

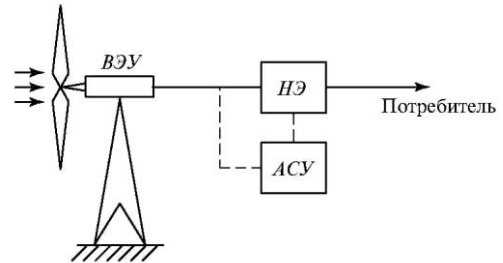
## RENEWABLE ENERGY SOURCES

### 8.2. Wind power plants (WPPs)

#### 8.2.2. Autonomous WPPs

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The most progressive technology of wind power application in Russia, at least nowadays and in the nearest future, is use of WEIs for autonomous power supply of consumers in the distant areas. However, owing to wind variability and its complete absence, capacity of WEIs changes or goes down to zero, that it is unacceptable for consumer. Therefore, application of WEIs requires using either electrical accumulators, or joint operation with power installation at any traditional energy carrier. A block-diagram of autonomous power supply of consumer from WEI with application of power accumulator is shown in fig. 8.7. Such a scheme can be used for ensuring comparatively low load (units of kilowatts).



**Fig. 8.7. A block-diagram of autonomous power supply of consumer by WEI:**

*BЭУ=WEI* — power installation; *АСУ=ACS* — autonomous control system; *HA=PA* — power accumulator; потребитель - consumer