



Pole Products

Closing the Loop

Contribute together to a more sustainable future



Closing the Loop

A circular economy is a must for a sustainable future. We therefore have to produce and consume in a different way, in which the right choice of materials and designs for reuse play an important role. In addition, it is important that materials are preserved in the cycle. Due to its infinite recyclability, aluminum is the ideal material to promote a circular economy.



Animation
Closing the Loop

Hydro recycling units

Hydro has a unique starting position with its own recycling units, extrusion plants and the manufacturing of end products. We process pre-consumer scrap (factory scrap), from our own sites and from our customers, and post-consumer scrap. This is aluminum scrap from products that have already had a life.

Once collected, the scrap is taken to one of Hydro's recycling units. In the UK this is Tibshelf. There it is melted and formed into billets so that it can return as an input material for use in new products. In this way, waste is minimized and valuable aluminum is returned to the production process.

Less energy and raw materials

Because we produce our raw materials ourselves, we can influence the environmental impact of our products. Hydro light poles are made from a high share of recycled content, pre-consumer scrap and post-consumer scrap, and some primary aluminium.

Recycling aluminum costs only 5 percent of the energy required for the production of primary aluminum, resulting in a reduction of CO₂ emissions. Moreover, the material remains in the cycle, so that less virgin materials are needed.

Closing the Loop system

The higher the share of recycled material from post-consumer scrap, the more sustainable our light poles. In order to process more post-consumer scrap in our recycling units, we have set up a system to take back used aluminum products. The process provides insight into the reuse of materials and their sustainable processing.

Recycling of used light poles

A major challenge in the post-consumer scrap recycling process is the removal of unwanted elements in the scrap stream, including coatings, oils, plastics, other metals and organic compounds. These must be removed from the metal to improve scrap utilization and ultimately the aluminum's recycling potential. Hydro is constantly researching and developing new technologies to improve the recycling of aluminum and therefore produce even more sustainably.

The difference between post-consumer and pre-consumer scrap

Post-consumer scrap

When recycled aluminum is made from used window frames or car parts, the material starts a new life. Previously used aluminum is referred to as post-consumer scrap and its carbon footprint is close to zero.

Pre-consumer scrap

Recycled aluminum made from production scrap or "pre-consumer" scrap is different. It has not yet completed its lifespan and must therefore maintain the carbon footprint of its original manufacturing process. If this is not done, the production emissions of the material will not be taken into account.

This means that to accelerate emission reduction, we need to increase the use of post-consumer scrap.

This is how the Closing the Loop system works

1. Start of the project

Hydro discusses with you:

- the current material flows;
- the material inventory (annual volume, composition of materials, de-assembly process, dimensions, etc.)
- your wishes and needs;
- the pre-calculation of your yield;
- the project planning.



2. Collecting the material

Hydro or one of our circular partners handles the collection of the scrap in consultation with you. Depending on the situation, this can be done by placing containers, directly collecting materials, or through customized collection agreements. In doing so, we take practical and cost-efficient solutions into account. Where possible, we combine return transport with deliveries of new materials. This reduces transport movements and contributes to a lower environmental impact.



3. Calculation of your yield

The proceeds of the aluminium scrap, after deduction of the costs incurred, will be settled with you.



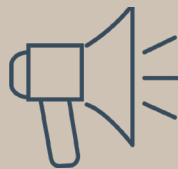
4. Closing the loop

Hydro, in collaboration with a circular partner, handles the dismantling and sorting of the materials. Hydro melts down the aluminium in one of its recycling units and makes new products from it. Materials that Hydro cannot process are returned to the loop via specialized chain partners.



5. Marketing communications

You will receive a certificate that you can use towards your customers for marketing purposes. We are also happy to communicate with you to the market to draw attention to closing the cycle.



How can you contribute to a circular economy?

Please contact us if you want to return used aluminum light poles. Together we are closing the loop!



Industries that matter

Hydro - Pole Products

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Whitepaper recycling

Hydro is a leading aluminum and energy company doing business and building partnerships for a more sustainable future. We develop industries that are important to people and society.

Since 1905, Hydro has been converting natural resources into valuable products for people and businesses, creating a safe and secure workplace for our 30,000 employees in more than 140 locations and 40 countries.

Today, we own and operate multiple companies and invest in sustainable industries. Hydro is present in a large number of market segments in aluminum and metal recycling and traditional and renewable energy. We offer a unique wealth of knowledge and competence.

Hydro is leading the way towards a more sustainable future by creating more livable communities by turning natural resources into products and solutions in innovative and efficient ways.