

- **Submission to Inquiry: The Semiconductor Industry in the UK**

BEAMA is the trade association for manufacturers of electrical and energy-related products, comprising multinational companies, SMEs and start-ups across a range of technologies delivering the UK's electrical infrastructure and networks, building electrical systems, heating & ventilation and flexible energy.

Many of our members products incorporate semi-conductors and the shortage of supply and cost increases over recent years have had a significant and persistent impact on the ability to supply essential electrical and energy equipment.

The results of the global supply issues are continuing to affect UK manufacturers and will create an enduring increase in both costs and supply times for a very considerable period of time.

The effects reported include:

#### **INCREASED COSTS**

For specific semiconductors in exceptionally short supply this has been reported at price increases of up to 200 x the standard price, with significant multiples of pricing reported and doubling of 'normal' prices being commonplace. Across the board, even for semiconductors with a good availability of supply, price increases of 10-20% above previous levels are now standard and are expected to be built in for the long-term.

#### **DELAYED SUPPLIES**

Lead times for supply of semiconductors can now stretch to 18 months and 12 months is typical.

#### **UNCERTAINTY OF SUPPLY**

Semiconductor orders are now typically on non-guaranteed basis, i.e. the customer must fully commit to a large order with very long lead time to gain an allocation but both the timing and quantity of eventual supply may vary at the supplier's option.

#### **UNCERTAINTY OF MARKETS**

Some semiconductors face such a lack of availability that manufacturers may need to use circuitous supply routes for these products and then screen and test those obtained to ensure compliance and reliability, adding further cost and time

#### **REDESIGN OF END PRODUCTS**

The combination of supply issues above means that end-product manufacturers may be forced into a redesign of their products to accommodate fewer semiconductors or those of a different type or design. This all demands considerable time and cost and for many products can add 24 months to supply

times, e.g. 18 months of supply chain planning and 6 months of redesign. In addition, in some cases additional third-party testing of redesigned products will be required by regulation or customer requirement, adding multiple further months.

## CHANGE IN THE SEMICONDUCTOR MARKET

Semiconductor manufacturers have overwhelmingly moved production towards newer, higher-cost models both to match the requirements of the consumer electronics market and to generate greater revenue. This means that many of the products typically used in a range of industry sectors, including energy products, may not be widely available again and so redesigns will be enforced in the longer term.

## ACTION REQUIRED FROM UK GOVERNMENT

**Review the timing of regulatory requirements** to take account of semiconductor supply shortages. For example, the Electric Vehicles (Smart Charge Points) Regulations 2021, which come into force at end of June 2022, contain security requirements that will typically increase the need for semiconductor use that may be practically impossible to meet.

**Review energy company procurement regulations** to take into account both the extended supply lead times and long-term increased costs for products using semiconductors. Energy network operators and supply companies must adopt a flexible approach to accommodate the fact that products that have been procured for many years will now require redesign, face prolonged and uncertain supply timings and will be subject to long-term cost increases from third-party suppliers.

## ACTION REQUIRED FROM UK INDUSTRY

**Communication between manufacturers and customers** must be consistent and cooperative. Customers will need to adopt considerable forward planning in purchasing to enable manufacturers to manage lead times for ordering semiconductors and incorporating design changes. Manufacturers must communicate the uncertainties faced with their customers with the maximum of clarity and cooperate in a flexible approach for product supply.

For further information please contact:

**Andrew Willman**

Chief Operating Officer

Director of Legal, Trade, Economics & Finance

T +44 (0) 20 7793 3038

M +44 (0) 7824 705802

E [andrew.willman@beama.org.uk](mailto:andrew.willman@beama.org.uk)

W [beama.org.uk](http://beama.org.uk)

BEAMA

Rotherwick House, 3 Thomas More Street, London E1W 1YZ

BEAMA Limited is registered in England No. 84313