additive nature of the NPV metric and since the focus is on evaluating investment vs revenues, by maximizing Eq. (25), a fully comprehensive NPV metric is equivalently improved.

The model of Eq. (18) with modified objective function Eq. (25), embedded in the NSH Algorithm 1 with NPV as the target function is executed in three runs. For the first run the number of turbines is fixed to \( n_{\text{min}} = n_{\text{max}} = 10 \), while for the second the number of turbines remains fixed but is increased to \( n_{\text{min}} = n_{\text{max}} = 50 \). For the third run the number of wind turbines is allowed to vary between \( n_{\text{min}} = 10 \) and \( n_{\text{max}} = 50 \). The Algorithm 1 input parameters are \( C = \{467, 590, 1014\} \), \( T = \{1, 1.5, 2\} \) h, \( V = \{2, 4, 6, 8, 24\} \). The results are plotted in Figure 11.

**Figure 11.** Evolution of the AEP, NPV, and number of WTs for the three simulations. The green lines are results for the optimization program with fixed number of WTs equal to 10, the blue ones equal to 50, and the black ones for the optimization program with variable number of WTs between 10 and 50.

When the number of turbines is fixed to 10, the NPV evolution (green line in Fig. 11b) is driven by the AEP (green line in Fig. 11a). Both curves are monotonically increasing, reaching a final value of NPV of \( 456.40 \) mEUR. The same behaviour is visible for \( n_T = 50 \), although the final NPV is greater (683.53 mEUR), see blue line Figure 11b. In the second study, the positive difference in DCF from the revenues surpasses the associated extra investment costs from the additional 40 wind