

IEEE P802.3af D4.1

Clause 30 attributes relation to State
Machine behaviour

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PSE Disabled

33.2.3.7 State diagrams

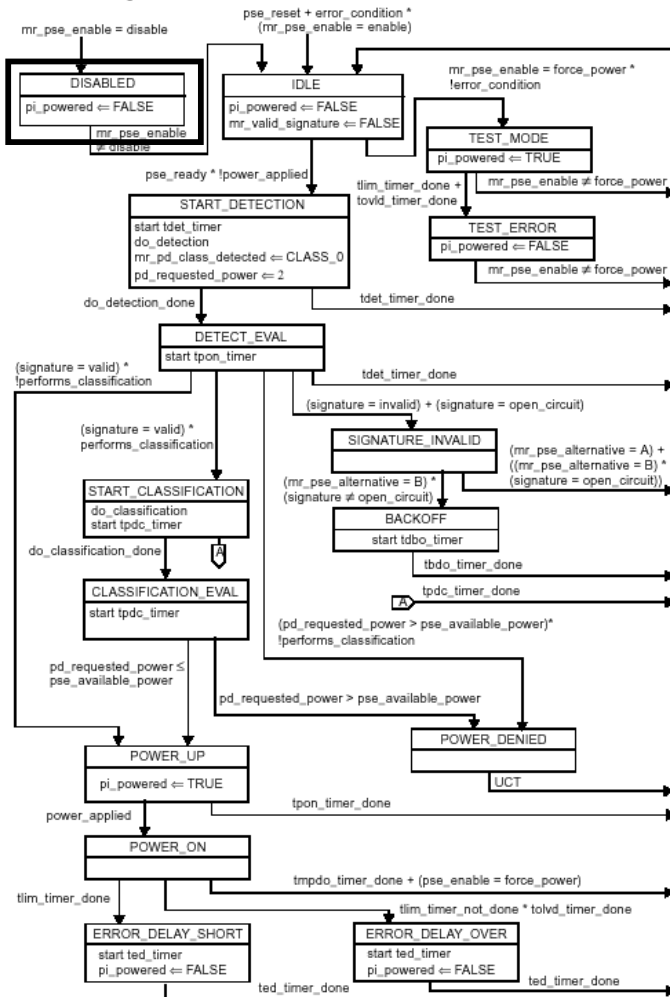


Figure 33-6—PSE state diagram

oPSE managed object class (30.9.5)				
aPSEID	ATTRIBUTE	GET	X	
aPSEAdminState	ATTRIBUTE	GET	X	
aPSEPowerPairsControlAbility	ATTRIBUTE	GET	X	
aPSEPowerPairs	ATTRIBUTE	GET-SET	X	
aPSEPowerDetectionStatus	ATTRIBUTE	GET	X	
aPSEPowerClassification	ATTRIBUTE	GET		X
aPSEPowerMaintenanceStatus	ATTRIBUTE	GET		X
aPSEInvalidSignatureCounter	ATTRIBUTE	GET		X
aPSEPowerDeniedCounter	ATTRIBUTE	GET		X
aPSEOverLoadCounter	ATTRIBUTE	GET		X
aPSEShortCounter	ATTRIBUTE	GET		X
aPSEMPSAbsentCounter	ATTRIBUTE	GET		X
acPSEAdminControl	ACTION			X

Attribute

aPSEPowerDetectionStatus
aPSEPowerMaintenanceStatus
aPSEInvalidSignatureCounter
aPSEPowerDeniedCounter
aPSEOverLoadCounter
aPSEShortCounter
aPSEMPSAbsentCounter

Enumeration/State

disabled
MPSAbsent
Not incrementing
Not incrementing
Not incrementing
Not incrementing
Not incrementing

No Signature/Invalid Signature

33.2.3.7 State diagrams

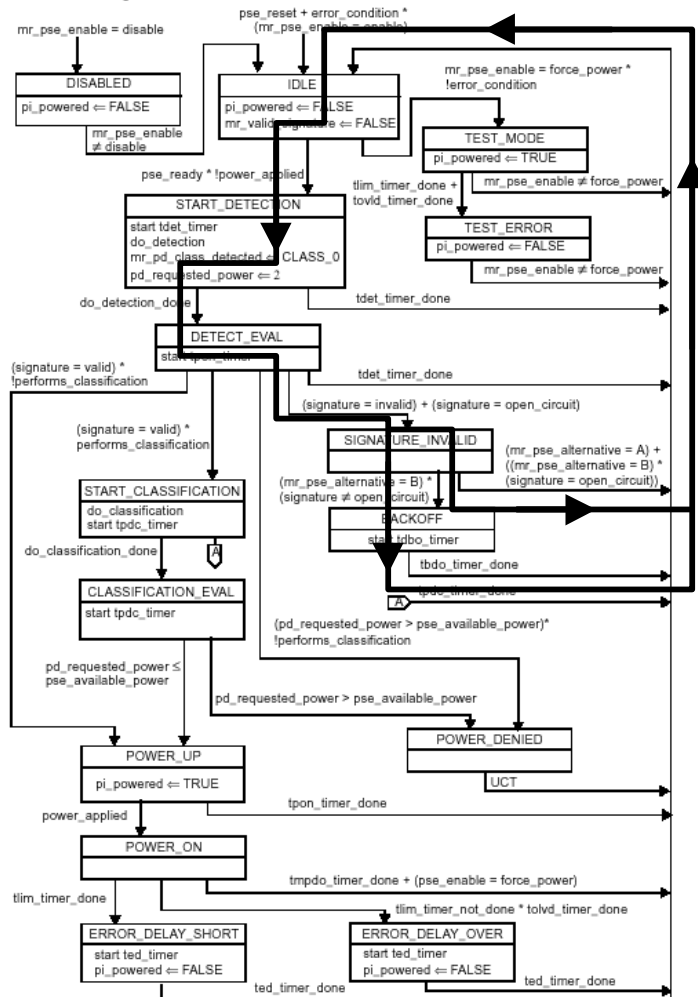


Figure 33-6—PSE state diagram

oPSE managed object class (30.9.5)				
aPSEID	ATTRIBUTE	GET	X	
aPSEAdminState	ATTRIBUTE	GET	X	
aPSEPowerPairsControlAbility	ATTRIBUTE	GET	X	
aPSEPowerPairs	ATTRIBUTE	GET-SET	X	
aPSEPowerDetectionStatus	ATTRIBUTE	GET	X	
aPSEPowerClassification	ATTRIBUTE	GET	X	
aPSEPowerMaintenanceStatus	ATTRIBUTE	GET	X	
aPSEInvalidSignatureCounter	ATTRIBUTE	GET	X	
aPSEPowerDeniedCounter	ATTRIBUTE	GET	X	
aPSEOverLoadCounter	ATTRIBUTE	GET	X	
aPSEShortCounter	ATTRIBUTE	GET	X	
aPSEMPSAbsentCounter	ATTRIBUTE	GET	X	
acPSEAdminControl	ACTION		X	

Attribute

aPSEPowerDetectionStatus
aPSEPowerMaintenanceStatus
aPSEInvalidSignatureCounter
aPSEPowerDeniedCounter
aPSEOverLoadCounter
aPSEShortCounter
aPSEMPSAbsentCounter

Enumeration/State

searching
MPSAbsent
Incrementing
Not incrementing
Not incrementing
Not incrementing
Not incrementing

Power denied

33.2.3.7 State diagrams

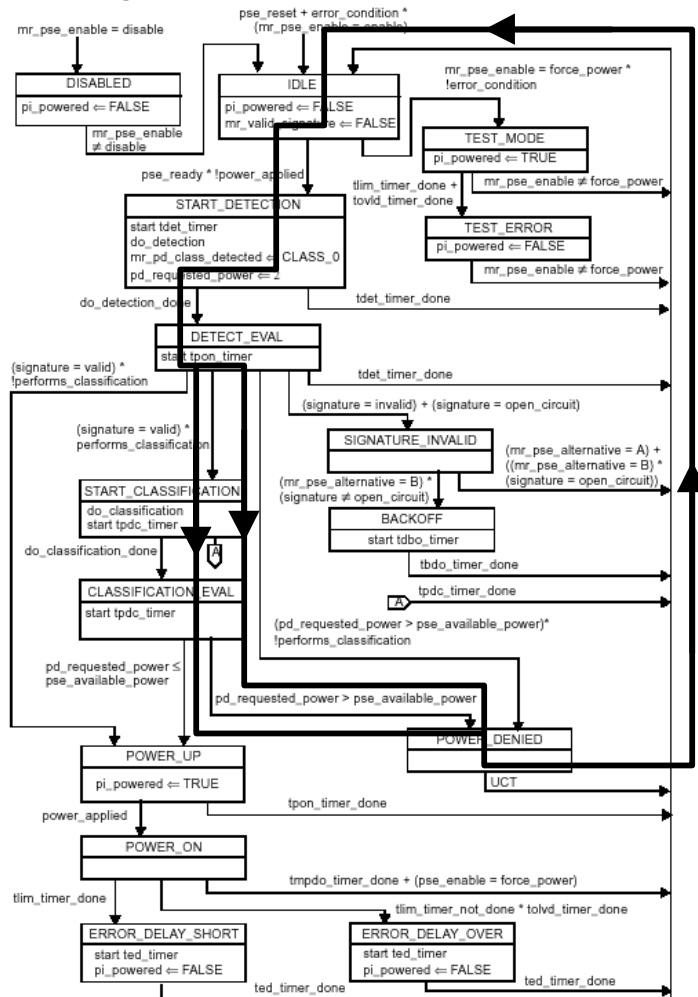


Figure 33-6—PSE state diagram

oPSE managed object class (30.9.5)				
aPSEID	ATTRIBUTE	GET	X	
aPSEAdminState	ATTRIBUTE	GET	X	
aPSEPowerPairsControlAbility	ATTRIBUTE	GET	X	
aPSEPowerPairs	ATTRIBUTE	GET-SET	X	
aPSEPowerDetectionStatus	ATTRIBUTE	GET	X	
aPSEPowerClassification	ATTRIBUTE	GET		X
aPSEPowerMaintenanceStatus	ATTRIBUTE	GET		X
aPSEInvalidSignatureCounter	ATTRIBUTE	GET		X
aPSEPowerDeniedCounter	ATTRIBUTE	GET		X
aPSEOverLoadCounter	ATTRIBUTE	GET		X
aPSEShortCounter	ATTRIBUTE	GET		X
aPSEMPSAbsentCounter	ATTRIBUTE	GET		X
acPSEAdminControl	ACTION			X

Attribute

aPSEPowerDetectionStatus
aPSEPowerMaintenanceStatus
aPSEInvalidSignatureCounter
aPSEPowerDeniedCounter
aPSEOverLoadCounter
aPSEShortCounter
aPSEMPSAbsentCounter

Enumeration/State

searching
MPSAbsent
Not incrementing
Incrementing
Not incrementing
Not incrementing
Not incrementing

PD removing Maintain Power Signature

33.2.3.7 State diagrams

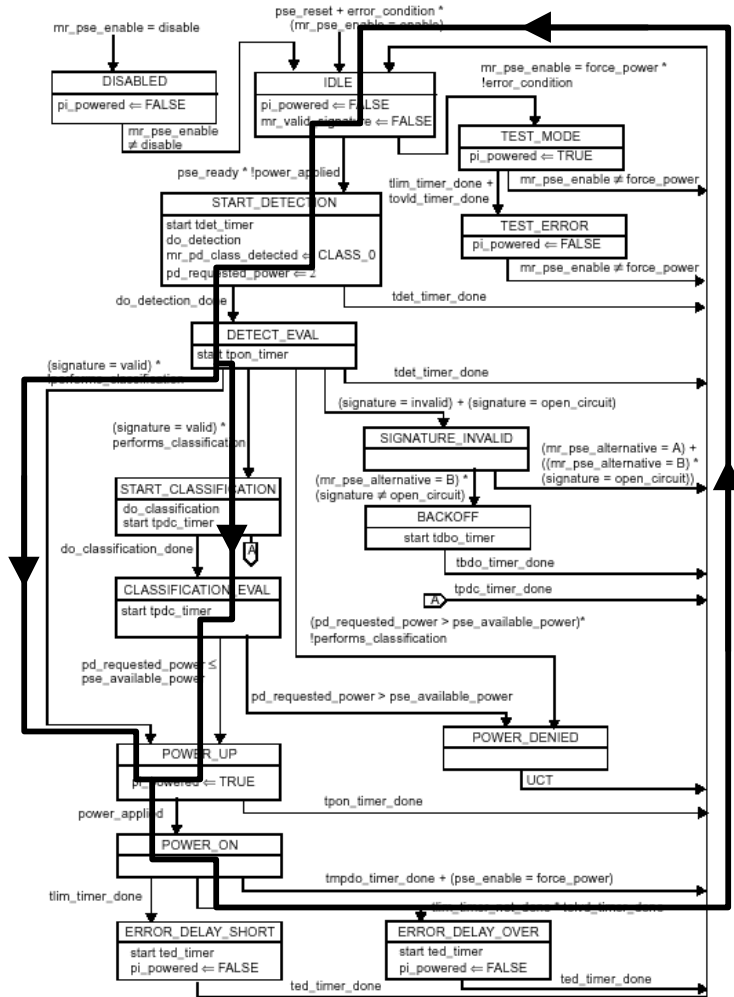


Figure 33-6—PSE state diagram

oPSE managed object class (30.9.5)				
aPSEID	ATTRIBUTE	GET	X	
aPSEAdminState	ATTRIBUTE	GET	X	
aPSEPowerPairsControlAbility	ATTRIBUTE	GET	X	
aPSEPowerPairs	ATTRIBUTE	GET-SET	X	
aPSEPowerDetectionStatus	ATTRIBUTE	GET	X	
aPSEPowerClassification	ATTRIBUTE	GET		X
aPSEPowerMaintenanceStatus	ATTRIBUTE	GET		X
aPSEInvalidSignatureCounter	ATTRIBUTE	GET		X
aPSEPowerDeniedCounter	ATTRIBUTE	GET		X
aPSEOverLoadCounter	ATTRIBUTE	GET		X
aPSEShortCounter	ATTRIBUTE	GET		X
aPSEMPSAbsentCounter	ATTRIBUTE	GET		X
acPSEAdminControl	ACTION			X

Attribute

aPSEPowerDetectionStatus

aPSEPowerMaintenanceStatus
aPSEInvalidSignatureCounter
aPSEPowerDeniedCounter
aPSEOverLoadCounter
aPSEShortCounter
aPSEMPSAbsentCounter

Enumeration/State

searching/
deliveringPower
MPSAbsent
Not incrementing
Not incrementing
Not incrementing
Not incrementing
Incrementing

Short Circuit

33.2.3.7 State diagrams

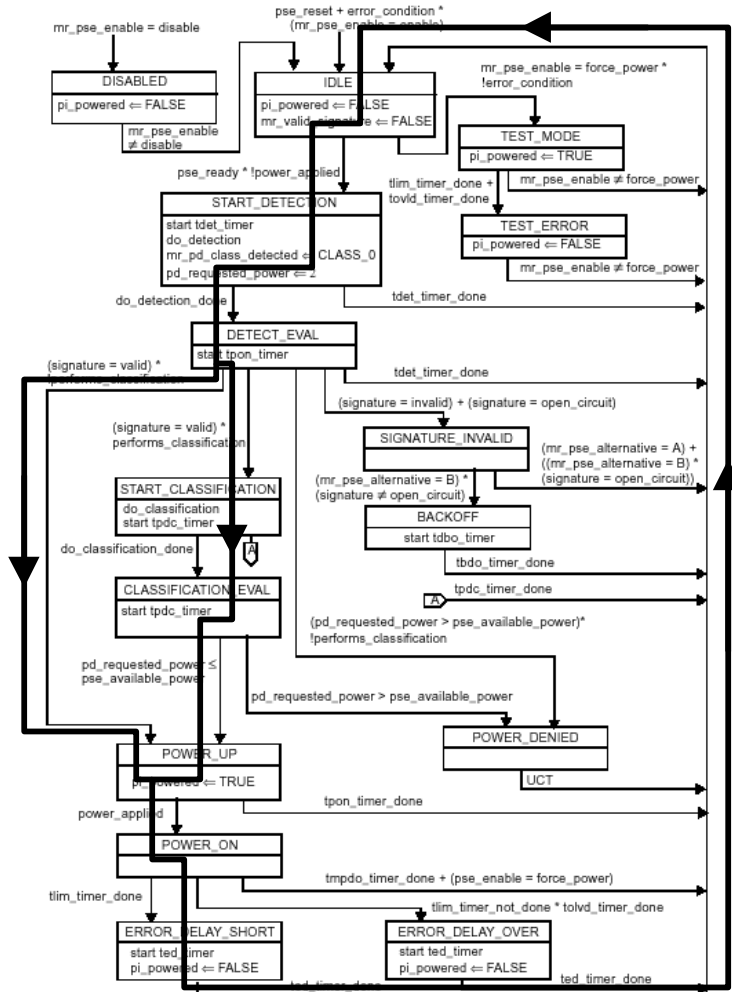


Figure 33-6—PSE state diagram

oPSE managed object class (30.9.5)				
aPSEID	ATTRIBUTE	GET	X	
aPSEAdminState	ATTRIBUTE	GET	X	
aPSEPowerPairsControlAbility	ATTRIBUTE	GET	X	
aPSEPowerPairs	ATTRIBUTE	GET-SET	X	
aPSEPowerDetectionStatus	ATTRIBUTE	GET	X	
aPSEPowerClassification	ATTRIBUTE	GET	X	
aPSEPowerMaintenanceStatus	ATTRIBUTE	GET	X	
aPSEInvalidSignatureCounter	ATTRIBUTE	GET	X	

30.9.5.1.5 aPSEPowerDetectionStatus

NOTE—A derivative attribute may wish to apply a delay to the use of the 'deliveringPower' enumeration as the PSE state diagram will enter then quickly exit the POWER_ON state if a short-circuit or overcurrent condition is present when power is first applied.;

Attribute	Enumeration/State
aPSEPowerDetectionStatus	searching/ deliveringPower
aPSEPowerMaintenanceStatus	MPSAbsent/ok
aPSEInvalidSignatureCounter	Not incrementing
aPSEPowerDeniedCounter	Not incrementing
aPSEOverLoadCounter	Not incrementing
aPSEShortCounter	Incrementing
aPSEMPSAbsentCounter	Not incrementing

Overload

33.2.3.7 State diagrams

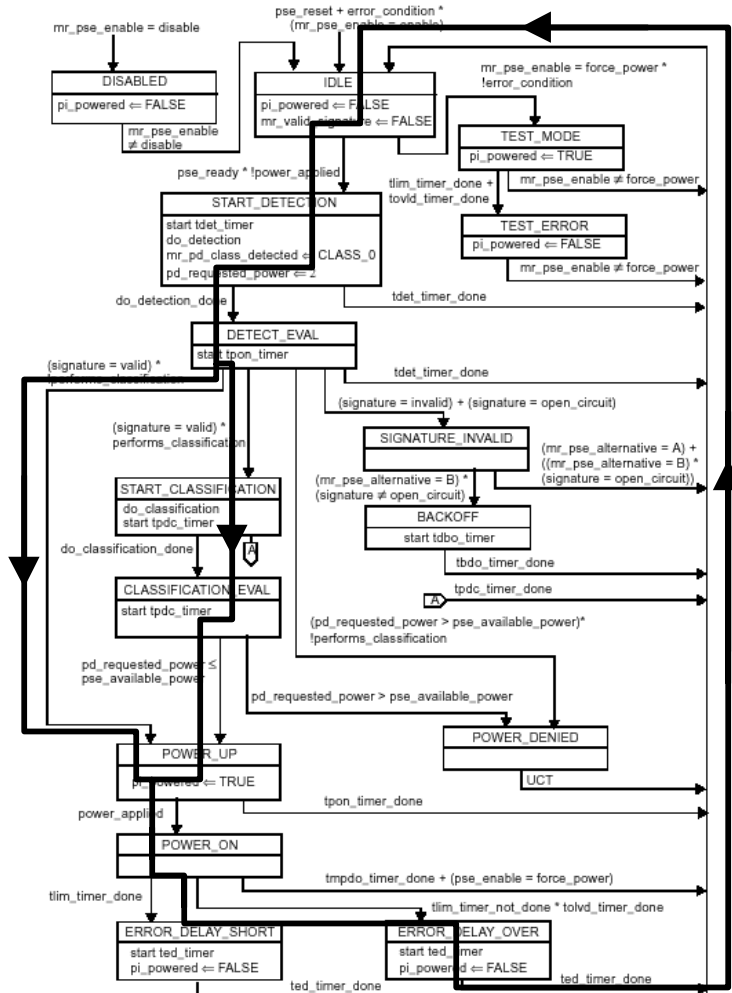


Figure 33-6—PSE state diagram

oPSE managed object class (30.9.5)				
aPSEID	ATTRIBUTE	GET	X	
aPSEAdminState	ATTRIBUTE	GET	X	
aPSEPowerPairsControlAbility	ATTRIBUTE	GET	X	
aPSEPowerPairs	ATTRIBUTE	GET-SET	X	
aPSEPowerDetectionStatus	ATTRIBUTE	GET	X	
aPSEPowerClassification	ATTRIBUTE	GET		X
aPSEPowerMaintenanceStatus	ATTRIBUTE	GET		X
aPSEInvalidSignatureCounter	ATTRIBUTE	GET		X

30.9.5.1.5 aPSEPowerDetectionStatus

NOTE—A derivative attribute may wish to apply a delay to the use of the 'deliveringPower' enumeration as the PSE state diagram will enter then quickly exit the POWER_ON state if a short-circuit or overcurrent condition is present when power is first applied.;

Attribute	Enumeration/State
aPSEPowerDetectionStatus	searching/ deliveringPower
aPSEPowerMaintenanceStatus	MPSAbsent/ok
aPSEInvalidSignatureCounter	Not incrementing
aPSEPowerDeniedCounter	Not incrementing
aPSEOverLoadCounter	Incrementing
aPSEShortCounter	Not incrementing
aPSEMPSAbsentCounter	Not incrementing

PSE in Force Power Test Mode

33.2.3.7 State diagrams

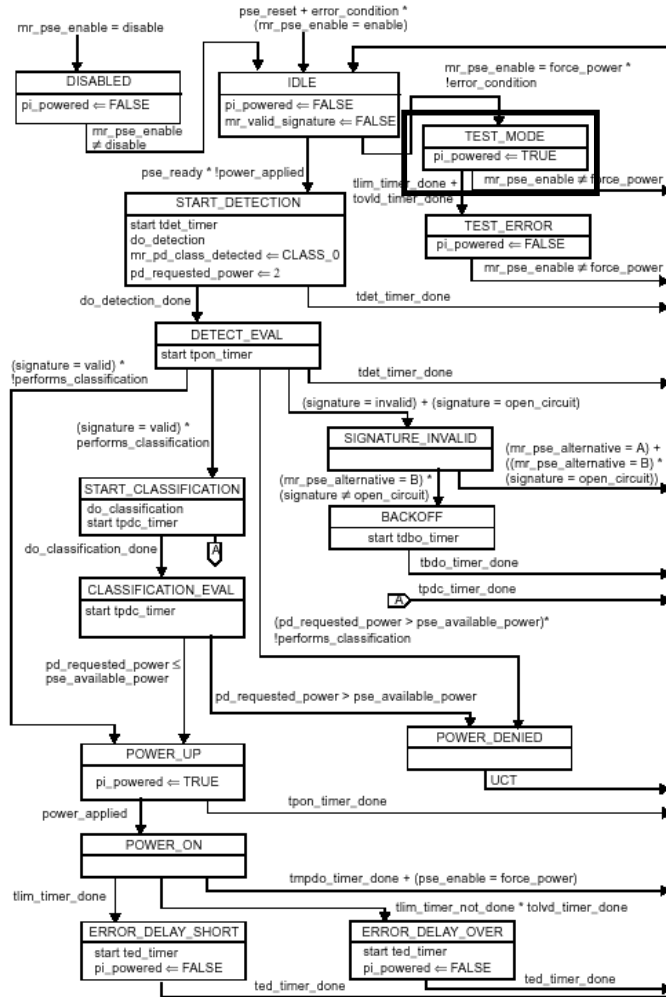


Figure 33-6—PSE state diagram

oPSE managed object class (30.9.5)				
aPSEID	ATTRIBUTE	GET	X	
aPSEAdminState	ATTRIBUTE	GET	X	
aPSEPowerPairsControlAbility	ATTRIBUTE	GET	X	
aPSEPowerPairs	ATTRIBUTE	GET-SET	X	
aPSEPowerDetectionStatus	ATTRIBUTE	GET	X	
aPSEPowerClassification	ATTRIBUTE	GET		X
aPSEPowerMaintenanceStatus	ATTRIBUTE	GET		X
aPSEInvalidSignatureCounter	ATTRIBUTE	GET		X
aPSEPowerDeniedCounter	ATTRIBUTE	GET		X
aPSEOverLoadCounter	ATTRIBUTE	GET		X
aPSEShortCounter	ATTRIBUTE	GET		X
aPSEMPSAbsentCounter	ATTRIBUTE	GET		X
acPSEAdminControl	ACTION			X

Attribute

aPSEPowerDetectionStatus
aPSEPowerMaintenanceStatus
aPSEInvalidSignatureCounter
aPSEPowerDeniedCounter
aPSEOverLoadCounter
aPSEShortCounter
aPSEMPSAbsentCounter

Enumeration/State

test
MPSAbsent
Not incrementing
Not incrementing
Not incrementing
Not incrementing
Not incrementing

PSE in Force Power Test Mode with Fault

33.2.3.7 State diagrams

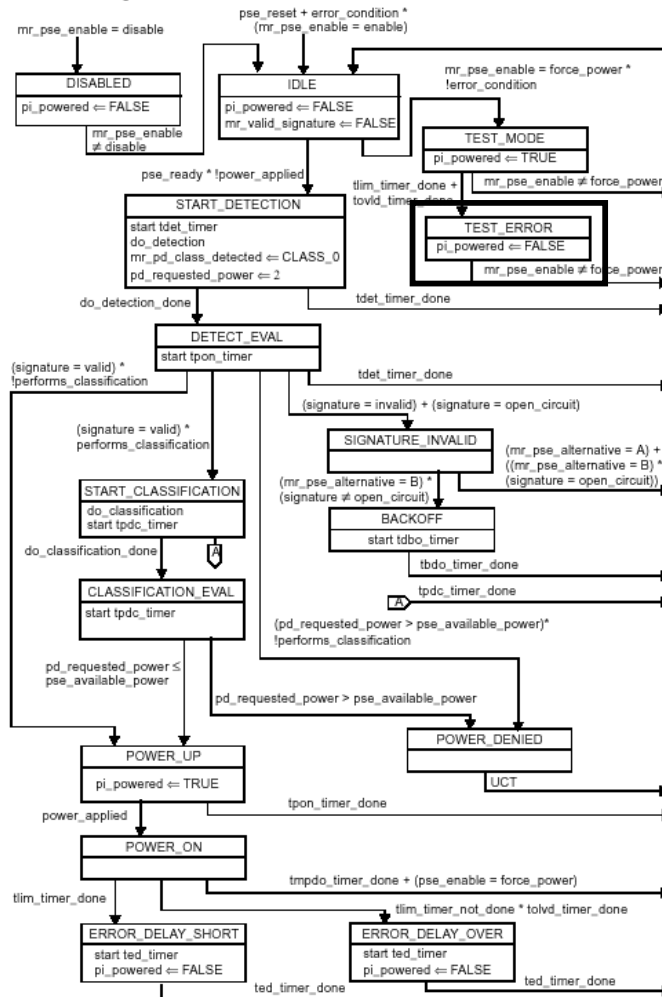


Figure 33-6—PSE state diagram

oPSE managed object class (30.9.5)				
aPSEID	ATTRIBUTE	GET	X	
aPSEAdminState	ATTRIBUTE	GET	X	
aPSEPowerPairsControlAbility	ATTRIBUTE	GET	X	
aPSEPowerPairs	ATTRIBUTE	GET-SET	X	
aPSEPowerDetectionStatus	ATTRIBUTE	GET	X	
aPSEPowerClassification	ATTRIBUTE	GET		X
aPSEPowerMaintenanceStatus	ATTRIBUTE	GET		X
aPSEInvalidSignatureCounter	ATTRIBUTE	GET		X
aPSEPowerDeniedCounter	ATTRIBUTE	GET		X
aPSEOverLoadCounter	ATTRIBUTE	GET		X
aPSEShortCounter	ATTRIBUTE	GET		X
aPSEMPSAbsentCounter	ATTRIBUTE	GET		X
acPSEAdminControl	ACTION			X

Attribute

aPSEPowerDetectionStatus
aPSEPowerMaintenanceStatus
aPSEInvalidSignatureCounter
aPSEPowerDeniedCounter
aPSEOverLoadCounter
aPSEShortCounter
aPSEMPSAbsentCounter

Enumeration/State

fault
MPSAbsent
Not incrementing
Not incrementing
Not incrementing
Not incrementing
Not incrementing

PSE with Implementation specific fault

33.2.3.7 State diagrams

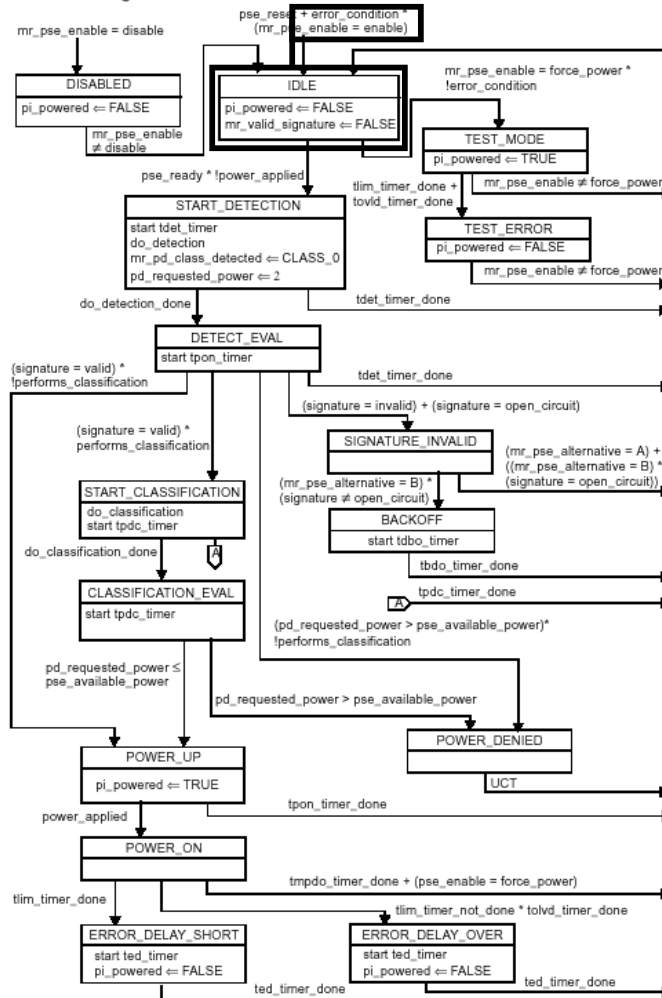


Figure 33-6—PSE state diagram

oPSE managed object class (30.9.5)				
aPSEID	ATTRIBUTE	GET	X	
aPSEAdminState	ATTRIBUTE	GET	X	
aPSEPowerPairsControlAbility	ATTRIBUTE	GET	X	
aPSEPowerPairs	ATTRIBUTE	GET-SET	X	
aPSEPowerDetectionStatus	ATTRIBUTE	GET	X	
aPSEPowerClassification	ATTRIBUTE	GET		X
aPSEPowerMaintenanceStatus	ATTRIBUTE	GET		X
aPSEInvalidSignatureCounter	ATTRIBUTE	GET		X
aPSEPowerDeniedCounter	ATTRIBUTE	GET		X
aPSEOverLoadCounter	ATTRIBUTE	GET		X
aPSEShortCounter	ATTRIBUTE	GET		X
aPSEMPSAbsentCounter	ATTRIBUTE	GET		X
acPSEAdminControl	ACTION			X

Attribute

aPSEPowerDetectionStatus
aPSEPowerMaintenanceStatus
aPSEInvalidSignatureCounter
aPSEPowerDeniedCounter
aPSEOverLoadCounter
aPSEShortCounter
aPSEMPSAbsentCounter

Enumeration/State

otherFault
MPSAbsent
Not incrementing
Not incrementing
Not incrementing
Not incrementing
Not incrementing