

**Electrified Home Heating Integration Analysis Device Cost Assumptions**

Spreadsheet: 2021-11-18-Integration Analysis-Inputs-Assumptions-Workbook, Tab: Bldg\_Res Device Cost

Residential Buildings - Device Costs			
Subsector	Technology	Cost Unit	2021
Residential Building Shell _ Large Multi Family			
Residential Building Shell _ Large Multi Family	Basic Shell	\$/device	\$ 26,259
Residential Building Shell _ Large Multi Family	Deep Shell	\$/device	\$ 36,365
Residential Building Shell _ Large Multi Family	Reference Shell	\$/device	\$ 3,590
Residential Building Shell _ Single Family			
Residential Building Shell _ Single Family	Basic Shell	\$/device	\$ 6,409
Residential Building Shell _ Single Family	Deep Shell	\$/device	\$ 45,136
Residential Building Shell _ Single Family	Reference Shell	\$/device	\$ -
Residential Building Shell _ Small Multi Family			
Residential Building Shell _ Small Multi Family	Basic Shell	\$/device	\$ 19,734
Residential Building Shell _ Small Multi Family	Deep Shell	\$/device	\$ 48,076
Residential Building Shell _ Small Multi Family	Reference Shell	\$/device	\$ 6,723
Residential Space Heating _ Single Family			
Residential Space Heating _ Single Family	Air Source Heat Pump	\$/device	\$ 14,678
Residential Space Heating _ Single Family	Electric Resistance	\$/device	\$ 1,140
Residential Space Heating _ Single Family	Ground Source Heat Pump	\$/device	\$ 34,082
Residential Space Heating _ Small Multi Family			
Residential Space Heating _ Small Multi Family	Air Source Heat Pump	\$/device	\$ 13,643
Residential Space Heating _ Small Multi Family	Electric Resistance	\$/device	\$ 1,140
Residential Space Heating _ Small Multi Family	Ground Source Heat Pump	\$/device	\$ 25,515
Residential Space Heating _ Large Multi Family			
Residential Space Heating _ Large Multi Family	Air Source Heat Pump	\$/device	\$ 26,873
Residential Space Heating _ Large Multi Family	Electric Resistance	\$/device	\$ 1,140
Residential Space Heating _ Large Multi Family	Ground Source Heat Pump	\$/device	\$ 39,974