

# Cogeneration Plant at Bausch + Lomb in Ireland Cuts Annual Operating Costs by up to €1 Million



In 2016, Bausch + Lomb – a leading eye-health provider best known as manufacturer of contact lenses – commissioned a highly efficient CHP plant in Waterford, Ireland, in line with its energy and sustainability strategy. The project, considered one of the largest of its kind in Ireland, was rolled out by Edina, MWM’s exclusive partner in Ireland. With its cogeneration plant equipped with the powerful MWM TCG 2032 V12 genset, Bausch + Lomb covers 65 percent of its electricity needs and 91 percent of its heat needs.

Thanks to the high plant availability of almost 98 percent and the MWM gas engine’s enormous efficiency and reliability, the company saves about 3,750 t of carbon and has been able to cut its operating costs by up to €1 million a year.

## Sustainability Strategy

“Bausch + Lomb is delighted with the performance of the cogeneration power plant, both in terms of the payback period and the machine availability. As a result, the company has saved even more emissions and costs than initially expected”, explains Derek O’Connor, Facilities Engineering Manager at Bausch + Lomb Waterford.

The CHP plant is part of Bausch + Lomb’s energy and sustainability strategy to improve its environmental and social impact. The new plant will greatly assist Bausch + Lomb in its annual recertification of ISO standards including ISO 50001. Derek O’Connor recalls: “A number of auto-production technologies were considered for the site, such as wind and solar. However, CHP technology was chosen based on its availability and return on investment potential.”

## Adapted to the Plant’s Performance Needs

The €3.3 million contract awarded to Edina comprised the delivery, installation, and maintenance of the MWM genset. The contract also included the construction of a purpose-built energy center to house the genset, the associated ancillary systems, and a separate waste heat steam boiler room. The CHP plant generates electricity at 10.5 kV and interfaces directly into the site’s MW ring, providing power to its office buildings, R&D facilities, manufacturing process, and warehouse units. Steam is generated by passing the exhaust gases at over 400°C from the engine through the exhaust gas heat recovery steam boiler and is used for sterilization purposes on site. The low-grade hot water recovered from the engine jacket water is also used and distributed throughout the factory, where it is used for process and space heating.

By installing the cogeneration power plant, Bausch + Lomb has not only saved costs, but has also substantially improved its carbon footprint in accordance with its sustainability strategy.

# Installation, Support, and Service from One Source

With a five-year service and maintenance contract for the CHP plant, Edina guarantees an engine availability of 95 percent (or 8,322 hours) per annum. The CHP plant is remotely monitored on a 24/7 basis in order to automatically detect and alert Edina's service desk of any issues on site.



## Bausch + Lomb Waterford

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**Country:** Ireland  
**Operator:** Bausch + Lomb

## Technical data CHP

**Go-live:** May 2016  
**Engine type:** 1 x TCG 2032 V12  
**Generator:** Marelli MJB 800 MB 6  
**Gastype:** Natural Gas  
**Control:** TEM  
**Thermal efficiency:** 43.5 %  
**Electrical efficiency:** 43.1 %  
**Thermal output:** 3,251 kW  
**Electrical output:** 3,333 kW  
**Total efficiency:** 86.5 %



All photos: Edina

## Excellent Values

The MWM TCG 2032 V12 genset has been in operation since May 2016. With an availability of 97.2 percent, the plant now generates more than 28 million kWh of electricity, approximately 17.3Mt of steam, and 12,482MW of hot water per annum, enough to supply 5,980 homes with electricity and 2,105 homes with heat. What is more, the annual carbon savings amount to up to 3,750 t.

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