



Green  
Mountain

HPC

# Green Mountain

The World's Most Efficient Data Centre  
Setting The Green Standard

Green Mountain offers the world's greenest data centres. This is where the mountain meets the fjords, which enables us to use hydropower to sustainably cool our facilities. We utilize 100% renewable power to operate our award winning facilities, which are located deep inside Norwegian mountains.



## The Green Standard - 100% Renewable Power

Is Carbon Neutral HPC a true possibility? With access to 100% renewable power and free cooling 365 days a year, Green Mountain uses Norwegian hydropower as an energy source for the complete cooling within our data centres. This way we are able to provide our clients with Europe's lowest prices on power, compared to our competitors. One of the main challenges in the data centre industry is ensuring continual cooling throughout the day. At Green Mountain, we use nature and cold water from the deep Norwegian fjords located adjacent to our facilities to ensure the most efficient and effective cooling process. By using gravity, the cold water flows to the data centre cooling station without the need for power. We then only require minimal power to pump the cold water from our pump station into the datacenter through our heat exchangers (1kw of power for 100Kw of cooling). Our solution therefore, provides 100% environmentally friendly, free cooling of our data centre. This unique cooling system provides energy efficiency for our clients, which results in a high quality, cost-effective and energy efficient data centre solution with zero CO2 emissions!



## Security - Physical and Operational Security

At Green Mountain, we understand that data security demands more than antivirus programs and firewalls to guard against cyber-crime, theft, vandalism, natural disasters, human-generated disasters, accidental damage and other incidents. Our security system and our standard operational practices are in accordance with ISO 9001/14001/27001, and each of our data centres make use of a full array of security tools to monitor and record access within our facilities. Our facilities are also one of the few globally, which are Open Compute Project Ready. The reason for this is that we are housed within an ex NATO ammunition facility and are not only able to provide 50 Kw per rack as standard (with free cooling), but also take the floor load of 1,500 kg's per rack. We also have very accessible rooms, without any steps, because the rooms are housed within tunnels inside a mountain. There is no issue with height clearance for any HPC or OCP equipment. Our data centre is among the safest in the world, not only because it is in the Norwegian mountains, but numerous barriers have been set up to prevent unauthorized access. The entire area is continuously monitored by an intelligent video analysis system, we carry out identity checks by all visitors, the centre is secured with biometric identification systems and everyone has to go through mantraps before they can access the centre.



## Quality – 100% Uptime

We guarantee 100% uptime with Tier III resilience. Green Mountain has been built to the highest global standards and since the first day of operation, our data centres have delivered a service level of 100% uptime! Our team of data centre experts are working proactively to ensure safe operations of the infrastructure in the facilities and have in-depth experience of solving challenges for companies whose uptime of infrastructure is business critical. Since all our clients have unique business service and support requirements, our team is committed to providing personalized services to our clients' operational needs. Several independent power supplies ensure that Green Mountain always has abundant power supply, both now and in the future. The cooling and electrical infrastructure is duplicated, so that the data centres are operational both during scheduled maintenance and in the event of any unforeseeable faults within our infrastructure. Additionally, our facilities are Uptime Institute TIER III certified, which sets the standard for international best practices in building and operating "rock-solid" data centres. Our quality of operation is thoroughly documented through continuous and real-time measurements. We provide our clients with in-depth reporting and they can track their environment within our real-time analysis system, providing direct, in-depth information about infrastructure and the environment in the data centres.



## Connectivity – Strategic Location

We continue to invest in direct high capacity connectivity to the UK and Europe. Our data centres are strategically located near the North Sea, Europe and the United States, which makes Green Mountain a strategic choice for any company that requires Co-location of their IT infrastructure. We are carrier-neutral and provide access to a wide range of local and international network operators. That way, we very efficiently connect our clients to the rest of the world. We also provide unlimited capacity and high-speed fiber to all our clients.



## Flexibility – Built as Needed

We provide completely tailor made solutions that are unique in all aspects and deliver exactly what our clients demand. Our data centres in Stavanger and Rjukan are flexible by design and can be scaled up or down based on our clients' needs current and in the future requirements. Green Mountain offers customized solutions according to our clients' specifications, which can start with one rack and expand as the need increases. Our clients can actually have their own data centre located within our facilities if they choose to do so. With two data centres located in different geographical and climate zones, we could offer the possibility of having data centres with geographic redundancy, but leveraging the advantage of an integrated network infrastructure.



## Cost saving – High Quality Low Cost

We guarantee consistently low cost of power, which are approximately 70 % less than standard prices in the UK and Central Europe. Norway is the perfect low cost-location for any High Performance Computing deployment. Combining Norway's extensive investment in Hydro generated electricity, coupled with being one of the safest locations globally, our clients are able to deploy their HPC infrastructure in a completely carbon neutral environment. With access to all of these attributes, Green Mountain provides intensive and high performance computing users with optimised solutions and significant long-term cost savings. Green Mountain also enable High Performance Computing clients to minimise the total cost of operation by harnessing the excellent infrastructure and natural environment within Norway. We guarantee higher quality, at a lower cost than our clients manage to produce themselves. From January 2017, Green Mountain was approved for the Norwegian tax relief system, which reduces power charges by 97 %. We transfer the full benefit to our clients, which give you a 35 % reduction on the total electricity bill.

As we manage data on behalf of our customers, we are dependent on reliable, scalable and high performing data centers. Since we started using Green Mountain's services, we have experienced a professional partner and high-quality deliveries from day one. We sleep good at night, knowing our customer's data is well taken care of, deep inside the Ryfylke mountains.

**Poul Erik Jensen**

Chief Operating Officer, Cegal

