

Explanatory note

Calculation of the individual subscriptions for

Associates (States and Economies) of the General Conference on Weights and Measures (CGPM)

and other adjustments that may appear on the annual Notification to Associates

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Executive Summary

Towards the end of each calendar year the International Bureau of Weights and Measures (BIPM) sends out the statutory [Notification](#)¹ to Member States* and Associate States and Economies of the General Conference on Weights and Measures (CGPM). The *Notification* informs Member States of their contributions and Associate States and Economies of the CGPM of their subscriptions due for the following year. This document explains in detail how the subscriptions are calculated for Associate States and Economies of the CGPM. A companion document “Calculation of the individual contributions to the BIPM dotation for Member States” explains how the contributions are calculated for Member States.

Establishing the subscriptions requested from Associate States and Economies of the CGPM involves three main steps:

1. [Establishing the BIPM “dotation”](#), that is the total sum paid to the BIPM by the Member States for each year of the forthcoming period.
2. [Calculating the individual subscription for Associates](#), which is based on the partitioning in the UN Scale (*Scale of assessments for the apportionment of the expenses of the United Nations*), adjusted as for Member States, but with a lower minimum (one fifth of that for Member States). Additionally those Associate States of the CGPM having a percentage higher than 0.02 on the UN Scale that have been associated for at least 5 years, meet defined criteria, and that have been formally encouraged to become Member States are subject an additional adjustment increasing their subscription.
3. [Application of adjustments](#) (if any) arising from retrospective scale changes.

* The official term is “State Parties to the Metre Convention”; the term “Member States” is its synonym and used for easy reference.

¹ Full French title: “*Notification des parts contributives dues par les gouvernements des hautes parties contractantes pour l’entretien du Bureau international des poids et mesures et des souscriptions des États et Entités économiques associés à la Conférence générale*”

English translation: “*Notification of the Contributive Parts due by Governments of the High Contracting Parties for the maintenance of the Bureau International des Poids et Mesures and of Subscriptions due by Associate States or Economies of the CGPM*”.

1. Establishing the BIPM “dotation”

The BIPM dotation is adopted by Resolution voted at each meeting of the CGPM. The dotation is set to correspond to the activities proposed and agreed for the forthcoming BIPM Work Programme (taking into account income from others sources such as the subscriptions from Associates of the CGPM, other minor incomes etc.). The dotation covers the next period, usually a four-year period which is sometimes referred to as a quadrennium². The dotation takes effect as from January of the second year after the meeting of the CGPM at which it was adopted.

A new BIPM Work Programme 2020 - 2023 and corresponding dotation was adopted by the CGPM in November 2018 ([Resolution 4](#)), and took effect from January 2020.

2. Calculating the individual Subscription for Associates of the CGPM

The starting point for the calculation of the individual subscriptions is the percentages in the “*Scale of assessments for the apportionment of the expenses of the United Nations*”, which is adopted by Resolution of the UN General Assembly and published by the UN. This scale is revised every three years (though it is usually not available until after the start of the applicable three-year period).

The period covered by the current UN Scale is 2019 to 2021, and it is available online: [“73/271 Scale of assessments for the apportionment of the expenses of the United Nations”](#).

Having established the individual percentages allocated in the UN Scale (for states that are Associate States of the CGPM) further sub steps need to be considered to arrive at the BIPM coefficients. These coefficients are then applied to the BIPM dotation to arrive at the individual subscriptions.

[Resolution 3](#) adopted by the CGPM at its 21st meeting (1999) which established the status of Associate States and Economies of the CGPM states that “... *the annual subscription of each Associate State or Economy will be determined from its UN contribution, as for Member States...*”. Consequently, the multiplication factor applied to the UN Scale to arrive at the BIPM coefficient for Member State contributions is also applied to the calculation of Associate subscriptions. The factor takes account of the differing membership compared with the UN and contribution maximums and minimums set by the CGPM. A detailed description of the methodology for establishing this multiplication factor is included in the companion paper “Calculation of the individual contributions to the BIPM dotation for Member States”.

Subscriptions are subject to a minimum which was established in 1999 (set at that time at 0.05% of the BIPM dotation). In 2011 the CGPM at its 24th meeting reflected on the growing participation of Associate States of the CGPM, and the benefits for the participants and costs to the BIPM. The CGPM adopted [Resolution 4](#) (2011) “On the status of Associate States of the General Conference” which

² In 2014 the BIPM Work Programme and corresponding dotation was adopted for 2016-2019, and in 2018 the BIPM Work Programme and corresponding dotation was adopted for 2020 – 2023, *i.e.* in each case a four-year period.

raised the minimum subscription for Associate States from one tenth of the minimum contribution for a Member State to one fifth of the minimum contribution for a Member State.

[Resolution 4](#) (2011) increased the minimum subscription for Associate States of the CGPM from 0.05% to 0.1% of the BIPM dotation. The new minimum took immediate effect for new Associate States, and applied from 1st January 2013 for states that were Associates at the time of the 24th meeting of the CGPM.

Associate status established by [Resolution 3](#) (1999) was as an introductory status for states that would become Member States at a future point. [Resolution 4](#) (2011) formalised the process of encouraging those Associate States of the CGPM who had been Associates for at least five years and whose metrology systems were sufficiently developed to accede to the Metre Convention and become Member States.

Resolution 4 (2011), taking into account the decisions made by the CIPM at its 98th (2009) and 99th (2010) sessions, introduced the following criteria enabling the CIPM to review whether it would be appropriate for an Associate State of the CGPM to accede to the Metre Convention and thus to be encouraged to become a Member State:

- Signature of the CIPM MRA by the Associate State's National Metrology Institute,
- Publication of comparison results in the key comparison database (KCDB),
- Having one or more Calibration and Measurement Capabilities (CMC) listed in the KCDB.

The CIPM considers, on the basis of the criteria whether such a state should be encouraged to accede. If the CIPM so decides, it instructs the BIPM to convey its decision to the Associate State of the CGPM to encourage its accession to the Metre Convention. However if the state chooses to remain an Associate, the amount of subscription for such an Associate State will be progressively and irreversibly increased each year in five annual steps (on the so-called '*escalator*') until it is equal to 90% of the amount that Associate State would pay in contribution as a Member State.

This progressive and irreversible increase is applicable starting on the 1st January of the second year following the CIPM decision to encourage an Associate State of the CGPM to accede to the Metre Convention and become a Member State (to ensure a minimum one year '*period of grace*').

As long as an Associate State of the CGPM does not fulfil the criteria, it will continue to benefit from the advantages of the Associate status, as provided for in [Resolution 3](#) (1999), and from the BIPM services that the CIPM made available to them, and its subscription will continue to be determined as during the initial 5-year period.

After a number of years of operation, and with increasingly 'smaller' States becoming Associates, who would have difficulty in allocating funds sufficient to meet the cost of participation, the CIPM decided (CIPM/106-20) in October 2017 to amend the criteria it had set for deciding when an Associate State should be encouraged to accede, and which triggered the '*escalator*' for those

who chose not to do so. The effect of this decision was to exempt those Associate States with a UN percentage of 0.02 or less from the escalator.

Decision CIPM/106-20

The CIPM decided that when considering whether it is appropriate for an Associate State of the General Conference on Weights and Measures (CGPM) to be encouraged to accede to the Metre Convention and hence become a Member State, it will take into account whether it has:

- been an Associate State of the CGPM for at least 5 years,
- a National Metrology Institute (NMI) that has signed the CIPM MRA,
- published comparison results in the key comparison database (KCDB),
- one or more Calibration and Measurement Capability (CMC) listed in the KCDB,
- a percentage higher than 0.02 on the "Scale of assessments for the apportionment of the expenses of the United Nations".

The above criteria will be applied in the implementation of Resolution 4 of the CGPM (2011) *"On the status of Associate State of the General Conference"*.

This decision revises the criteria adopted by the CIPM at its 98th (2009) and 99th (2010) meetings.

The above notwithstanding, the CIPM reaffirmed that an Associate State of the CGPM may choose to accede to the Metre Convention and become a Member State at any time should it so wish.

When the decision was taken, some States with a percentage less than 0.02 were already on the escalator. In addition, a subset of these Associate States who were paying enhanced subscriptions had already fallen in arrears and risked exclusion. The CIPM took two further decisions CIPM/106-21 and CIPM/106-22 to address their specific situations.

Decision CIPM/106-21

The CIPM decided that an Associate State of the CGPM that does not meet the criteria set in Decision CIPM/106-20 and that has already been encouraged to accede to the Metre Convention, and as a result is paying an increased subscription, shall have its subscription reduced to the minimum for an Associate State. The reduction will come into force in 2018 and will not be retroactive.

Decision CIPM/106-22

The CIPM asked the BIPM to work with any Associate State included in Decision CIPM/106-21 and that is in arrears in order to establish a rescheduling agreement.

3. Application of adjustments (if any) arising from retrospective scale changes

Every three years the UN establishes and publishes a new Scale of assessments, the basis for the BIPM calculation. However the Scale is not generally published ahead of the start of the three-year period to which it applies. Article 10 of the Metre Convention requires that “*the contributive parts of each of the contracting states shall be paid at the beginning of each year*”. Consequently the BIPM sends the *Notification* to Member States and Associate States and Economies of the CGPM no later than mid-December of the preceding year. For the first year of a new UN Scale the *Notification* is based on the “old” UN Scale (the new one not yet being available) and a note is included indicating that a correction will be included in the *Notification* for the following year. Whilst it would be simpler to wait for the publication of the new UN Scale before calculating the dotation, many countries wish to pay for the following year from uncommitted national budget, and need to do so in December.

The 2019-2021 UN Scale was not published until 4 January 2019 so the [2019 Notification](#), distributed to Member States in December 2018, was based on the 2016-2018 UN Scale. A correction was applied to the [2020 Notification](#). Consequently the 2020 BIPM *Notification* included an adjustment for each Member State following recalculation of their contribution for 2019 using the correct UN Scale as the basis.

Unlike Member States, Associate States of the CGPM are not required to make provision for Member States in arrears, so no such provisions (or the return of provisions where debts are repaid), appears on the *Notification* for Associates.

4. The special case of Associate Economies of the CGPM

In special cases Economies have been accepted as Associates of the CGPM. There are currently three such Economies:

- Hong Kong (China)
- Chinese Taipei
- CARICOM

Hong Kong (China) and Chinese Taipei are not part of the UN Scale. Their BIPM coefficients are established by *pro rata* from their GDP (Gross Domestic Product), using the most recent available data provided by the International Monetary Fund (IMF) as published in the World Economic Outlook Database.

CARICOM (Caribbean Community) is an Associate Economy of the CGPM since 10 October 2005 on behalf of eleven³ of its members, all of which are listed on the UN Scale. The UN Scale percentages for the component states are summed, and from that point for calculation they are treated as per any other Associate State, except that [Resolution 4](#) (2011) which address Associate States but not Associate Economies, do not apply.

It should be noted that Economies cannot accede to the Metre Convention, and they are not addressed in [Resolution 4](#) (2011).

³ Antigua and Barbuda, Barbados, Belize, Dominica, Grenada, Guyana, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago.