

DETAILED DESCRIPTION

[0030] The foregoing aspects, features, and advantages of the present disclosure will be further appreciated when considered with reference to the following description of embodiments and accompanying drawings. In describing the embodiments of the disclosure illustrated in the appended drawings, specific terminology will be used for the sake of clarity. However, the disclosure is not intended to be limited to the specific terms used, and it is to be understood that each specific term includes equivalents that operate in a similar manner to accomplish a similar purpose.

[0031] The present invention generally relates to an hydraulic fracturing system and method that is powered by electricity. The system and method are designed to deliver fracturing fluid to a well site. Traditionally, hydraulic fracturing is accomplished when a slurry of fluids and solids is injected into a reservoir to create fractures in the rock formation. Chemicals and fluids are mixed with proppants such as sand and ceramic beads and then pumped into the wellbore at high pressure with hydraulic pumps. The solids remain in the fractures that are created helping to keep them open, while some of the fluids return back out of the well.

[0032] One solution to the problems presented by the use of diesel and other engines in fracking operations is to power the equipment associated with the fracking operation using electric motors. Electric motors have the advantage of weighing less than diesel engines, so that they are easier to transport to and from a fracking well site. In fact, in some instances electric motor and pump combinations can be transported to a well site two to a trailer, cutting in half the number of heavy trailers required to be moved to a well site.

[0033] In order to fully exploit the advantages provided by powering hydraulic fracking equipment using electric motors, the present invention includes systems and methods for powering numerous other components of a hydraulic fracturing operation using natural gas. The