Transforming pledges into quantified emission limitation and reduction objectives (QELROs)

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# Transforming Pledges into QELROs: definitions and approaches

- The QELRO, expressed as a percentage in relation a base year, denotes the average level of emissions that an Annex B Party could emit on an annual basis during a given commitment period

- Pledges represent the end point of a trajectory of emissions that a Party sets itself to achieve

- The transformation of pledges into QELROs situates the pledges in the context of a commitment period and related accounting of emissions and removals

- In practical terms, it involves calculating the average annual emissions relative to a base year that would fit the emissions trajectory leading to the pledged target

Transforming Pledges into QELROs: parameters and options

- Values of pledges for emission reduction in 2020

- Starting point of the emissions trajectory

  a) QELROs for the first commitment period (CP1)
  b) The current emission levels

- The length of the second commitment period

  a) 5 or 8 years

- Other considerations affecting the effort to meet the QELROs

  a) LULUCF
  b) Mechanisms
  c) Efforts and achievements to date (surplus and carry over)

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Transforming Pledges into QELROs: impact of starting point
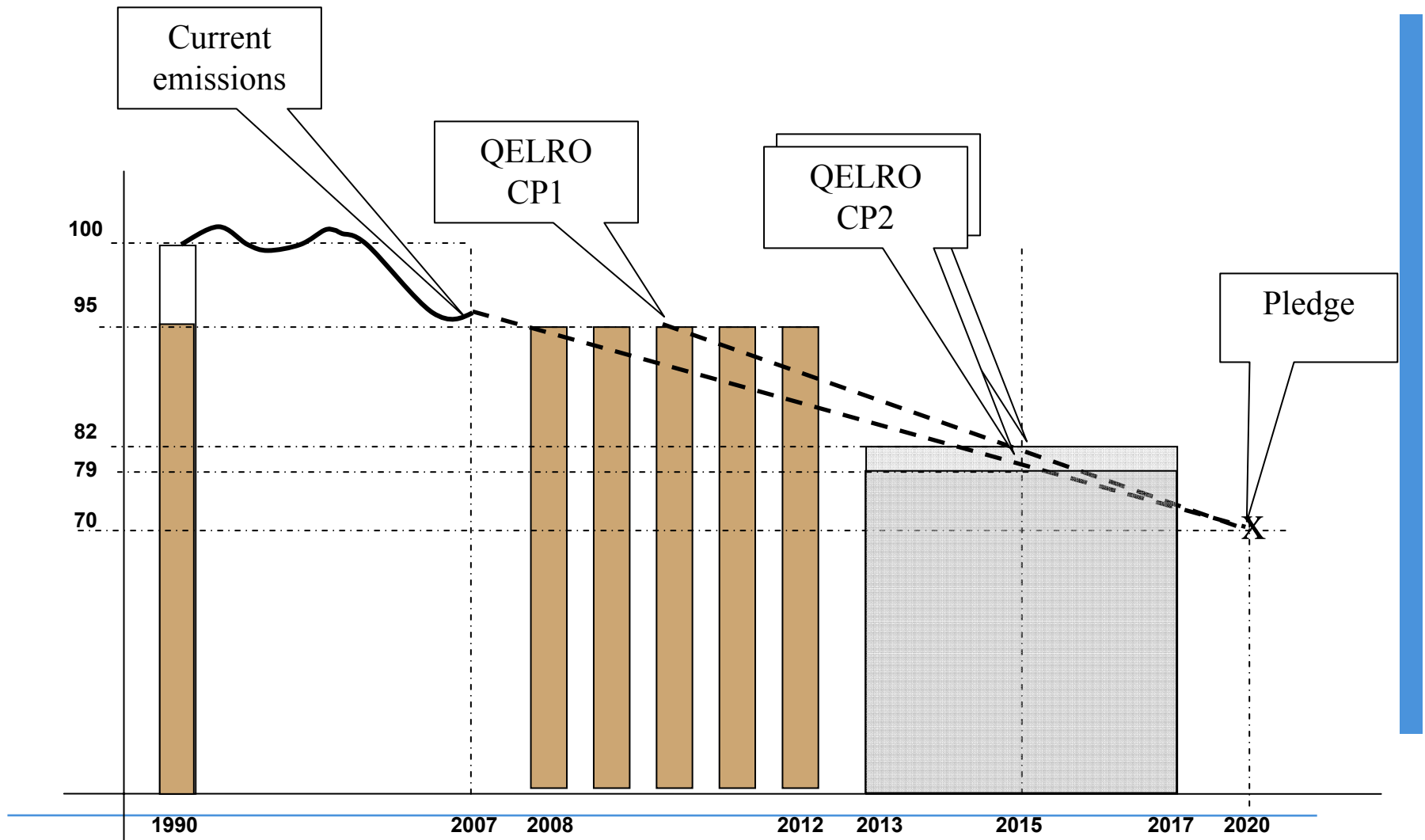
Calculation of pledges into QELROs

- **1. Variables**

  a) Y_s – the year of the starting point of the emissions trajectory
  - 2010, if QELROs for CP1
  - 2007, if the current emissions level

  b) Y_e – the end year of the pledge (2020)

  c) Y_m – the middle time in the commitment year
  - 2012 to 2020 = 2016.5
  - 2012 to 2017 = 2015

  d) E_s – the level of emissions at the starting point (2007) or average allowed emissions (CP1)

  e) E_e – the pledge

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Calculation of pledges into QELROs

- **2. Calculate the parameters for the regression line**

  - the slope of the emissions trajectory

  $$m = \frac{E_s - E_e}{Y_s - Y_e}$$

  $$m = \frac{95 - 70}{2010 - 2020} = -2.5$$

  - The intersect

  $$c = E_s - (mY_s)$$

  c = 95 - (-2.5 $_x$ 2010) = 5120

3. Calculate the QELRO

QELRO = m Y_m + c

QELRO = -2.5 $_x$ 2015 + 5120 = 82.5

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Transforming Pledges into QELROs: results in the technical paper

- QELROs in the technical paper are presented as:

  a) per cent of base year
  b) and as tonnes of CO2 equivalent emitted

- Four tables are included with illustrative examples

  a) 2 lengths of the commitment period - 5 and 8 years
  b) 2 options for the starting point of the emissions trajectory.

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Transforming Pledges into QELROs: implications of the results

- Information on transforming pledges into QELROs is presented in the technical paper for illustrative purposes only

- The results presented have no legal status and do not pre-empt the outcome of the AWG-KP work

- QELROs in Annex B are to reflect the outcome from the negotiations process