### CASE STUDIES CONTINUED

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<th>PROJECT</th>
<th>EQUIPMENT USED</th>
<th>TARGETS/ RESULTS</th>
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| LED Lighting Tower    | Mecc Alte PMG5G Alternator  
                          | Mecc Alte DC250 Lighting Tower Controller  
                          | LiFePo Smart Battery Pack                                                      | >3 ekW Same Engine  
                          | Volts Constant       | Charge Control       |
| LED Lighting Tower    | Mecc Alte PMG5G Alternator  
                          | Mecc Alte SLC Speed Controller                                                 | >3x ekW Same Engine  
                          | Volts Constant       |                                                                       |
| Crane Range Extender  | Mecc Alte PMG7G Alternator  
                          | Mecc Alte HS315 Charge Controller  
                          | AGM Battery                                                               | Zero Emissions when in Warehouse  
                          | 1 Day without Mains Recharge                                              |
| Construction Site     | Mecc Alte PMG5G Alternator  
                          | Mecc Alte HS315 Charge Controller  
                          | LiFePo Battery  
                          | Solar & Wind Energy                                                      | Max Renewable Energy  
                          | Silent Never run at night                                                | 65% Less Fuel         |

### WHEREVER YOU NEED IT:
- DC Loads
- AC loads
- Battery Charging
- Fixed Speed Engines
- Variable Speed Engines
- Battery Assisted Hybrid

### EVERYTHING YOU NEED:
- Compact
- Lightweight
- Efficient

### AMAZINGLY VERSATILE MECC ALTE PMG ALTERNATORS

Enhanced performance as standard:
- Minimise Fuel Consumption
- Minimise Engine Run Time
- Access Exceptional Power Density
- Integrate Renewable Energy

### SMART LINK CONNECTIVITY

- Digital Generation
- Power Proven Details

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**CASE STUDIES**

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| Marine Hybrid Charging system  | **Mecc Alte PMG5G Alternator**
                                   | **Mecc Alte HS315 Charge Controller**
                                   | Solar Charging System Carbon Foam Battery | **89% Less Runtime** |
|                                |                                                                               |                                   | **87% Less Fuel** |
|                                |                                                                               |                                   | **23hrs Silence** |
| Telecommunications DC Hybrid Charging System | **Mecc Alte PMG7G Alternator**
                                              | **Mecc Alte HS315 Charge Controller** | LiFePo Battery | **>70% Less Fuel** |
|                                |                                                                               |                                   | **x3 Engine Life** |
|                                |                                                                               |                                   | **4 Month Autonomy** |
| Hybrid Genset with Batteries   | **Mecc Alte PMG7G Alternator**
                                   | **Mecc Alte HS315 Charge Controller**
                                   | Lead Acid Battery | **35% Lighter Engine** |
|                                |                                                                               |                                   | **50% Smaller Package** |
|                                |                                                                               |                                   | **60% Less Fuel** |
| Hybrid Materials Handling Equipment | **Mecc Alte PMG5G Alternator**
                                          | **Mecc Alte HS315 Charge Controller**
                                          | Lithium Battery Pack | **47% Smaller Engine** |
|                                |                                                                               |                                   | **Battery Only Mode** |
|                                |                                                                               |                                   | **CO₂ Reduced Emissions** |

A **Permanent Magnet Generator** gives you physical benefits; lower weight and length, coupled with electronic benefits that ensure superior technology maximises the efficiency of your whole power system.

Mecc Alte’s Permanent Magnet Generators (PMG) use a multi-pole design to produce a rectified DC output. This means that the DC output can be used to provide a flexible solution across a wide range of applications – a level of versatility that’s not normally possible with traditional generators.

The DC output can be used to directly feed DC loads or directly charge batteries. The ability to do this without an additional rectified DC output greatly helps with system efficiency. If an AC output is required, an inverter stage can be included. Even a combination of DC loads, batteries and AC loads is possible.

The range offers DC outputs up to 35kW and AC outputs up to 20kW. Visit our website for more specification details.

We also offer a range of control solutions which solve all the issues of using PMG alternators in varied applications. Talk to our experts about PMGs integrated with control solutions, battery charging and how Mecc Alte can help.

Don’t just take our word for it. Take a look at just a few of the projects where our PMG technology has delivered significant advantages to our customers.

In every case, our customers were able to achieve specific project goals. They reduced not only the amount of CO₂ produced in use, but also further reductions from the quantity of raw materials needed for construction and shipping.

Integrating Mecc Alte’s PMGs with our associated controllers can also deliver savings to your projects. Our engineers have a wealth of technical experience that can help you to create highly efficient, highly versatile, bespoke machines. No wonder they call Mecc Alte the **Power from Within.**