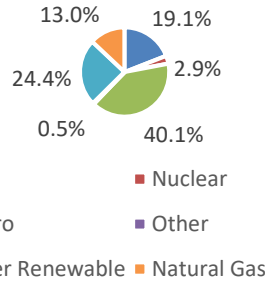




Environmental Disclosure for the Electricity Offered by Calpine Energy Solutions, LLC

For the calendar year 2017, Calpine Energy Solutions, LLC ("Calpine Solutions") relied on wholesale electricity contracts from which characteristics of the energy are not possible to determine at this time. (1)

Supply Mix (1) Your supplier has bought power or unique claims on the electricity produced from these types of power plants.



Environmental Impact (2) Amounts of pollutants per MWh of supply mix, compared to the U.S. average. All figures are in lbs / MWh.

Emission Type	Regional	National Average
Nitrogen Oxides	0.6	0.9
Sulfur Dioxide	0.7	1.9
Carbon Dioxide	566.1	1,137.0

Contact Calpine Solutions at: (877) 273-6772 or <http://calpinesolutions.com/>

For specific information about this electricity product, please contact Calpine Energy Solutions, LLC, and for general information about this product, please contact the U.S. EPA at: https://oaspub.epa.gov/powpro/ept_pack.charts

(1) The data shown above are default Net System Power values from WECC Northwest, and do not necessarily reflect the energy supplied by Calpine Solutions.

(2) These figures are based on 2016 numbers provided by eGRID at: <https://www.epa.gov/energy/emissions-generation-resource-integrated-database-egrid> adjusted to recognize Calpine Solutions' 2017 Renewable Portfolio Standard Compliance approved by the Oregon Public Utility Commission in UM-1957.