Using Buffer Additives in CZE

When you add Modifiers (Buffer Additives) to your CZE method, the following changes can be expected:

Joule Heating: Adding high concentrations of organic modifiers or other additives can cause an increase in current or an increase in Joule Heating.
Viscosity: Adding high concentrations of additives such as methylcellulose will increase viscosity. Also this can cause a molecular sieving effect as well.
Electro Osmotic Flow: Depending on the additive, the EOF can be suppressed or enhanced but organic solvents usually lower the EOF.
Current: When using high concentrations of surfactants as an additive, this can cause a high current to be produced.
Analyte to Wall Interaction: Depending on the additive, this can prevent analyte to wall interaction or binding to the wall.
Migration Time: Depending on the additive, you can increase or decrease migration times. Additives are also used to change migration order.
Resolution: Additives can enhance your resolution and change your peak shape. Using additives permit indirection detection to take place.
Electrophoretic Mobility: Using additives can enhance analyte electrophoretic mobility.