**WHAT IS CLAIMED IS:**

1. An electro/hydraulic valve for use in a hydrocarbon production well, comprising:

a fluid chamber; and

an electro/thermal expansion pump having a fluid inlet and a fluid outlet, and further wherein an inlet check valve is positioned in fluid communication between the fluid chamber and the fluid inlet and an outlet check valve is positioned in fluid communication between the fluid outlet and a hydraulically controlled actuation member, the electro/thermal expansion pump configured to actuate the hydraulically controlled actuation member using an expansion of a fluid in the electro/thermal expansion pump.

2. The electro/hydraulic valve as recited in Claim 1, wherein the electro/thermal expansion pump is an induction heated electro/thermal expansion pump.

3. The electro/hydraulic valve as recited in Claim 1, wherein the electro/thermal expansion pump is a heating coil heated electro/thermal expansion pump.

4. The electro/hydraulic valve as recited in Claim 1, wherein the electro/thermal expansion pump is a thermoelectric module heated electro/thermal expansion pump.

5. The electro/hydraulic valve as recited in Claim 4, wherein the electro/thermal expansion pump is a first electro/thermal expansion pump having a first fluid inlet and a first fluid outlet, and further including a second electro/thermal expansion pump having a second fluid inlet and a second fluid outlet, and further wherein a second inlet check valve is positioned in fluid communication between the fluid chamber and the second fluid inlet, and a second

outlet check valve is positioned in fluid communication between the second fluid outlet and the hydraulically controlled actuation member, and further wherein a thermoelectric module is positioned between the first electro/thermal expansion pump and the second electro-thermal expansion pump so as to heat the first electro/thermal expansion pump while cooling the second electro-thermal expansion pump or heat the second electro/thermal expansion pump while cooling the first electro-thermal expansion pump.

6. The electro/hydraulic valve as recited in Claim 1, wherein the electro/thermal expansion pump is a first electro/thermal expansion pump having a first fluid inlet and a first fluid outlet, and further including a second electro/thermal expansion pump having a second fluid inlet and a second fluid outlet, and further wherein a second inlet check valve is positioned in fluid communication between the fluid chamber and the second fluid inlet and a second outlet check valve is positioned in fluid communication between the second fluid outlet and the hydraulically controlled actuation member.

7. The electro/hydraulic valve as recited in Claim 1, wherein the fluid chamber is a first fluid chamber and further including a second fluid chamber fluidly coupled to the first fluid chamber as part of a closed loop system, and further wherein the electro/thermal expansion pump is a first electro/thermal expansion pump having a first fluid inlet and a first fluid outlet, and further including a second electro/thermal expansion pump having a second fluid inlet and a second fluid outlet, and further wherein a second inlet check valve is positioned in fluid communication between the second fluid chamber and the second fluid inlet and a second outlet check valve is positioned in fluid communication between the second fluid outlet and the hydraulically controlled actuation member.

8. The electro/hydraulic valve as recited in Claim 1, further including a relief valve positioned in fluid communication between the outlet check valve and the hydraulically controlled actuation member.

9. The electro/hydraulic valve as recited in Claim 8, wherein the relief valve is a power to close type relief valve.

10. The electro/hydraulic valve as recited in Claim 1, wherein the hydraulically controlled actuation member is a piston.

11. An electrically surface-controlled subsurface safety valve, comprising:

an outer housing comprising a central bore extending axially through the outer housing, the central bore operable to convey subsurface production fluids there through;

a valve closure mechanism disposed proximate a downhole end of the central bore;

a bore flow management actuator disposed in the central bore;

a hydraulically controlled actuation member coupled to the bore flow management actuator, the hydraulically controlled actuation member operable to move the bore flow management actuator between a closed state and a flow state to engage or disengage the valve closure mechanism to determine a flow condition of the subsurface production fluids through the central bore; and

an electro/hydraulic valve fluidly coupled to the hydraulically controlled actuation member for movement thereof, the electro/hydraulic valve including;

a fluid chamber; and

an electro/thermal expansion pump having a fluid inlet and a fluid outlet, and further wherein an inlet check valve is positioned in fluid communication between the

fluid chamber and the fluid inlet and an outlet check valve is positioned in fluid communication between the fluid outlet and the hydraulically controlled actuation member, the electro/thermal expansion pump configured to actuate the hydraulically controlled actuation member using an expansion of a fluid in the electro/thermal expansion pump.

12. The electrically surface-controlled subsurface safety valve as recited in Claim 11, wherein the electro/thermal expansion pump is an induction heated electro/thermal expansion pump, a heating coil heated electro/thermal expansion pump, or a thermoelectric module heated electro/thermal expansion pump.

13. The electrically surface-controlled subsurface safety valve as recited in Claim 12, wherein the electro/thermal expansion pump is a first electro/thermal expansion pump having a first fluid inlet and a first fluid outlet, and further including a second electro/thermal expansion pump having a second fluid inlet and a second fluid outlet, and further wherein a second inlet check valve is positioned in fluid communication between the fluid chamber and the second fluid inlet, and a second outlet check valve is positioned in fluid communication between the second fluid outlet and the hydraulically controlled actuation member, and further wherein a thermoelectric module is positioned between the first electro/thermal expansion pump and the second electro-thermal expansion pump so as to heat the first electro/thermal expansion pump while cooling the second electro-thermal expansion pump or heat the second electro/thermal expansion pump while cooling the first electro-thermal expansion pump.

14. The electrically surface-controlled subsurface safety valve as recited in Claim 11, wherein the electro/thermal expansion pump is a first electro/thermal expansion pump

having a first fluid inlet and a first fluid outlet, and further including a second electro/thermal expansion pump having a second fluid inlet and a second fluid outlet, and further wherein a second inlet check valve is positioned in fluid communication between the fluid chamber and the second fluid inlet and a second outlet check valve is positioned in fluid communication between the second fluid outlet and the hydraulically controlled actuation member.

15. The electrically surface-controlled subsurface safety valve as recited in Claim 11, wherein the fluid chamber is a first fluid chamber and further including a second fluid chamber fluidly coupled to the first fluid chamber as part of a closed loop system, and further wherein the electro/thermal expansion pump is a first electro/thermal expansion pump having a first fluid inlet and a first fluid outlet, and further including a second electro/thermal expansion pump having a second fluid inlet and a second fluid outlet, and further wherein a second inlet check valve is positioned in fluid communication between the second fluid chamber and the second fluid inlet and a second outlet check valve is positioned in fluid communication between the second fluid outlet and the hydraulically controlled actuation member.

16. The electrically surface-controlled subsurface safety valve as recited in Claim 11, further including a power to close type relief valve positioned in fluid communication between the outlet check valve and the hydraulically controlled actuation member.

17. A method of operating a subsurface safety valve, comprising:

providing an electrically surface-controlled subsurface safety valve downhole within a wellbore, the surface-controlled subsurface safety valve including;

an outer housing comprising a central bore extending axially through the outer housing, the central bore operable to convey subsurface production fluids there through;

a valve closure mechanism disposed proximate a downhole end of the central bore;

a bore flow management actuator disposed in the central bore;

a hydraulically controlled actuation member coupled to the bore flow management actuator, the hydraulically controlled actuation member operable to move the bore flow management actuator between a closed state and a flow state to engage or disengage the valve closure mechanism to determine a flow condition of the subsurface production fluids through the central bore; and

an electro/hydraulic valve fluidly coupled to the hydraulically controlled actuation member for movement thereof, the electro/hydraulic valve including;

a fluid chamber; and

an electro/thermal expansion pump having a fluid inlet and a fluid outlet, and further wherein an inlet check valve is positioned in fluid communication between the fluid chamber and the fluid inlet and an outlet check valve is positioned in fluid communication between the fluid outlet and the hydraulically controlled actuation member, the electro/thermal expansion pump configured to actuate the hydraulically controlled actuation member using an expansion of a fluid in the electro/thermal expansion pump; and

sending power to the electro/thermal expansion pump to expand fluid located therein and axially urge the hydraulically controlled actuation member downhole to move the bore flow management actuator toward the flow state.

18. The method as recited in Claim 17, further including alternating between the sending power to the electro/thermal expansion pump and cutting power to the electro/thermal expansion pump to axially urge the hydraulically controlled actuation member downhole to move the bore flow management actuator to the flow state.

19. The method as recited in Claim 18, wherein cutting power to the electro/thermal expansion pump cools liquid remaining therein, thereby drawing additional new liquid from the fluid chamber through the inlet check valve to the electro/thermal expansion pump.

20. The method as recited in Claim 17, further including a power to close type relief valve positioned in fluid communication between the outlet check valve and the hydraulically controlled actuation member, the power to close type relief valve configured to relieve pressure on the hydraulically controlled actuation member if power is lost to the power to close type relief valve, and thus allow the bore flow management actuator to return to the closed state if power is lost to the power to close type relief valve.