

CO2 Heat Pump Water Heaters

East TN Regional Office
160 State Circle
Rocky Top, TN 37769
(865) 712-1513

Middle TN Regional Office
2000 Jackson Hill Road
Burns, TN 37029
(615) 218-7697

West TN Regional Office
21540 Natchez Trace Road
Wildersville, TN 38388
(731) 333-0948

This request for bids is for a six-month contract to provide and deliver energy efficient Carbon Dioxide Heat Pump Water Heaters for Tennessee State Parks.

Scope of Work

The vendor shall provide and deliver energy-efficient Carbon Dioxide Heat Pump Water Heaters as indicated below. The water heaters must utilize carbon dioxide technology utilizing a separate outdoor rated heat pump and internal tank. All systems must be new, free of defects and damage, and carry a full manufacturer's warranty. Sanden is the approved manufacturer. Any material substitution of equal or better quality must be pre-approved.

Other requirements

Ambient operating range of minus 25 degrees F to 104 degrees F.

Provide a ten-year heat pump parts warranty and three-year labor warranty.

Operating Range: Hot water production down to minus 20 degrees F

83-gallon tank – first hour delivery 115 gallons

43-gallon tank – first hour delivery 71 gallons

Stainless Steel Tank with 15-year prorated warranty

Refrigerant shall be R744 (Carbon Dioxide).

Nominal heating capacity 15,400 Btu/h. Maximum Pipe length 50 feet, maximum vertical separation 16 feet.

Evaporator coils shall be mechanically bonded aluminum to copper tube. Fins shall be coated for corrosion resistance.

Power requirements: 208/230v-1Ph-60Hz on a 15-amp breaker.

Models, Sanden GS4-45HPC, SAN-83-SSAQA, and SAN-43SSAQA, ECO-FPVKT3540 Sanden Drain Down Valve Kit or pre-approved equal.

Delivery Location	Heat Pump	83 Gallon Tank	43 Gallon Tank	Valve Kit
East TN R. Office	7	7	0	7
Middle TN R. Office	13	7	6	13
West TN R. Office	26	6	6	12
Total	46	20	12	32

Additional Conditions

- 1) The units shall be delivered to the three locations as indicated.
- 2) Only the Facilities Management Office can approve any alterations, modifications, or substitutions to the written specifications or requirements of the project.
- 3) Invoice shall be submitted for payment within 10 days of project completion. A copy of the invoice shall be submitted to:

Teresa Bell, Middle Tennessee Regional Office, 2000 Jackson Hill Road, Burns, TN 37029 or Teresa.bell@tn.gov .

- 4) Facilities Management Contact for this project is:

Tim Stewart, 615-517-0598, tim.stewart@tn.gov

Nothing Follows