowed revenue of the transmission system business, referring to transmission charges in the wholesale electricity tariff structure, which is reviewed periodically according to the regulatory period of the base tariff structure.
- A_W Administrative Charge (Wholesale) is determined by wholesale costs of different portfolio administration and management fee, which is reviewed periodically according to the regulatory period of the base tariff structure.
- PE_W Policy Expense (Wholesale) is determined by expenses arising from implementation of government policies at the wholesale level, which is adjusted every 4 months according to the F_t adjustment round.
- AF_W Adjustment Factor (Wholesale) is determined by the difference between the actual green energy purchase cost, plus the cost of capacity & energy services from the power system for each portfolio; and the pre-determined costs of G at the wholesale level, which is adjusted every 4 months according to the F_t adjustment round.

2.2 Define the UGT2 structure at the retail level as not being a time-of-use tariff, consisting of (1) Fixed Rate, i.e. the costs of procuring energy in relation to Fixed Rate (Wholesale), Distribution Charge (D) and Administrative Charge at the retail level (A_R); and (2) Variable Rate, i.e. Policy Expense at the retail level (PE_R) and Adjustment Factor at the retail level (AF_R), which are adjustments to the G values of each portfolio at the retail level (AF_R).

$$\text{UGT2 (Retail)} = \text{Fixed Rate (Retail)} + \text{Variable Rate (Retail)}$$



$$\text{Fixed Rate (Retail); } F_R = F_W(1+d) + D + A_R$$

$$\text{Variable Rate (Retail); } V_R = V_W(1+d) + PE_R + AF_R$$

Where:

- d Distribution Loss Rate is determined by the targeted loss rate for the distribution system
- D Distribution Charge is determined by the allowed revenue of the distribution system business, referring to distribution system charges in the retail electricity tariff structure, which is reviewed periodically according to the regulatory period of the base tariff structure.
- A_R Administrative Charge (Retail) is determined by the costs of providing retail services, including the costs of different portfolio administration at the retail level and operating remuneration, which is reviewed periodically according to the regulatory period of the base tariff structure.
- PE_R Policy Expense (Retail) is determined by expenses arising from implementation of government policies at the retail level, which is adjusted every 4 months according to the F_t adjustment period.
- AF_R Adjustment Factor (Retail) is determined by the difference between the actual green energy purchase cost, plus the cost of capacity & energy services from the power system for each portfolio at the retail level, and the pre-determined costs of G, which is adjusted every 4 months according to F_t adjustment period.

In this connection, the same conditions of Power Factor charges in the wholesale and retail electricity tariff structures also apply to UGT2.

2.3 Terms of Service

2.3.1 UGT2 is an optional tariff for Large General Service (Category 4) and Specific Business Service (Category 5) customers with a maximum 15-minute integrated capacity demand from 1,000 kW up, or with the average energy consumption in the last 3 consecutive months of over 250,000 kWh per month.

2.3.2 Subscription for service duration is 10-25 years and subject to conditions as specified in the Electricity Supply Agreement (ESA).

2.3.3 The green energy providers will deliver electricity with REC to the subscribed customers according to the conditions specified in the ESA.

2.3.4 The Utilities' revenues from UGT2 are regulated revenues.

3. UTILITY GREEN TARIFF PROPOSAL

3.1 The Electricity Generation Authority of Thailand (EGAT) shall be the responsible entity to propose the UGT1 rate, including the wholesale Premium for UGT1 and the Fixed Rate (Wholesale) for each portfolio under UGT2 at the initial stage and for each period of the base tariff structure review, and to propose the UGT2 rate in the part of the Variable Rate (Wholesale) for each portfolio at the initial stage and every 4 months according to the F_t adjustment period. The proposals have to contain all of the assumptions, information and calculation details, including the draft Wholesale Electricity Supply Agreements (Wholesale ESA).

3.2 The Metropolitan Electricity Authority (MEA) and the Provincial Electricity Authority (PEA) shall be the responsible entities to submit proposals on the retail Premium for UGT1, and the UGT2 rates, including the Fixed Rate (Retail) for each portfolio at the initial stage and for each period of the base tariff structure review, and the Variable Rate (Retail) at the initial stage and every 4 months according to the F_t adjustment period. The proposals have to contain all of the assumptions, information and calculation details, including the draft Retail Electricity Supply Agreements (Retail ESA).
