



12 October 2023

Ms Elspeth Dyer  
Principal Council Officer  
Committee Office  
NSW Legislative Council  
Parliament of NSW  
6 Macquarie Street  
Sydney NSW 2000

Dear Ms Dyer,

I write to provide an answer to a question taken on notice during my appearance at the NSW Legislative Council Portfolio Committee No. 2 Inquiry hearing into the current and potential impacts of gold, silver, lead and zinc mining on human health, land, air and water quality in NSW, held on 18 September 2023.

My answer to the question asked by the Committee Chair regarding the proportion of silver currently being used for industrial applications in electronics globally, is as follows:

Silver is the best conductor of electricity of all the metals. The primary source of demand for silver is in industrial applications, largely relating to electronics.

Silver is contained within almost all electronic devices including computers, mobile telephones and televisions. It is an important component in electric vehicles (EVs) and is widely used in the aviation and space industries.

One of the fastest growing sources of demand for silver is for use in photovoltaic cell technology (solar panels), where it is used as a conductive layer on silicon solar cells.

Demand for silver in solar panels has tripled over the last decade and now contributes around 14% of global demand.<sup>1</sup> A recent University of NSW study highlights that newer, more efficient solar technologies use more silver per watt of power, and for the most efficient panels, the increase in silver per watt is more than double the predominant technology in use today.

The study forecasts that the solar sector alone could exhaust between 85 per cent to 98 percent of global silver reserves by 2050, absent any changes in any solar technology.<sup>2</sup>

Silver also has a vast array of other applications across industrial and medical applications, water purification, investment, silverware, jewellery, and photography.<sup>3</sup>

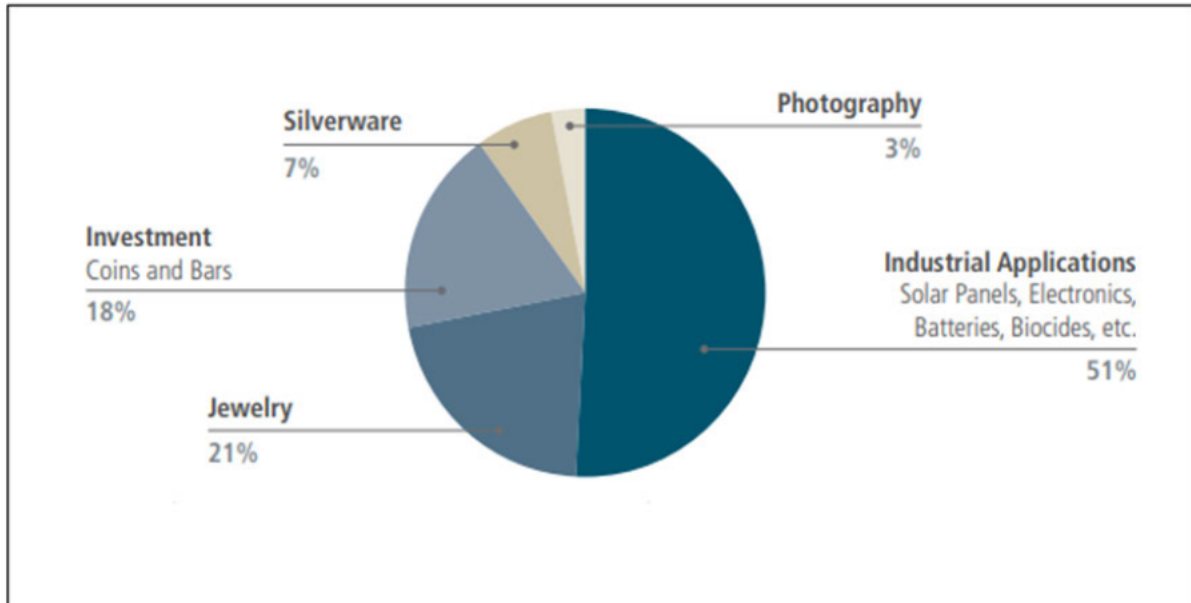
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<sup>1</sup> <https://www.silverinstitute.org/silver-supply-demand/>

<sup>2</sup> <https://onlinelibrary.wiley.com/doi/full/10.1002/pip.3661>

<sup>3</sup> [40 Common Minerals and Their Uses](#)

A percentage breakdown of total global silver use is provided in the chart below:



Source: Source: GFMS Definitive, Metals Focus, The Silver Institute, UBS

This information was also included in the NSW Minerals Council's formal written submission to the Committee's Inquiry.

I trust this answer will assist the Committee in the preparation of its report.

Yours sincerely,

**Stephen Galilee**  
Chief Executive Officer