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| COO Logo Building Dept | **CITY OF ONTARIO** **BUILDING DEPARTMENT**303 East B StreetOntario, CA 91764Phone (909)395-2023, Fax (909)395-2180 | **INFORMATION BULLETIN****108**Effective: 1 / 1 / 2023 Revised: ----- |
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| **WATER HEATER CHANGE-OUT****FOR SINGLE-FAMILY RESIDENTIAL** |

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| Effective January 1, 2023 the 2022 California Energy Code prescriptive compliance approach Section 150.2(b)1H requires altered or replacement service water-heating systems or components (e.g., water heater change-out) shall meet the applicable requirements below:1. **Water-heating systems:**

The water-heating system shall meet one of the following:1. A natural gas or propane water-heating system, OR
2. A single heat pump water heater (HPWH). The storage tank shall not be located outdoors. The storage tank shall be located in the garage or conditioned space. The storage tank is placed on an incompressible, rigid insulated surface with a minimum thermal resistance of R-10, and meet the applicable demand responsive control requirements, OR
3. A single 240 volt heat pump water heater (HPWH) that meet the requirements of NEEA Advanced Water Heater Specification Tier Ill or higher, OR
4. A consumer electric water heater if the existing water heater is an electric resistance water heater, OR
5. A water-heating system determined by Executive Director to use no more energy than the one specified in item b or d above.
6. **Pipe Insulation:**

For newly installed and existing accessible piping, all domestic hot water heater piping shall be insulated as specified in Section 609.12 of the 2022 California Plumbing Code [per Section 150.0(j)1A]. Hot water pipe insulation shall have a minimum wall thickness of not less than the diameter of the pipe for a pipe up to 2" in diameter. Insulation wall thickness shall be not less than 2" for a pipe of 2" or more m diameter.Exceptions [per Section 150.0(j)1]:* 1. Piping that penetrates framing members shall not be required to have pipe insulation for the distance of the framing penetration. Piping that penetrates metal framing shall use grommets, plugs, wrapping or other insulating material to assure that no contact is made with the metal framing. Insulation shall butt securely against all framing members.
	2. Piping installed in interior or exterior walls shall not be required to have pipe insulation if all of the requirements are met for compliance with quality insulation installation (QII).
	3. Piping surrounded with a minimum of 1 inch of wall insulation, 2 inches of crawlspace insulation, or 4 inches attic insulation shall not be required to have pipe insulation.
1. **Distribution system:**

For circulation distribution system serving dwelling units, only demand circulation systems with manual on/off as specified in the Referenced Appendix RA4.4.9 shall be installed. |