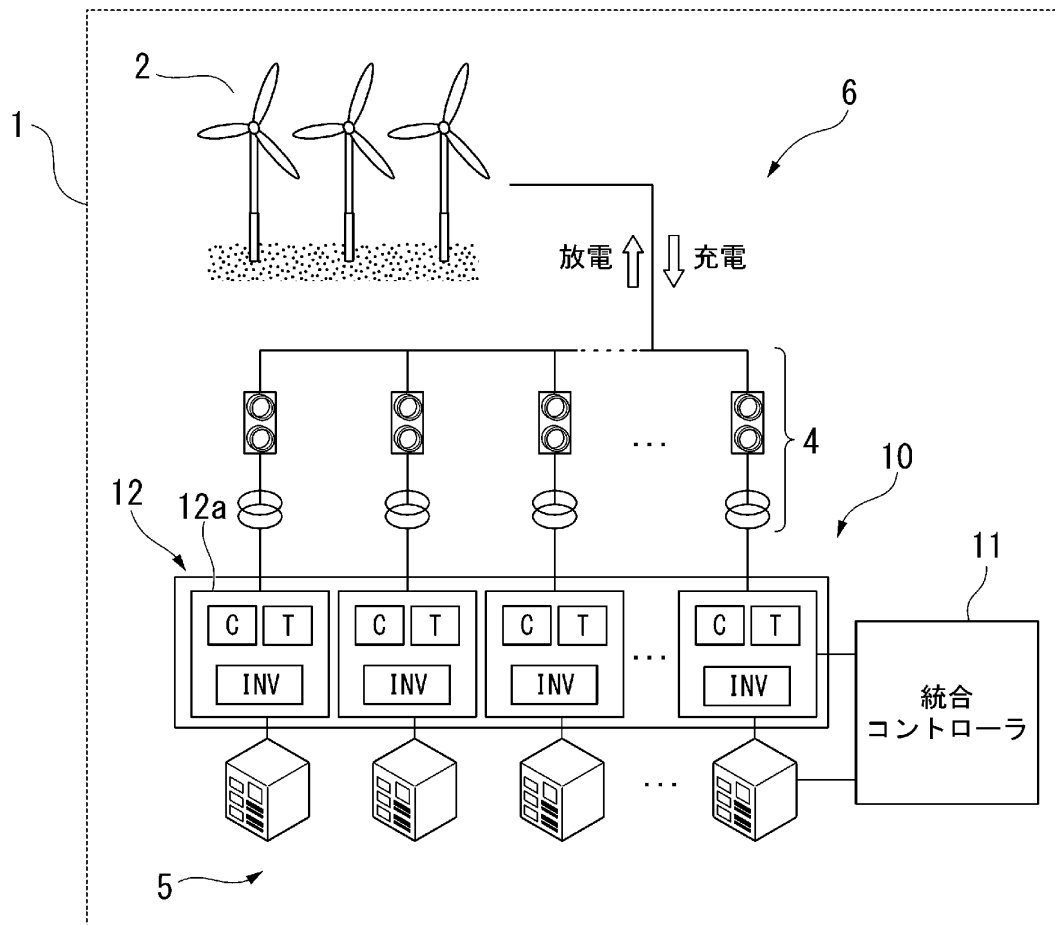
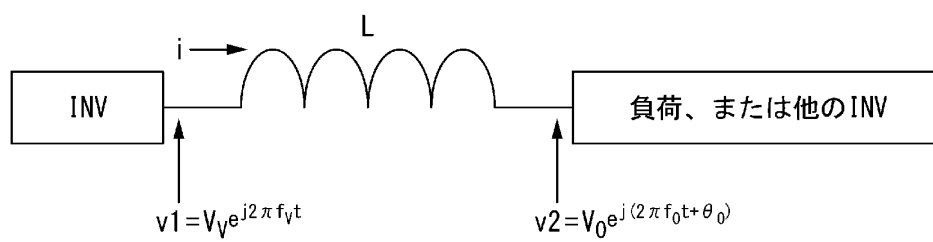


[図1]



[図2]



The diagram illustrates a control system for a power converter, featuring two main feedback loops and a feedforward path. The system is divided into two main sections by a dashed line labeled 'C'.

Top Section (Control Loop):

- Reference Input:** q_{ref} is the reference input for the top loop.
- Feedback Path:** The output $q_{measure}$ is fed back through a Zero-Order Hold (ZOH) block and a gain block $B11$ to a summing junction.
- Feedforward Path:** The reference input q_{ref} is also fed forward through a ZOH block and a gain block $B12$ to the same summing junction.
- Summing Junction:** The outputs of the feedback and feedforward paths are summed (positive signs) to produce the error signal dq .
- Controller:** The error signal dq is processed by a controller block (labeled '制御対象') to produce the output V_v .
- Disturbance:** A disturbance V_m [V] is added to the output V_v at a summing junction (positive sign) to produce the final output V_v .

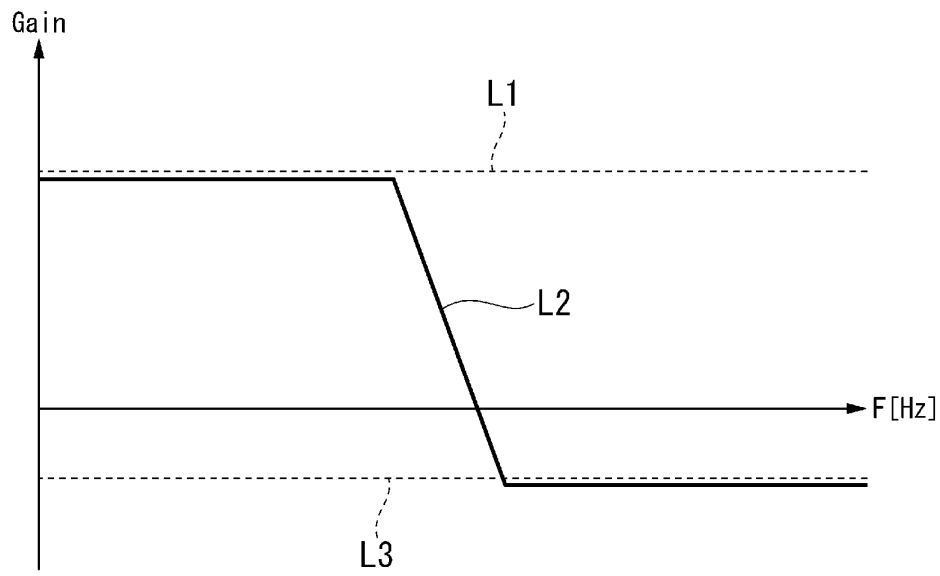
Bottom Section (Control Loop):

- Reference Input:** p_{ref} is the reference input for the bottom loop.
- Feedback Path:** The output $p_{measure}$ is fed back through a ZOH block and a gain block $B13$ to a summing junction.
- Feedforward Path:** The reference input p_{ref} is also fed forward through a ZOH block and a gain block $B12$ to the same summing junction.
- Summing Junction:** The outputs of the feedback and feedforward paths are summed (positive signs) to produce the error signal dP .
- Controller:** The error signal dP is processed by a controller block (labeled '制御対象') to produce the output f_v .
- Disturbance:** A disturbance f_n [Hz] is added to the output f_v at a summing junction (positive sign) to produce the final output f_v .

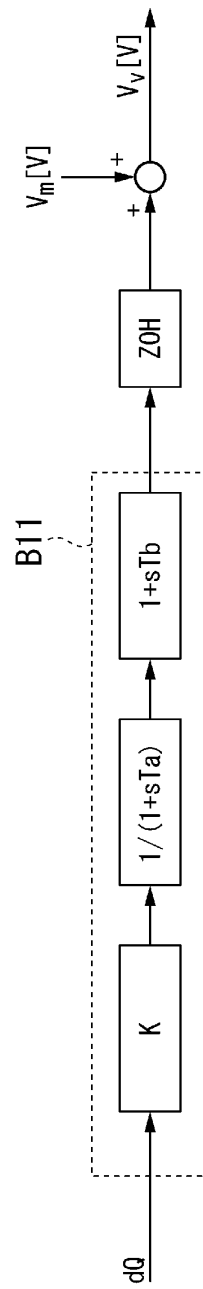
Intermediate Blocks:

- Block B12:** A dashed box labeled 'B12' contains two parallel paths. The top path takes dP and passes it through a block $\frac{1}{1+sM/D}$. The bottom path takes dP and passes it through a block $\frac{1}{D}$. The outputs of these two blocks are summed (positive signs) to produce df .
- Block B13:** A block labeled $B13$ takes df and passes it through a block $\frac{K}{1+sT}$ to produce $P_{measure}$.

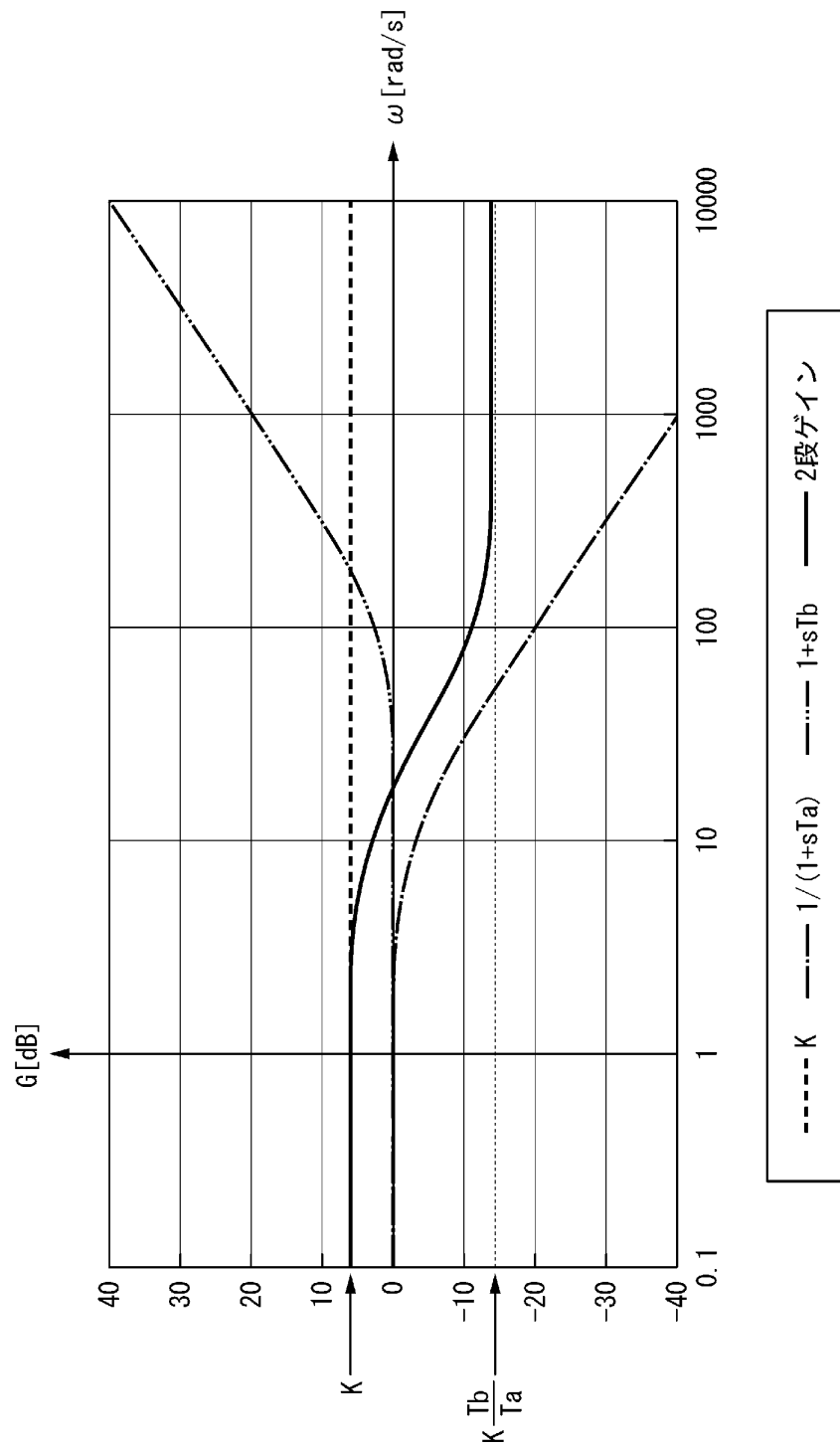
[図4]



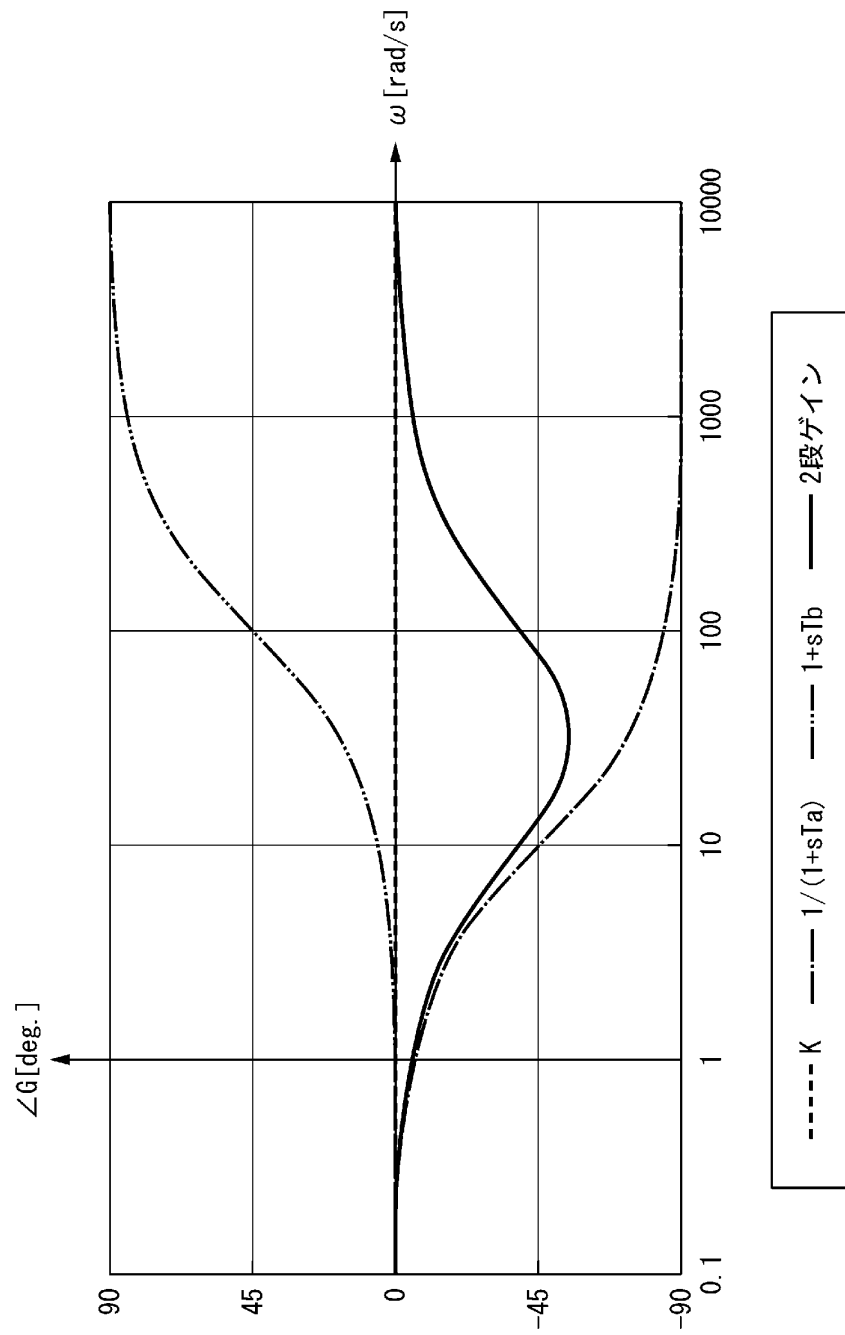
[図5]



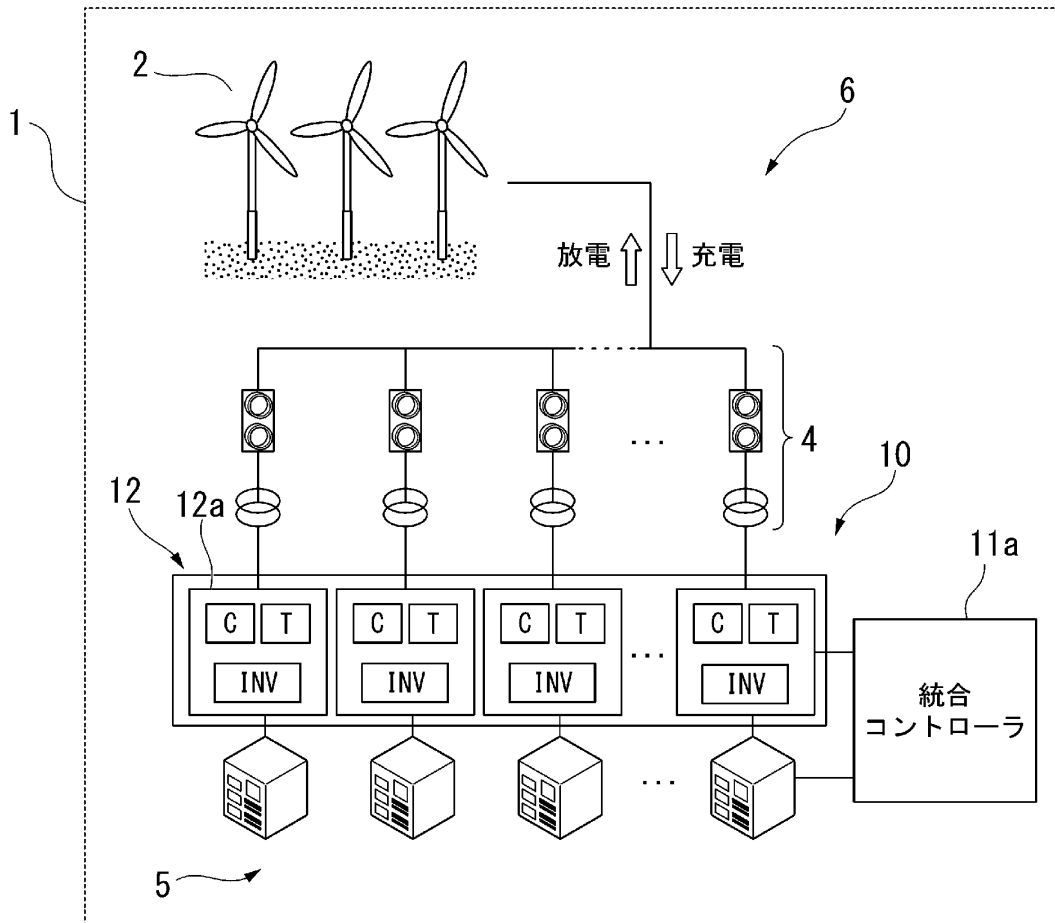
[図6]



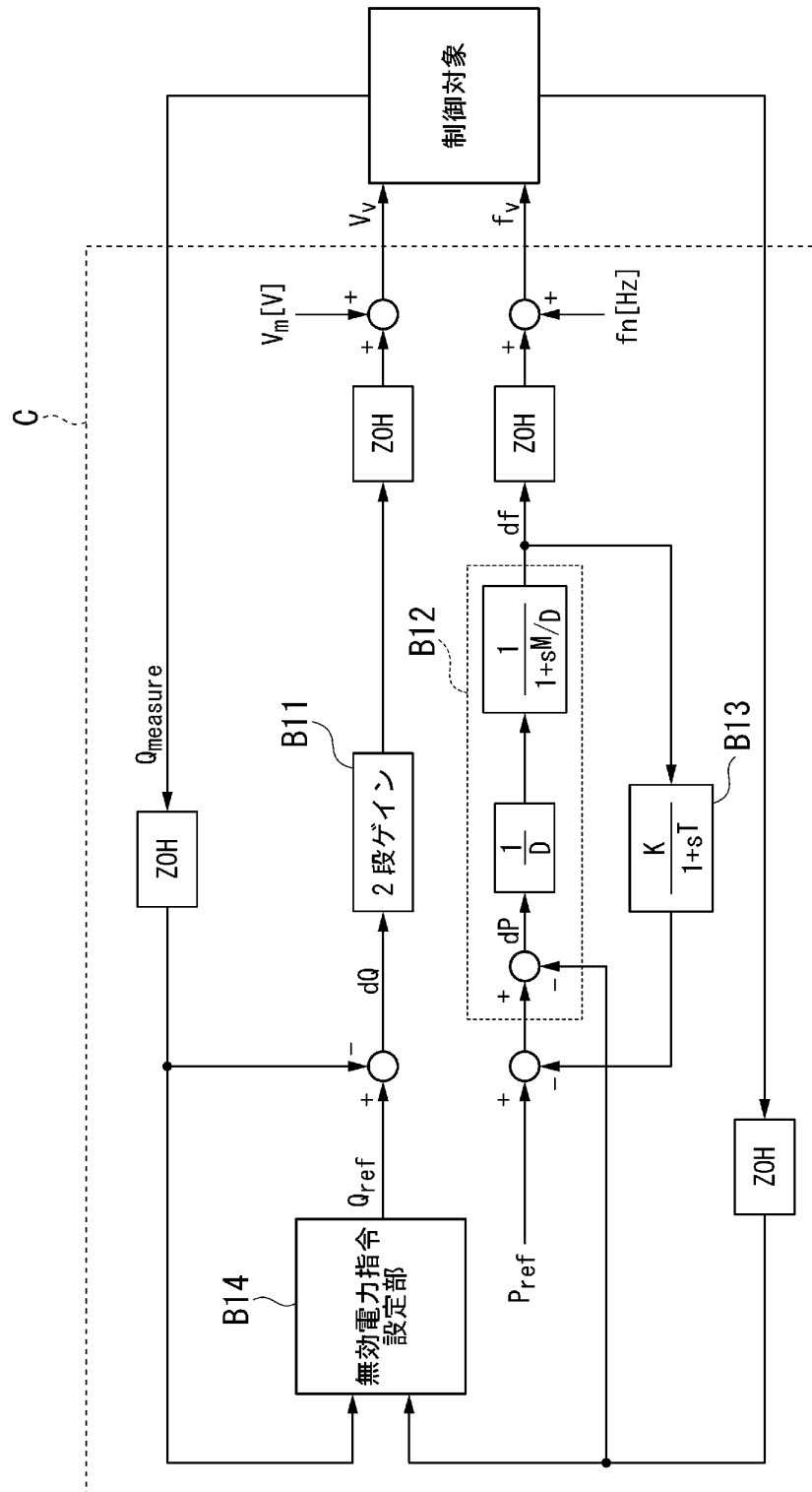
[図7]



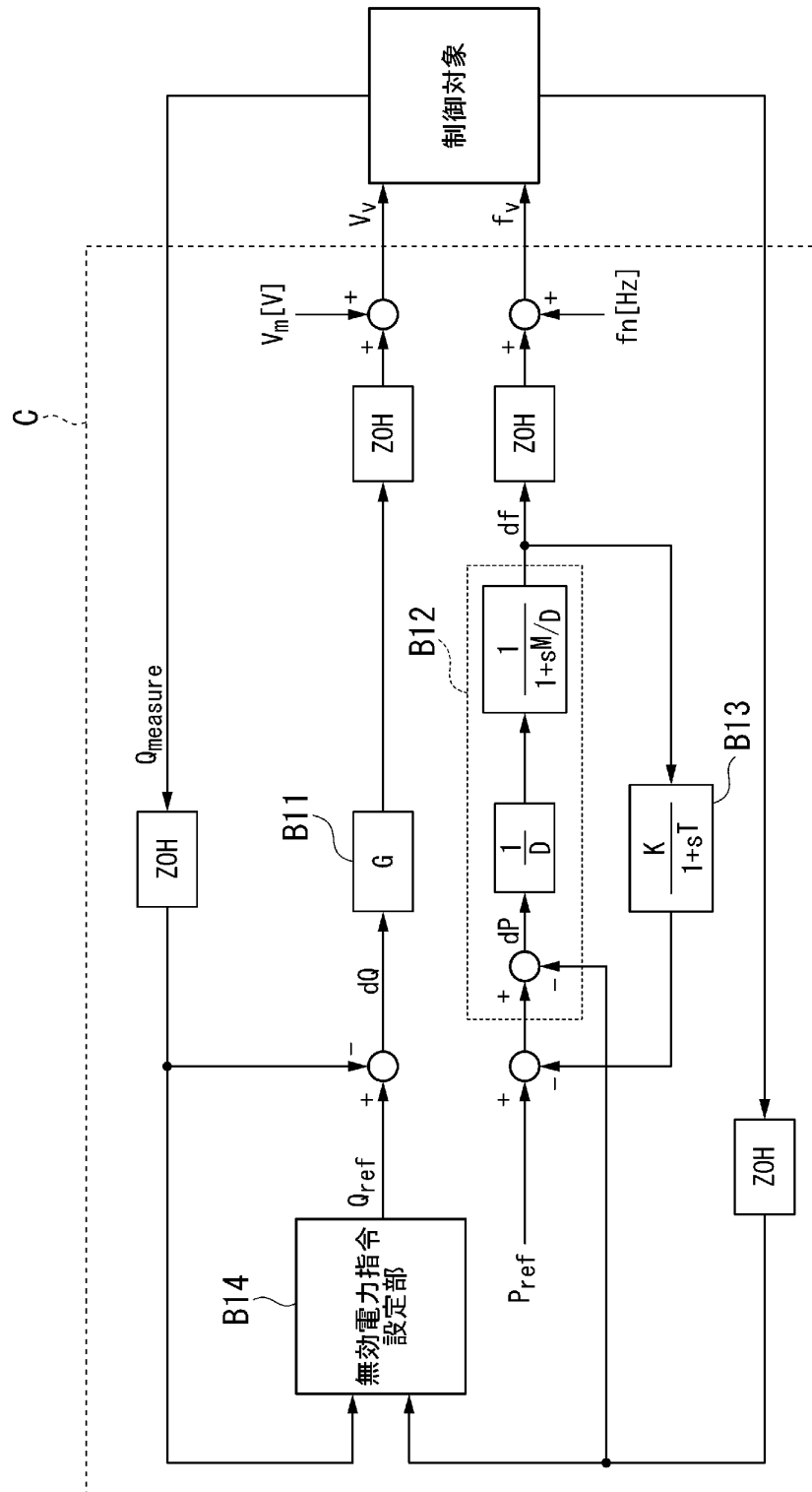
[図8]



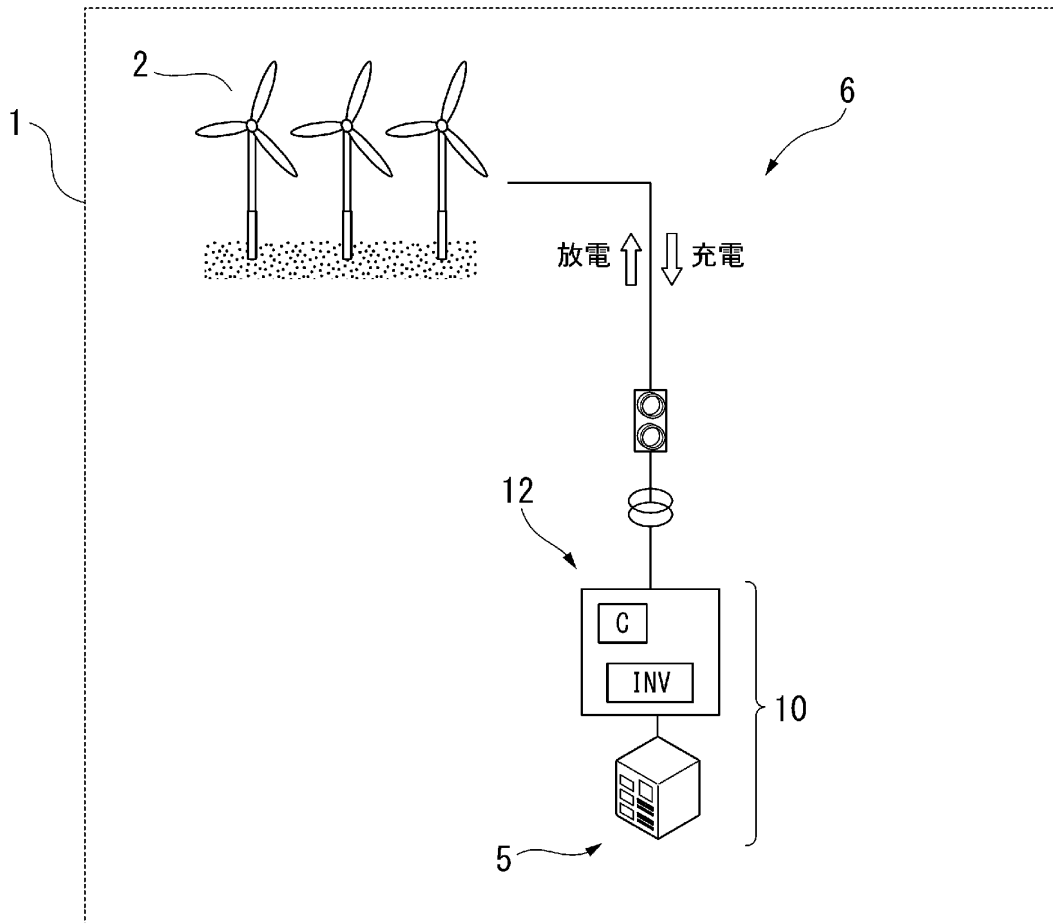
[図9]



[図10]



[図11]



[illegible]

[図13]

