145.2.5.6 Functions

The variable formed by the function name appended with "_done" is used to indicate when the function has completed. This variable is set to FALSE when the function is called and is set to TRUE once the function is complete and its output variables are valid.

do_autoclass_measure

This function measures $P_{Autoclass}$ as defined in 145.2.7.2.This function returns the following variable:

P_AUTOCLASS: The maximum power measured by the PSE, $P_{Autoclass}$.

do_autoclassification

This function returns the following variables:

pd_autoclass: This variable indicates whether the PD requests Autoclass during Physical Layer classification. pd_autoclass is set to True when a class signature of '0' is detected during the T_{Class_ACS} window, as defined in Table 145–14, otherwise it is set to False.

Values:

- FALSE: The PD does not request Autoclass.
- TRUE: The PD requests Autoclass.

do_cxn_chk

This function initiates the Connection Check as specified in 145.2.6.1. This function returns the following variable:

sig_type: This variable indicates the Type of PD signature connected to the PI, with respect to 4-pair operation.

Values:

- invalid: Neither a single-signature PD nor a dual-signature PD connection check signature has been found. This includes an open circuit condition.
- single: The PSE has determined there is a single-signature PD configuration connected to the PI.
- dual: The PSE has determined there is a dual-signature PD configuration connected to the PI.

do_class_probe

This functions discovers the requested Class of the PD by producing a number of classification events. This function returns the following variables:

pd req pwr probe: This variable contains the requested Class of the PD.

Values:

0: Class 0
1: Class 1
2: Class 2
3: Class 3
4: Class 4
5: Class 5
6: Class 6
7: Class 7
8: Class 8

Change to "pd_req_pwr"

This allows the function to return the result of class proving into the same variable that collects this information in the normal classification flow.

do_class_reset_pri

This function produces the classification reset voltage on the Primary Alternative; See V_{Reset} in Table 145–14. This function does not return any variables.

do_class_reset_sec

This function produces the classification reset voltage on the Secondary Alternative; See V_{Reset} in Table 145–14. This function does not return any variables.

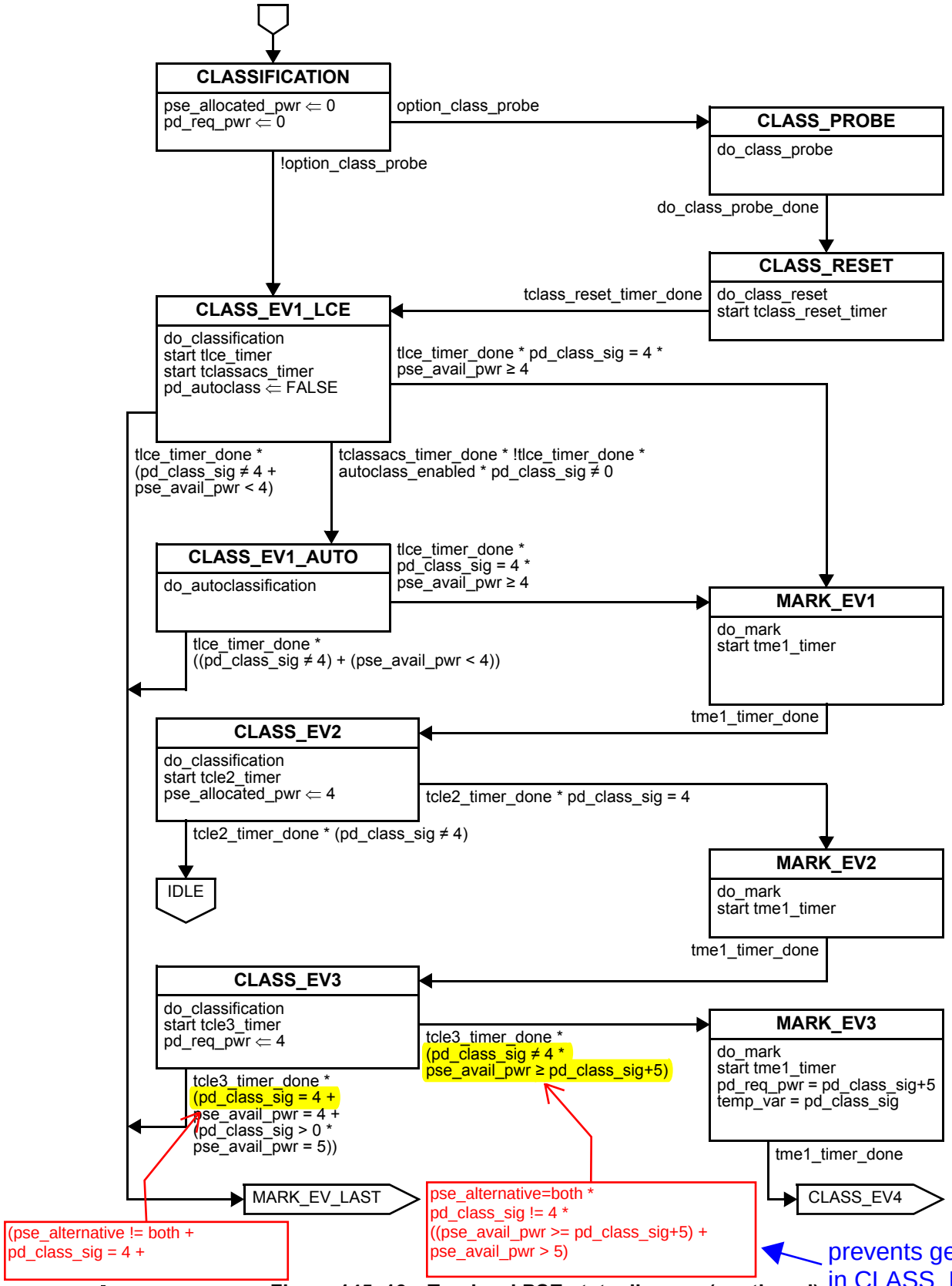

Figure 145–13—Top level PSE state diagram (continued)

More than 3 class events only possible if pse_alternative=both, this further implies that 4P powering is possible.

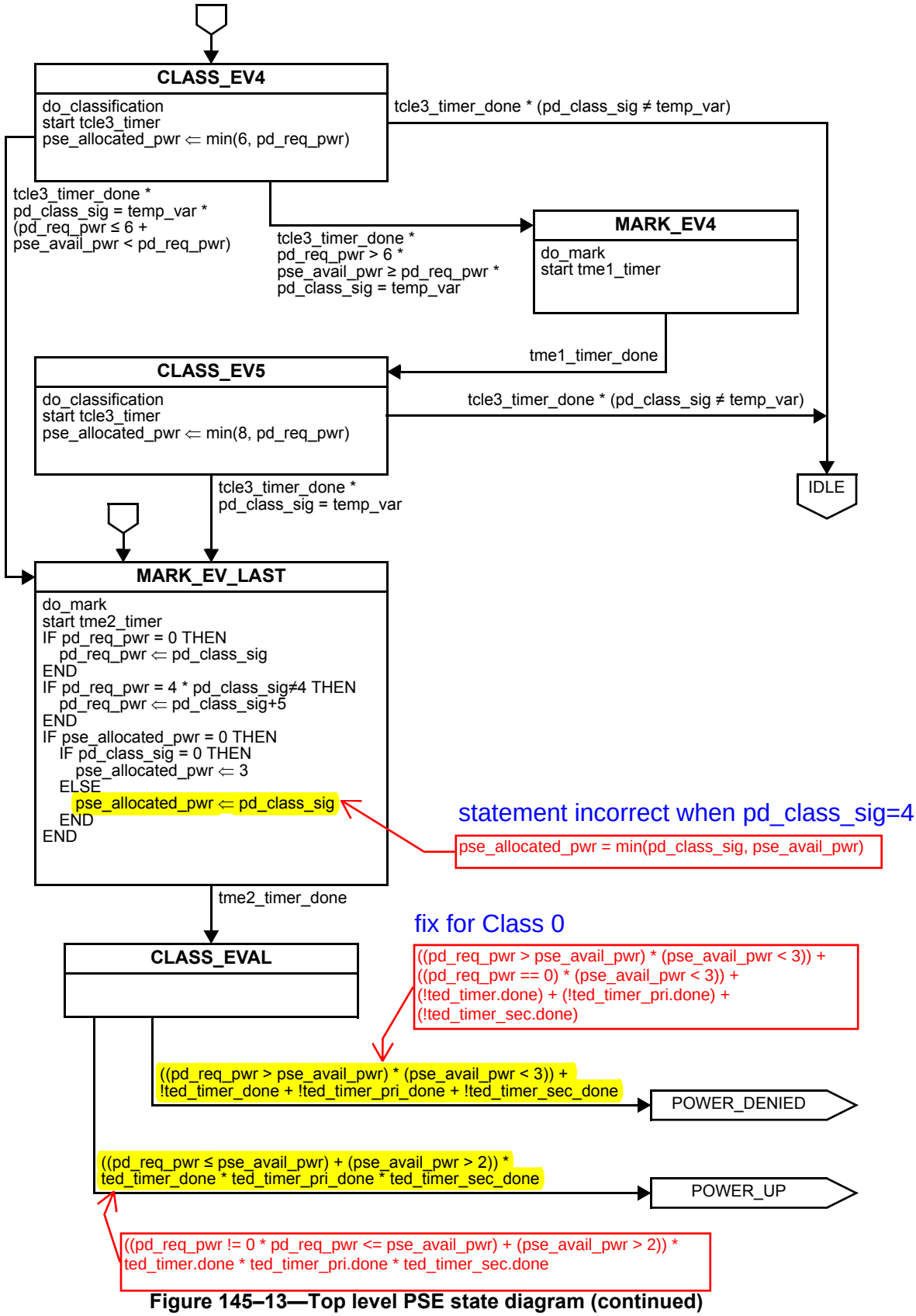

Figure 145–13—Top level PSE state diagram (continued)

fix for Class 0