

## Getting Below 12.5 MWh/t Power Consumption

**METSOL**, a Bathco Company, has developed a novel and universally retrofittable low energy aluminum reduction cell technology designed to achieve power consumption below **12.5 MWh/t**.

The technology has been extensively evaluated at KAP smelter in Montenegro where some cells have consistently delivered power consumption around 12.45 MWh/t while maintaining current efficiency above 95% and significantly reduced CO<sub>2</sub> emissions.

The cell uses electrically compensated cathodes known as HPCA™ (High Performance Cathode Assembly, marketed jointly with French cathode specialist Carbone Savoie) with a multiple point alumina feeding system (MPF™ - Multi Point Feed). The cell is operated with a PLC based system designed to take multiple sensors that uses an algorithm to manage and optimize alumina feed in the cell for effective mass balance control, enhancing metal production and energy savings while predicting and preventing anode effects.

The system is sold on the market as APC™ (Advanced Process Control). APC is available as either a supplement to the existing reduction cell microcomputer or set up as a standalone system, replacing CELTROL or ALPSYS or similar systems.

While the system yields best results as an integrated solution, all elements are available as modules and can be installed based on specific requirements of the user.

Please contact us for further details and a specific analysis of potential benefits for your smelter.