Energy Farms on the Moon?

(EnergyMatters [1]) - We've covered space based solar power [2] generation in the past, but here's a concept that takes it a step further (away) - using the moon as a massive solar farm.

The boffins at Japanese construction firm Shimizu Corporation have dreamed up the "Luna Ring", its lunar solar power generation concept. The concept sees an array of solar cells extending along the entire 11,000 kilometre lunar equator, growing in width from a few kilometres initially to 400 kilometres wide, which would provide more than enough power for humanity's energy needs forever.

That's a lot of solar panels [3] to ship from Earth to the moon, so the team envisions lunar resources being used wherever possible for materials for the "solar belt", including the production of solar cells. Mobile factories would generate the solar cells right by the site being worked on at the time.

Robots would play a vital role in construction of the solar farm, operated remotely 24 hours a day from the Earth. Machines and equipment necessary for the project would be assembled in space and landed on the Moon's surface for installation.

But how to bring all that power to Earth? Electric cables would transfer the electricity from the solar panel arrays to transmission facilities. Much like the space based solar farm concept but on a much larger scale, 20 kilometre diameter antennas will the beam power to receivers here on Earth.

A guidance beacon would ensure accurate transmission to our planet - which is a good thing as the huge amounts of energy being transported if misdirected could otherwise be a solar powered death ray.

Learn more about the Luna Ring [4] concept.

Courtesy of Energy Matters [5] *Australia - solar power* [6] *and wind energy* [7]"

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