

# Net radiation and energy balance essay

[Literature](#)



**ASSIGN  
BUSTER**

Net Radiation is defined as the difference between the coming radiations to the earth and the outgoing or bounced-back radiations. The incoming radiations are gained between 40 degrees north and 40 degrees south of the earth. The loss or the outgoing radiations take place pole-ward of the 40 degrees north and 40 degrees south of the planet. Despite the different places of occurrence of gaining and losing radiation, the heat is redistributed through the planet by the ocean currents and the atmospheres circulation of the globe.

It is also considered as the difference between the downward (gaining) and upward (losing) movement of radiation or the net flux of all the radiation in the planet. The net radiation is the determining factor of the planet's surface temperature, telling whether it rises, falls or remains the same. The net radiation is equated as the incoming solar radiation minus the outgoing Infrared radiation.

If the calculated net radiation is greater than zero, then it warms the surface of the earth, happening around 6am to 3-5pm. If the calculated net radiation is less than zero, it cools the earth's surface, which usually occurs between 3-5pm to 6am all throughout the day. We all know that the heat being radiated from the sun can reach temperatures that could burn us alive. But still, the earth manages to shield us from those deadly heats by regulating the heat of the planet and maintaining an energy balance in the surface of the earth. This is through various natural means, which we should be really thankful of. This includes the blanket of gases which is collectively known as the earth's atmosphere. The heat emitted from the surface is captured in the atmosphere thus decreasing the temperature of the planet's surface.

Another factor that plays a big role are the clouds, which blocks much of the solar energy and reflecting way back into space before the planet absorbs it. We should be very thankful that these natural “ tools” help in keeping the balance of energy in the planet, keeping at a safe place to call home.

Reference: The client specified that the reference is only their textbook. He however permitted to use internet as a source to construct the paper because he is unable to provide the reference book. The references used by the writer come from sites which are: [http://www.gsfc.nasa.gov/gsfc/service/gallery/fact\\_sheets/earthsci/terra/earths\\_energy\\_balance.htm](http://www.gsfc.nasa.gov/gsfc/service/gallery/fact_sheets/earthsci/terra/earths_energy_balance.htm)

[http://apollo.lsc.vsc.edu/classes/met130/notes/chapter3/daily\\_trend5.html](http://apollo.lsc.vsc.edu/classes/met130/notes/chapter3/daily_trend5.html)  
[http://www.uwsp.edu/geo/faculty/ritter/glossary/l\\_n/net\\_radiation.html](http://www.uwsp.edu/geo/faculty/ritter/glossary/l_n/net_radiation.html)

It is up to the client’s discretion if he would mention any of these references in the paper.