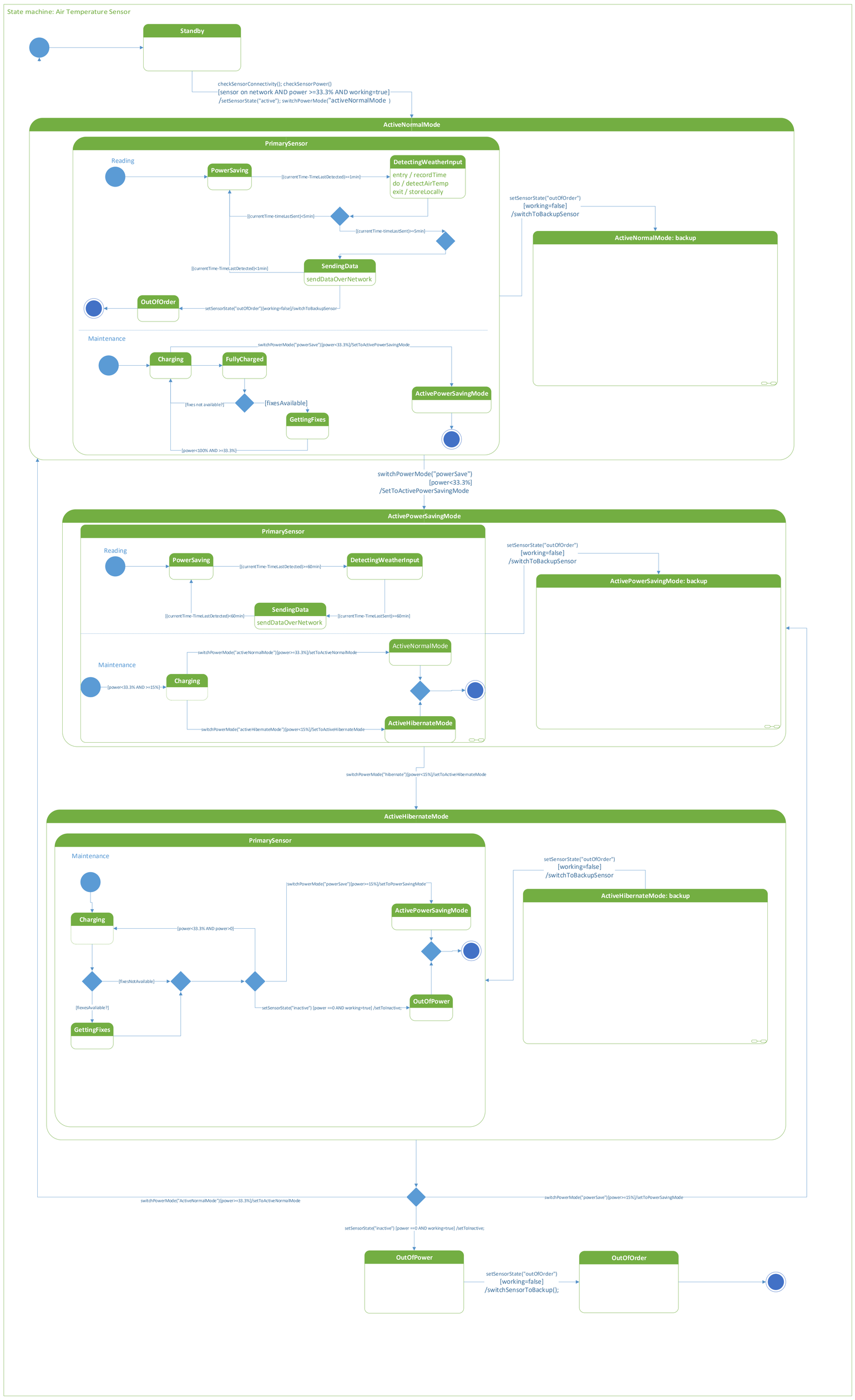
State machine: Air Temperature Sensor
Standby
checkSensorConnectivity(); checkSensorPower()
[sensor on network AND power >=33.3% AND working=true]
/setSensorState("active"); switchPowerMode("activeNormalMode)
ActiveNormalMode
PrimarySensor
Reading
PowerSaving
[(currentTime-TimeLastDetected)>=1min]
DetectingWeatherInput
entry / recordTime
do / detectAirTemp
exit / storeLocally
[(currentTime-timeLastSent)<5min]
[(currentTime-timeLastSent)>=5min]
SendingData
sendDataOverNetwork
[(currentTime-TimeLastDetected)<1min]
OutOfOrder
setSensorState("outOfOrder")[working=false]/switchToBackupSensor
Maintenance
switchPowerMode("powerSave")[power<33.3%]/SetToActivePowerSavingMode
Charging
FullyCharged
[fixes not available?]
[fixesAvailable]
GettingFixes
ActivePowerSavingMode
[power<100% AND >=33.3%]
setSensorState("outOfOrder")
[working=false]
/switchToBackupSensor
ActiveNormalMode: backup
switchPowerMode("powerSave")
[power<33.3%]
/SetToActivePowerSavingMode
ActivePowerSavingMode
PrimarySensor
Reading
PowerSaving
[(currentTime-TimeLastDetected)>=60min]
DetectingWeatherInput
[(currentTime-TimeLastDetected)<60min]
SendingData
sendDataOverNetwork
[(currentTime-TimeLastSent)>=60min]
setSensorState("outOfOrder")
[working=false]
/switchToBackupSensor
ActivePowerSavingMode: backup
Maintenance
switchPowerMode("activeNormalMode")[power>=33.3%]/setToActiveNormalMode
ActiveNormalMode
Charging
[power<33.3% AND >=15%]
switchPowerMode("activeHibernateMode")[power<15%]/SetToActiveHibernateMode
ActiveHibernateMode
switchPowerMode("hibernate")[power<15%]/setToActiveHibernateMode
ActiveHibernateMode
PrimarySensor
Maintenance
Charging
[power<33.3% AND power>0]
switchPowerMode("powerSave")[power>=15%]/setToPowerSavingMode
ActivePowerSavingMode
[fixesNotAvailable]
[fixesAvaliable?]
GettingFixes
setSensorState("inactive") [power ==0 AND working=true] /setToInactive;
OutOfPower
setSensorState("outOfOrder")
[working=false]
/switchToBackupSensor
ActiveHibernateMode: backup
switchPowerMode("ActiveNormalMode")[power>=33.3%]/setToActiveNormalMode
switchPowerMode("powerSave")[power>=15%]/setToPowerSavingMode
setSensorState("inactive") [power ==0 AND working=true] /setToInactive;
OutOfPower
setSensorState("outOfOrder")
[working=false]
/switchSensorToBackup();
OutOfOrder