

RST assists in record-breaking project supplying advanced solutions to the renewable energy industry

A record-breaking renewable energy project in the Philippines is crediting Australian-based global industry leader in fine particle management, Reynolds Soil Technologies, for helping save millions of dollars.



Queensland, Gold Coast, May 17, 2021 ([Issuewire.com](https://www.issuewire.com)) - Advanced soil stabilizers developed by fine particle specialist Reynolds Soil Technologies (RST) assisted a civil construction company to achieve significant savings for the construction of access and service roads at a renewable energy project in Aklan, Philippines.

The construction of a wind farm was completed well under budget by using RST's [RT20 Dynamic](#) soil stabilizer to build the roads as well as platforms for the giant wind turbines.

RT20 Dynamic removed the need for cement or bitumen to increase the strength and stabilization of roads to support trucks carrying turbine parts weighing more than 100 tonnes.

Transporting the turbine parts up the steep incline to the wind farm at the top of a ridge had been problematic prior to the roads being upgraded using RT20 Dynamic.

[RST](#) Operations and Technical Director David Handel said the wind farm's location halfway up a mountain made it difficult for the trucks to safely ascend the steep incline as the original roads were not strong enough to support the weight being carried.

He said the civil contractor used RT20 Dynamic as an alternative to cement and bitumen to strengthen and stabilize the road and the results were significant.

“Wind energy infrastructure is massive, so when wind turbine companies transport equipment to wind farm developers, they need roads that can handle such an immense weight,” Mr. Handel said.

“Safely navigating the roadways requires roads with heightened bearing capacity and our client was looking for a cost-effective alternative to concrete or bitumen.

“RT20 is the latest nanotechnology that improves the qualities of road-building materials by increasing density and compaction.

“When treated with RT20, the material can be compacted faster using less water, strengthened by an increased density through the reduction of void spaces between the soil particles.

“This greatly improves bearing capacity and in turn reduces the ability of water to permeate through the compacted material, which means the roads perform at a high level even in extreme wet weather.

“The key is that an RT20 Dynamic stabilized road will maintain its structural integrity whatever the changes in moisture content may be.”

600-tonne plate load tests were also carried out to ensure the strength and quality of the platforms where 10 turbines of 100 tonnes each were placed.

By using RT20 in the construction of the roads, the civil construction company increased the surface life and reduced dust levels while significantly lessening ongoing maintenance requirements.

Roads and pavements treated with RT20 are also highly resistant to the damaging effects of water and require less aggregate and traditional stabiliser addition when being constructed.

RT20 Dynamic is being used to transform unpaved roads across the Philippines, including a problematic road used by a solar farm company in Cebu.

Due to the heavy traffic transporting solar equipment, the road became badly degraded and during rain, events were unfit for traffic.

Local families who use the roads had been complaining about the quality and that it became too muddy a road for motorists to pass through after heavy rains.

Mr. Handel said the road was unstable due to water seepage underneath and it had never been repaired or rehabilitated to the high standard that the civil contractor was able to achieve using RT20 Dynamic.

“The client was very satisfied with the stabilization achieved using RT20 as it did not get washed out even with continuous heavy rains every day,” he said.

RT20 Dynamic compliments standard construction practices in road construction and earthworks by adding the liquid formula into the water truck used for applying moisture to compacting the material.

For existing pavement rehabilitation, civil contractors rip the road to the recommended depth, break up

all large clumps of material and apply the diluted product to blend and compact.

RST's [range of products](#) is environmentally safe and can be applied using conventional water spraying equipment. RST also supplies a complete range of product dosage, application, and spray equipment, however before specialists decide which product is best suited for an operation, they evaluate if any existing spray system could be implemented in an ongoing maintenance program.

With operational challenges and environmental conditions differing at every site, RST specializes in customizing products and services to suit various requirements for dust control, surface stabilization, and erosion mitigation. Material type, application equipment, and processes, climatic conditions, and water availability and quality are among the factors considered by RST when delivering the right solutions for clients, backed by the company's 30-plus years in the field of fine particle management.

[RST](#) is an Australian business operating internationally, with presence and projects currently in the United States of America, China, New Zealand, New Caledonia, Mongolia, Papua New Guinea, Indonesia, the Philippines, Malaysia, India, Colombia, Chile, Croatia, Argentina, Peru, Brazil, Mexico, Lithuania, and the United Arab Emirates.

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