VERMONT
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HEAT SOURCE OPTIONS FOR A SYSTEM TO DEHUMIDIFY THE STATE HOUSE IN THE SUMMER MONTHS THAT ARE CONSISTENT WITH THE STATE AGENCY ENERGY PLAN SET FORTH IN 3 V.S.A. § 2291

In accordance with the requirements of 3 V.S.A. § 2291(d)(1) pertaining to heat source options for a system to dehumidify the State House in the summer months that are consistent with the State Agency Energy Plan. Three options were evaluated: heat shift chiller (water to water), propane boiler, air to water heat pump. The heat shift chiller has the lowest cost by $29,500 and the lowest annual energy cost.

20-Year Life Cycle Cost Analysis			
Item	**Heat Shift Chiller**	**Propane Boiler**	**Air to Water Heat**
Equipment	$60,000	$50,000	$70,000
Secondary pumps	$20,000	$10,000	$20,000
Hydronic specialties	$5,000	$5,000	$10,000
Boiler/Mech room piping,	$50,000	$50,000	$50,000
Connect to existing loop piping	$20,000	$10,000	$20,000
Breeching	N/A	$25,000	N/A
Additional control points	$20,000	$10,000	$20,000
Underground LP tank and	N/A	$50,000	N/A
Electrical feed and connection	$10,500	$5,000	$15,000
Plate and frame heat exchanger	N/A	N/A	$10,000
Glycol tank	N/A	N/A	$6,000
Total	**$185,500**	**$215,000**	**$221,000**