

3. Projections for EEE POM and E-waste Generation/Management in West Asia

This report considers two contrasting scenarios in the EEE sector, both projected to 2050, for long-term e-waste generation and management in the West Asia region: a BaU scenario with current EEE consumption and disposal patterns and a CE scenario of improved EEE durability, sharing, reuse, and recycling.

3.1 Regional Overview

The scenarios' comparative effects on the totals are presented in the figures below. Figure 3 illustrates projections for EEE POM in the West Asia region under the BaU and CE scenarios. Under the BaU scenario, the amount of EEE POM is projected to steadily increase from 2.2 Mt in 2020 to between 4.8 to 7.5 Mt in 2050 (the range corresponds to variations in projected economic and demographic data). The CE scenario in the EEE sector has a noticeably stronger effect on EEE POM in the long term, reaching 3.1 to 5.6 Mt in 2025, which equates to 1.7 Mt to 2.4 Mt less in 2050 than in BaU conditions. In fact, under the CE transition pathway, the EEE POM's slope decreases in the 2040s, while the population still has access to and makes use of the same functionality that newer EEE can offer under the BaU pathway. This is achieved through more reuse and repair, more sharing, and longer lifespans of certain types of equipment.

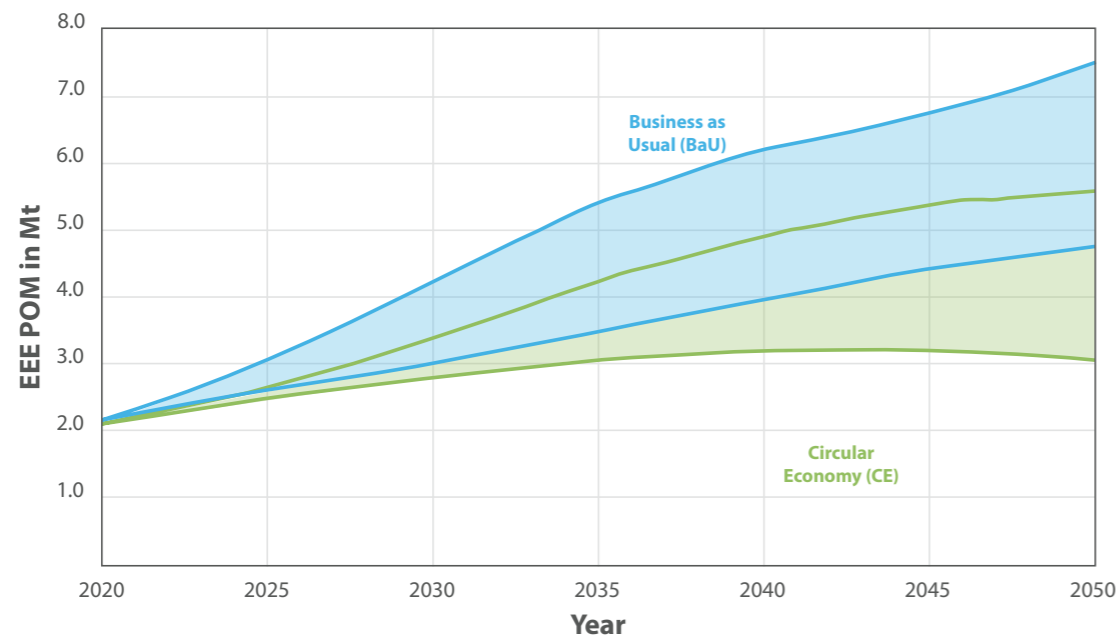


FIGURE 3: EEE POM (millions of tonnes per year) for the West Asia region, projected to 2050 for the BaU (blue) and CE (green) scenarios. The range corresponds to variations in projected economic and demographic data.

Figure 4 shows the resulting projections for e-waste generated out to 2050. Contrastingly, the e-waste generated for the time horizon considered shows a delayed response to the CE transition, generating between 3.3 and 3.9 Mt of e-waste in the BaU scenario in 2050. In the CE scenario, 2.9 Mt to 3.4 Mt of e-waste is generated in 2050, which is 0.4-0.5 Mt less than in the BaU scenario (as before, the range corresponds to variations in projected economic and demographic data). It is expected that the CE effects will be more pronounced in e-waste generated in the latter parts of the century, should assumed CE trends continue, though it is difficult to justify such long-term extrapolations due to the high levels of uncertainty involved. On the other hand, the e-waste generation in the next two to three decades has been partly predetermined by historic EEE POM to date, as well as the near-term POM projections (for 2020-2030) that are showing sustained EEE POM growth even in the CE pathway.

Supplementary data on the detailed modelling is provided in ANNEX 7.2 to 7.4. The projections per country are provided in ANNEX 7.7.

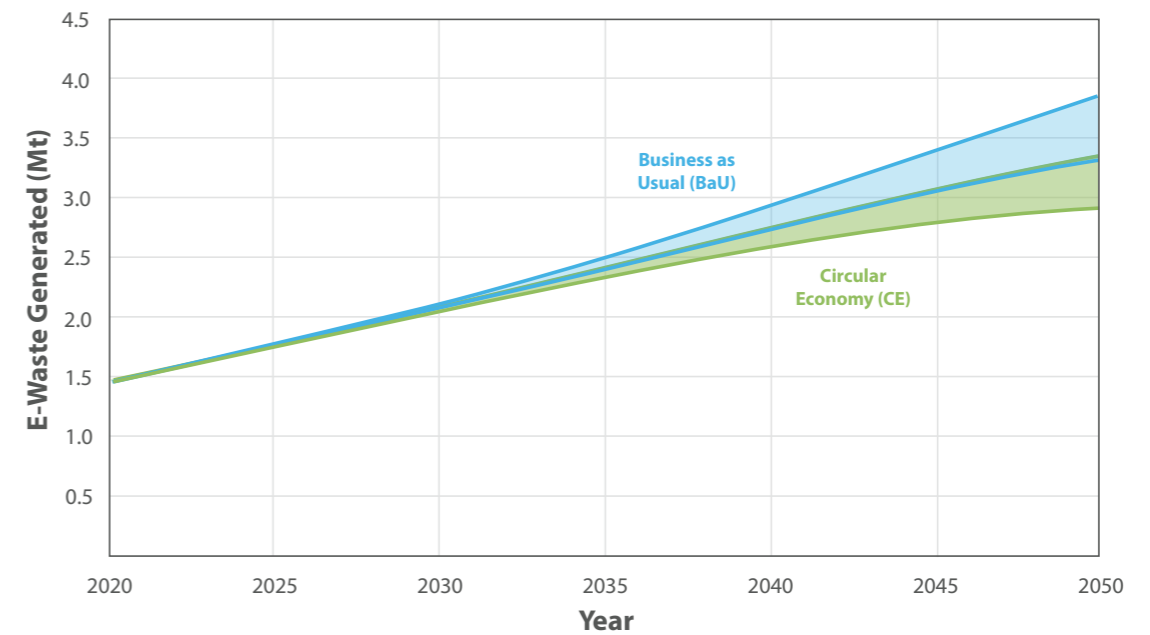


FIGURE 4: E-waste generated (in millions of tonnes annually) for the West Asia region, projected to 2050 for the BaU (blue) and CE (green) scenarios. The spread represents projected variations for economy and population.