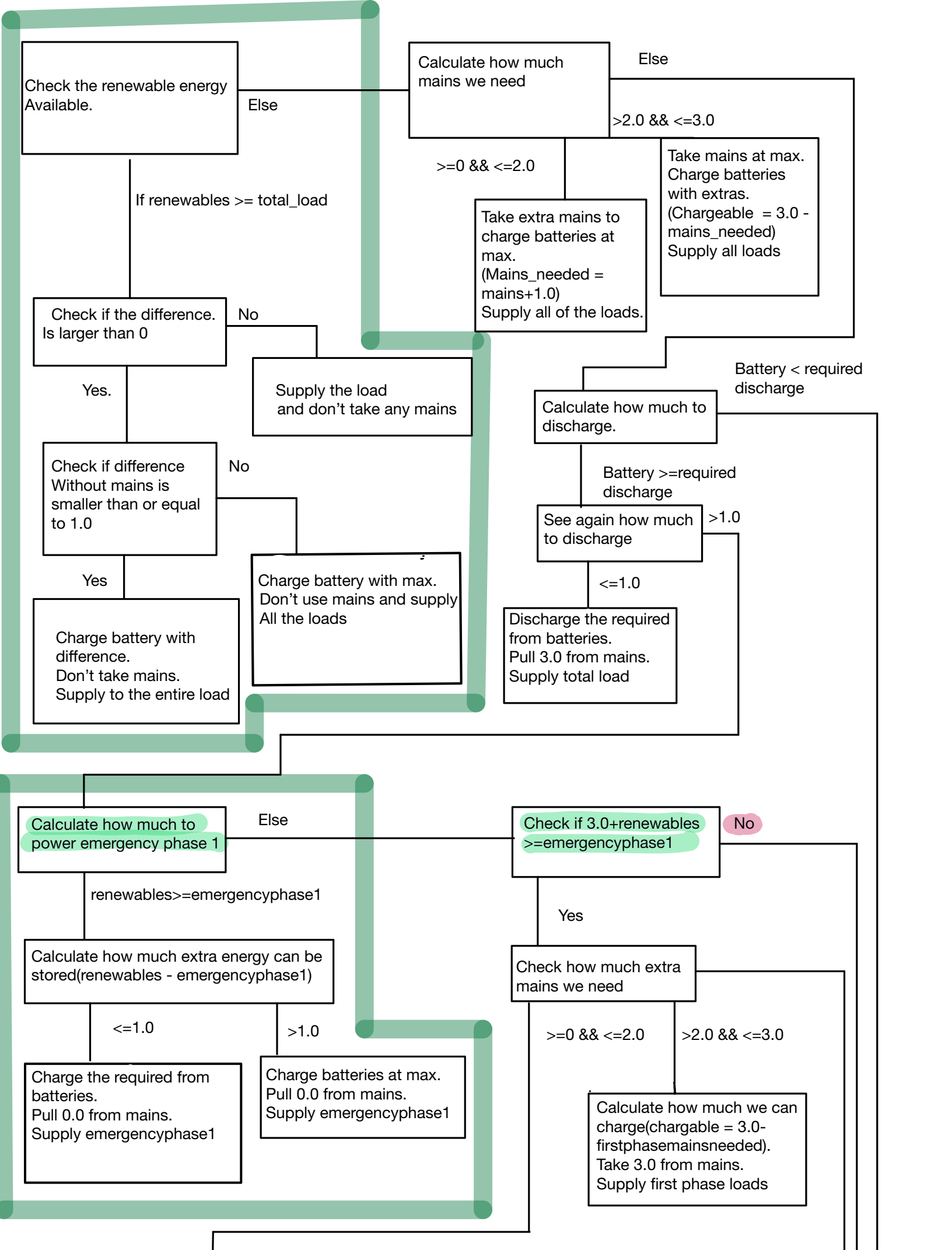
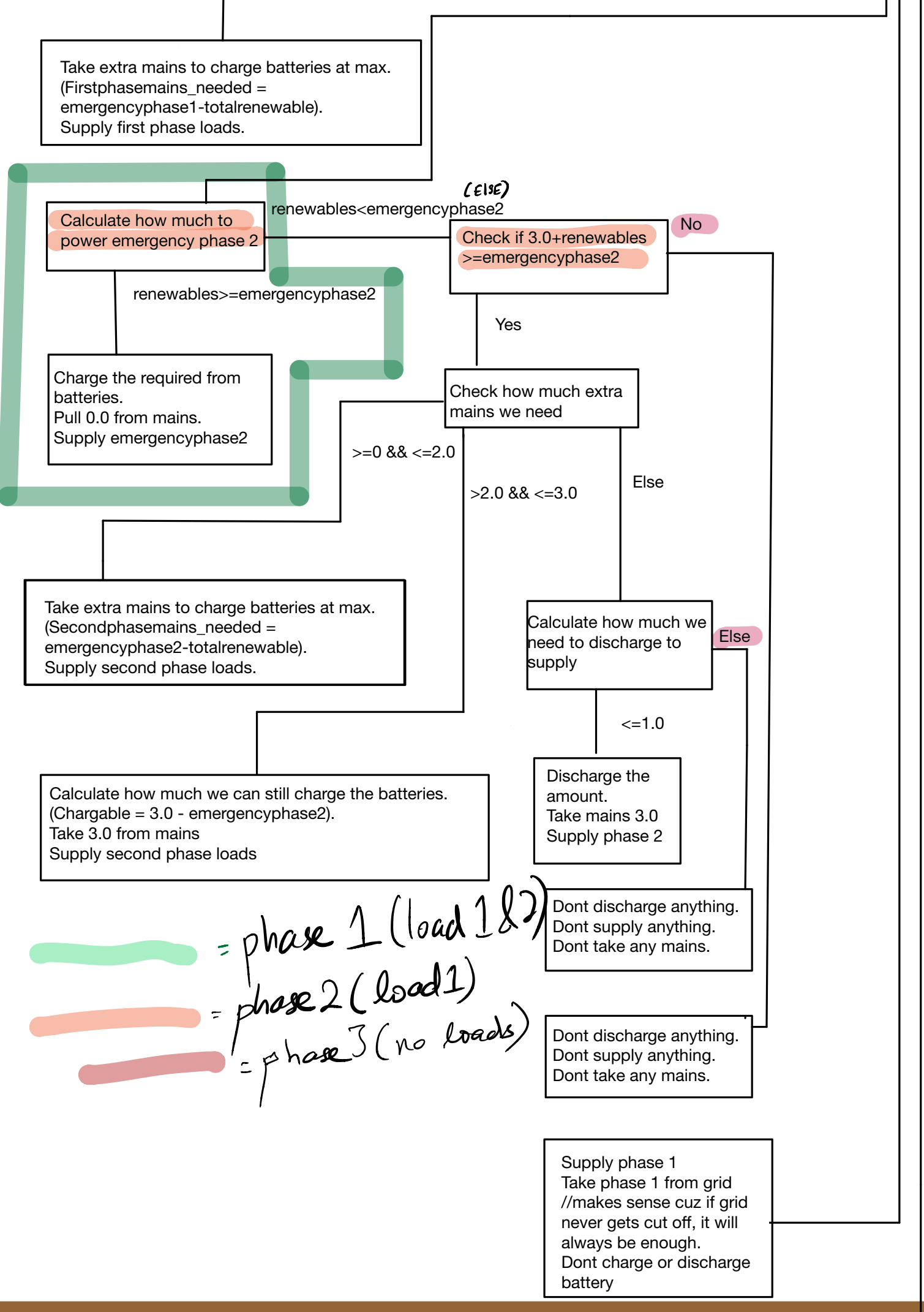
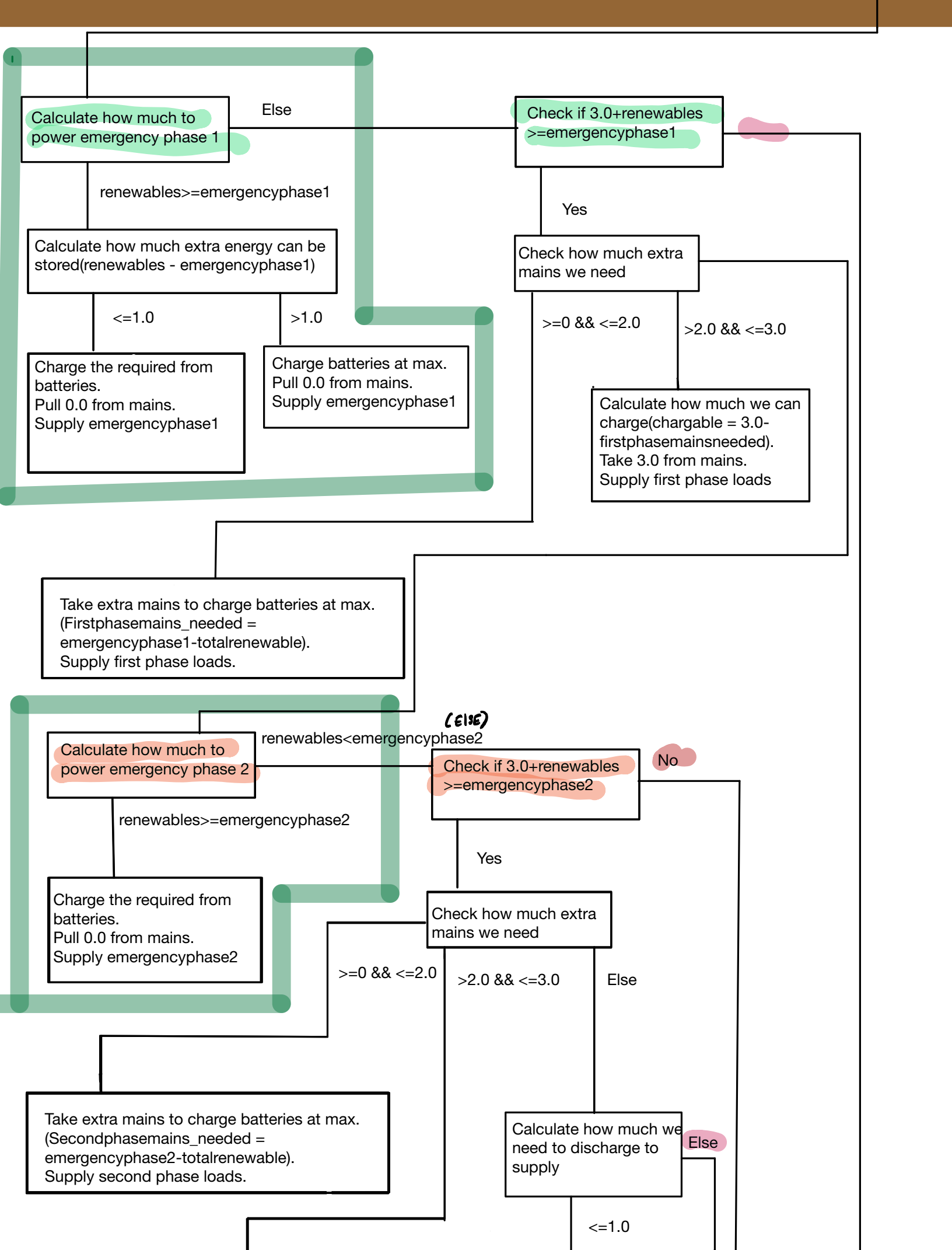
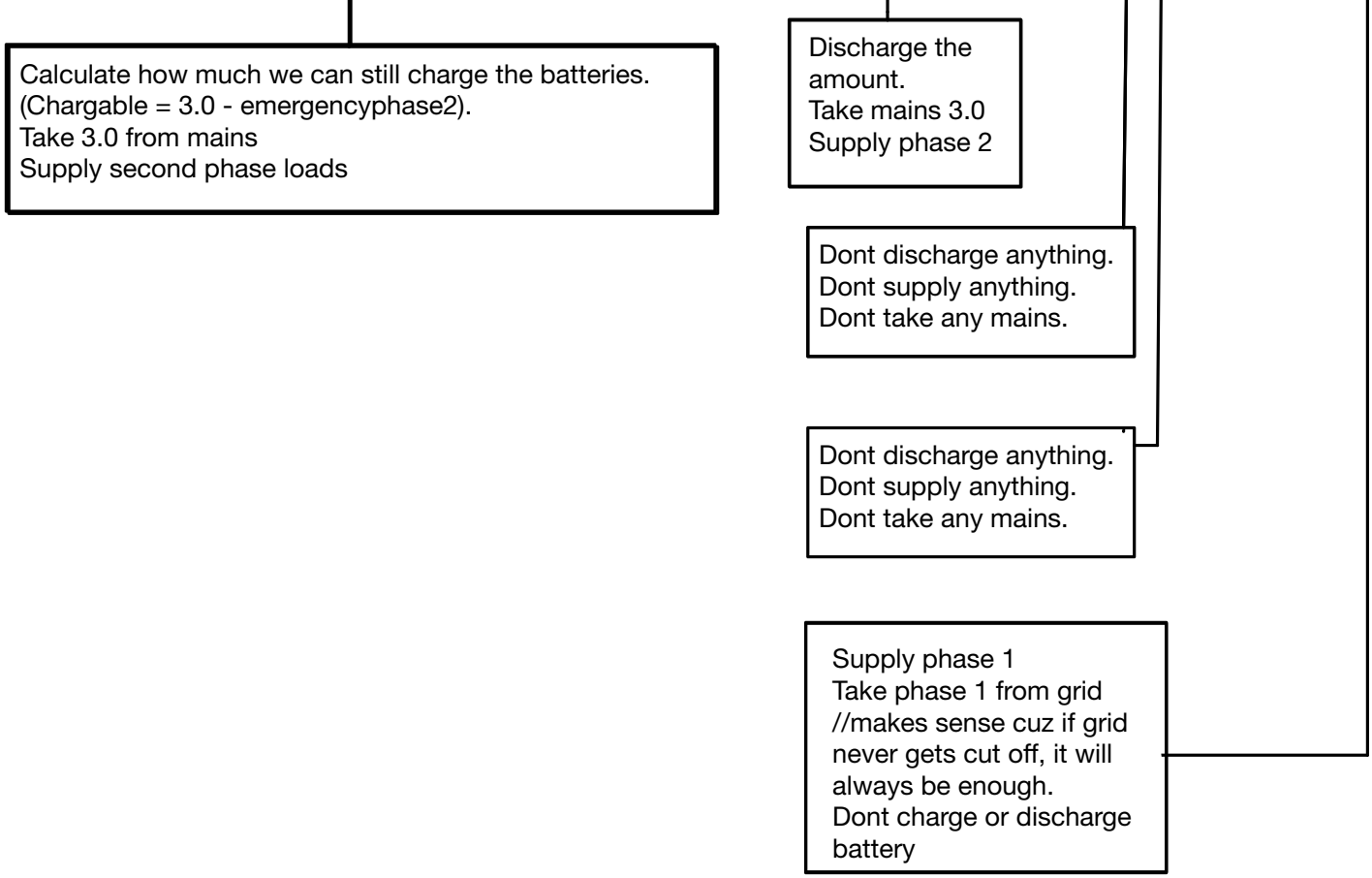

Check the renewable energy Available.
Else
Calculate how much mains we need
Else
>2.0 && <=3.0
>=0 && <=2.0
Take mains at max. Charge batteries with extras. (Chargeable = 3.0 - mains_needed) Supply all loads
Take extra mains to charge batteries at max. (Mains_needed = mains+1.0) Supply all of the loads.
If renewables >= total_load
Check if the difference. Is larger than 0
No
Supply the load and don't take any mains
Yes.
Check if difference Without mains is smaller than or equal to 1.0
No
Yes
Charge battery with max. Don't use mains and supply All the loads
Charge battery with difference. Don't take mains. Supply to the entire load
Battery < required discharge
Calculate how much to discharge.
Battery >=required discharge
See again how much to discharge
>1.0
<=1.0
Discharge the required from batteries. Pull 3.0 from mains. Supply total load
Calculate how much to power emergency phase 1
Else
Check if 3.0+renewables >=emergencyphase1
No
renewables>=emergencyphase1
Yes
Calculate how much extra energy can be stored(renewables - emergencyphase1)
Check how much extra mains we need
<=1.0
>1.0
>=0 && <=2.0
>2.0 && <=3.0
Charge the required from batteries. Pull 0.0 from mains. Supply emergencyphase1
Charge batteries at max. Pull 0.0 from mains. Supply emergencyphase1
Calculate how much we can charge(chargable = 3.0-firstphasemainsneeded). Take 3.0 from mains. Supply first phase loads


Take extra mains to charge batteries at max.
(Firstphasemains_needed =
emergencyphase1-totalrenewable).
Supply first phase loads.
Calculate how much to power emergency phase 2
renewables<emergencyphase2
(ELSE)
Check if 3.0+renewables >=emergencyphase2
No
renewables>=emergencyphase2
Yes
Charge the required from batteries.
Pull 0.0 from mains.
Supply emergencyphase2
Check how much extra mains we need
>=0 && <=2.0
>2.0 && <=3.0
Else
Take extra mains to charge batteries at max.
(Secondphasemains_needed =
emergencyphase2-totalrenewable).
Supply second phase loads.
Calculate how much we need to discharge to supply
Else
<=1.0
Calculate how much we can still charge the batteries.
(Chargable = 3.0 - emergencyphase2).
Take 3.0 from mains
Supply second phase loads
Discharge the amount.
Take mains 3.0
Supply phase 2
Dont discharge anything.
Dont supply anything.
Dont take any mains.
= phase 1 (load 1 & 2)
= phase 2 (load 1)
= phase 3 (no loads)
Dont discharge anything.
Dont supply anything.
Dont take any mains.
Supply phase 1
Take phase 1 from grid
//makes sense cuz if grid never gets cut off, it will always be enough.
Dont charge or discharge battery


Calculate how much to power emergency phase 1
Else
Check if 3.0+renewables >=emergencyphase1
renewables>=emergencyphase1
Yes
Calculate how much extra energy can be stored(renewables - emergencyphase1)
Check how much extra mains we need
<=1.0
>1.0
>=0 && <=2.0
>2.0 && <=3.0
Charge the required from batteries.
Pull 0.0 from mains.
Supply emergencyphase1
Charge batteries at max.
Pull 0.0 from mains.
Supply emergencyphase1
Calculate how much we can charge(chargable = 3.0-firstphasemainsneeded).
Take 3.0 from mains.
Supply first phase loads
Take extra mains to charge batteries at max.
(Firstphasemains_needed = emergencyphase1-totalrenewable).
Supply first phase loads.
(ELSE)
renewables<emergencyphase2
Calculate how much to power emergency phase 2
Check if 3.0+renewables >=emergencyphase2
No
renewables>=emergencyphase2
Yes
Charge the required from batteries.
Pull 0.0 from mains.
Supply emergencyphase2
Check how much extra mains we need
>=0 && <=2.0
>2.0 && <=3.0
Else
Take extra mains to charge batteries at max.
(Secondphasemains_needed = emergencyphase2-totalrenewable).
Supply second phase loads.
Calculate how much we need to discharge to supply
Else
<=1.0


Calculate how much we can still charge the batteries.
(Chargable = 3.0 - emergencyphase2).
Take 3.0 from mains
Supply second phase loads
Discharge the amount.
Take mains 3.0
Supply phase 2
Dont discharge anything.
Dont supply anything.
Dont take any mains.
Dont discharge anything.
Dont supply anything.
Dont take any mains.
Supply phase 1
Take phase 1 from grid
//makes sense cuz if grid never gets cut off, it will always be enough.
Dont charge or discharge battery