Rule start stop and electricity plot

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A simplified ridge regression model is fitted

# Occupied period

## [1] "TN0088ZZ"  
## 47 x 1 sparse Matrix of class "dgCMatrix"  
## 1  
## F 19.49  
## AHU Cooling Failure----AHU -0.98  
## AHU Cooling Failure----HVAC .   
## AHU Cooling Valve Leaking----HVAC 0.14  
## AHU Cooling Valve Unstable----HVAC 0.25  
## AHU Damper Unstable----HV .   
## AHU Damper Unstable----HVAC -3.00  
## AHU Discharge Fan Unstable----HVAC .   
## AHU Discharge Temperature Setpoint Unreachable----HVAC 0.28  
## AHU Discharge Temperature Unstable----HVAC .   
## AHU Excessive Discharge Fan Speed----HVAC -0.04  
## AHU Heating Failure----HV .   
## AHU Heating Valve Leaking----HV .   
## AHU Heating Valve Leaking----HVAC .   
## AHU Heating Valve Unstable----HVAC .   
## AHU Outside Damper Stuck Closed----HVAC .   
## AHU Outside Damper Stuck Open----HVAC .   
## Bad Energy Data----DW 0.49  
## Bad Energy Data----NG 0.93  
## Boiler Cycling----HWS .   
## Chilled Water Pressure Setpoint Unreachable----CWS -0.25  
## Chilled Water Pressure Unstable----CWS .   
## Chiller Cycling----CWS .   
## Cooling Tower Temperature Setpoint Unreachable----TWR -3.20  
## Missing Data----AHU .   
## Missing Data----CWS .   
## Missing Data----DDT .   
## Missing Data----DW -0.03  
## Missing Data----EL -0.15  
## Missing Data----GBL .   
## Missing Data----HV .   
## Missing Data----HVAC .   
## Missing Data----NG -0.78  
## Missing Data----TWR .   
## Missing Data----VAV .   
## Occupied Cooling Setpoint Out of Range----AHU 0.02  
## Occupied Cooling Setpoint Out of Range----HVAC -0.56  
## Occupied Zone Temperature Out of Range----AHU 0.22  
## Occupied Zone Temperature Out of Range----HVAC 0.07  
## Pump Cycling----CWS .   
## Sensor Failure----DDT .   
## Sensor Failure----HVAC .   
## Sensor Out Of Range----CWS -0.53  
## Sensor Out Of Range----DDT .   
## Sensor Out Of Range----HV .   
## Sensor Out Of Range----HVAC .   
## Sensor Out Of Range----TWR .

After getting the served area, we can fit another model with percent area as follows