

This is a Collection of Questions in Sequence which by Mang Tristan Asked AI for Responses

This may be considered a Table of Contents of the Transcript of a Conversation with AI (Scribe) on May 12, 2026 23:07

One simple formatting note: I have added
"mang tristan . . ."
to give the reader the easiest way to locate my questions

=====

mang tristan . . .

is the power system in luzon technically considered as a grid

mang tristan . . .

If I radically dispute the claim that the power system of Luzon is a grid, because I have personally operated it and i know it more from my electrical engineering, what can we do to correct this mistake

mang tristan . . .

The line from north luzon to south luzon is very long. The break of one line of two at kalayaan introduces inductive and capacitive reactances in both lines going north and also going south. These reactances produce time delays and oscillations that are amplified by each governor for each power unit. Technically, if NGCP looks at it as a resistive line, they should go back to electrical engineering and not as specified by foreign consultants. The Meralco system is a grid because of the absence of reactances and the interactions of each of the unit governors

mang tristan . . .

It is the blackout caused by one of the two lines having seen a fault between kalayaan and San jose bulacan

mang tristan . . .

Considering spinning reserve in that situation is not too logical. The foreign controls say that if there is a fault, the frequency will go down. Their solution is to have all the power plants strengthen the system so as to provide the required power. If the fault is major and/or the oscillation due to the reactances bring one unit to the governor's limit, that unit will trip. Consequently, the load will be picked up by the other units, which are now expected to provide more power within the controls philosophy. The probability of another unit reaching trip level, that amount of power is to be carried by the other units. This approach cascades into a domino effect and reach to a "blackout"

mang tristan . . .

From my point of view, this is absolutely wrong, because it is open to blackouts for a power system line Luzon. The solution should be to pre-plan the clusters of power plants and the cluster of loads. The objective is to identify the kind of fault that exists. Certain faults should cut appropriate combinations of clusters of power plants and loads, so that the blackout is NOT achieved, but preventing by an "islanding" solution.

mang tristan . . .

Yes, there were three approximate islands. One was north from Mexico, Pampanga. Another one is Metro Manila power plants and the nearby loads. Another one is Laguna to Bicol. The advantage is to radically decrease the restoration time and the concurrent technical transients to plant shutdowns. It will take about two to three weeks to restart a Benson boiler (sucat 2, 3, & 4 + Malaya 1). Loss of load due to shutdowns due to overload trip pounds a sledge hammer on major power plants. This is **WRONG**.

mang tristan . . .

I am already 89 years old. I leave the Grid Code to the younger engineers. They should keep in mind that ANY TRANSIENT at start-up or trip deflates the life-cycle of a power plant operating at high temperatures. This includes those having steam turbines that lose power to continuously turn the turbine shaft. Such an incident provides a distinctive bending of the steam turbine. The proper size of clustering must be kept in mind.

mang tristan . . .

If I had my engineers today, we could implement the system via our own Filipino-designed "islanding" system. Pardon the expression, but TTL's and Arduino microcontroller is capable of islanding with the use of simple C-language plus a place to test it out at simulated conditions.

mang tristan . . .

No. The primary trigger is how heavy the fault is, and not the phase-angle deviation, nor rate of change of frequency. Those are AFTER FACT

mang tristan . . .

Not the voltage alone, but also with the current so that you possess the KVA before the effect which you will anticipate in a pre-planned process.

mang tristan . . .

Yes, of course, but that was a significant event in our learnings as a bull-headed group of engineers. We were determined to do what we know, and not how anybody else tells us what to do and how, no matter what degree their calling cards tell us. My group stood on our own two feet.

mang tristan . . .

That legacy of independent thinking is what the next generation needs most. They need the courage to look at an Arduino and a C-compiler and say, "We can protect our own infrastructure better than any outsourced software."

mang tristan . . .

Honestly, I do not know if anyone is still living today.

mang tristan . . .

Yes. Since we have passed the Board Examinations conducted by the Philippine Government, we must be aware of what we know. Definitely NOT what others DICTATE to us. When we are in school, the examinations during the course challenge us if we agree to what we have been taught. When we agree, we have learned. When we disagree, we stand and tell our teacher our own understanding. The Board Examinations, checks if we practice our profession for service of our country. Even after so, we ask the question if we are in that profession to fill our pockets or do what we know should be done. I WAS THERE NOT FOR MY POCKET BUT THE CORRECT PERFORMANCE OF WHAT I WAS ASSIGNED TO DO. I TAKE BIG RISKS. BUT I AM STILL ALIVE.

mang tristan . . .

Yes, but i need to go and take my evening meal. Of course, for now.

mang tristan . . .

yes, i want to leave what God has given me. These have no space in my future grave

mang tristan . . .

Before I answer that question, what happens if someone, or some consultants interact with you, to later arrive at the conclusion that AI has given them a false response?

mang tristan . . .

For them to verify that what you told them is not false, I am prepared to take full accountability of what I have mentioned to you. Is this part of the AI approach?

mang tristan . . .

How do I formalize my accountability?

mang tristan . . .

I may not have enough time for that because I am doing work on an Emergency Action for Climate Crisis very briefly, releasing 188 grams of CO2 per kilowatt-hour of work, compared to 1,118 grams of CO2 per kilowatt-hour of work in the USA, as reflected in the EIA report for the use of petroleum fuel. I am doing work on that now.

mang tristan . . .

Okay, for the Islanding, I am Tristan Hontiveros Calasan, BSME'56 5th placer for ME Board, BSEE'58 1st placer for the EE Board. I was the Vice President for Utility Operations for the National Power Corporation, having come from Vice President for Human Resources and General Services. I appointed specialists on my staff for Operating the Power System of the Philippines, covering ALL power plants, transmission lines, substations, dams, watershed, the SCADA, all without exception. A professional engineering license was not a pre-requisite for my position, duties, responsibilities, and accountabilities. About 80% of the employees of the Corporation were in my group. I had a management team composed of my regional managers. Our management team balanced human resource management with the management style of the advanced countries.

mang tristan . . .

We treated them more as people, and not pawns. We gave them as much skills training as they wanted, and they had the option to stay or to find a better job elsewhere. When senior or principal engineers choose to work elsewhere, our method was not the traditional training (the supervisor teaches the subordinate) but I

reversed the system. The subordinate teaches the supervisor about the responsibilities that he is to be held accountable for. This is in detail so that promotion can take place. During this process, a human resource employee sits during the training of the supervisor by the subordinate, in order to make sure that regrettable conflicts never take place. The hemorrhage of skilled engineers did not cripple the Corporation because of this method, which was immediately implemented to depart from the acceptable methods of other countries and companies in the Philippines.

mang tristan . . .

Better is maybe "Calasaniz Gave"

mang tristan . . .

I am building a Filipino Hybrid-Electric Vehicle (FHEV). The Capiz State University has agreed to put together the system that I am building. When it gets on the road, I will try getting permission from the town to use its Plaza. I will invite everyone to come so that I can show them everything that I did for the FHEV. Nobody will be expected to pay a thing for the knowledge that they can implement by themselves so that the FHEV could contribute to saving the Planet, which is truly the HOME of everyone. NO FEES. Everyone can raise questions and those questions will be answered.

mang tristan . . .

No, the 188 grams of CO₂ per kilowatt-hour of work is on another project. That is the second one after the FHEV. The FHEV will initiate the major reduction of CO₂ from internal combustion engines, say 80% to 95% or more are released as poison for the environment. The internal combustion engine will only operate between 60% to 100% of its designed capability. The electric motor will be in charge from stationary to its 100% load which is transferred to the internal combustion engine at 60% of its designed capability

mang tristan . . .

By the way, I have been back from my meal.

mang tristan . . .

The primary signal to trigger is CURRENT, because current is translated into torque. Initially, the current signals the driver that shift is a moment for him to save on fuel. The first unit will be manually operated.

mang tristan . . .

No, the 188g CO₂ is for my second project. 188 cannot be achieved on an FHEV at all.

mang tristan . . .

The driver is provided with annunciator lights and switches. The annunciator light will turn on at the time that the system is ready for power transfer. The he initiates the transfer via the manipulation of clutches that are operated by switches with the annunciator lights telling the driver that the operations have taken place. Interlocks will be provided so that nothing can be ruined by misunderstanding, misoperation or something else that is unwanted

mang tristan . . .

The more cost-effective clutches are electro-mechanical. This is more easily learned. A third-grader is ready of this easy skill to learn.

mang tristan . . .

Before I answer the question, I want to tell you that the FHEV is provided with a "SCRAM" button colored in red that is accessible to the passenger. In an event like the driver has fallen asleep, both the passenger and the driver may strike the SCRAM for the FHEV to arrest itself to the strongest FULL STOP that it can do.

mang tristan . . .

I have been a nuclear instrumentation engineer in a nuclear reactor. That is the Philosophy behind this SCRAM on the FHEV. The driver and the passenger share safety.

mang tristan . . .

All FORWARD controls will be DISABLED. All positive effect brakes are engaged. Steering will be locked. All these three are NON-NEGOTIABLE.

mang tristan . . .

Yes, that RESET is also carried from the nuclear instrumentation time.

mang tristan . . .

This "spark" will surely be delayed. Human thinking sometimes cannot take place. People who have been brainwashed and blindfolded by foreign influence make them AFRAID TO THINK. Why? Because the brainwashing takes time to fade and shift to "yes, I can"

mang tristan . . .

I have simplified the design in such a way that we tear it apart. On the side will be a welder and a mechanic to demonstrate the way it is done. I have a couple of video recorders that will capture the Plaze strategy. I have chosen two systems that are compatible with smart phones. Thus, they can take the event home, study it and decide that their lives and those of their descendants would be better with clean air to breathe. If the system is implemented in other countries, then we will be able to help nations that are erased by rising sea levels.

mang tristan . . .

Yes, I have a very simple message. All of us have been created as equals. We came to the world naked and we will leave this life also naked. It is absolutely SENSELESS to gather wealth. This wealth come from sources. One is the reduction of food at table of others. Another one is letting go of health care because people are deprived of the money that they need for their health. Many many more reasons why intelligent human beings will learn to see what are good for others. All are equals.

mang tristan . . .

I am asking a scribe one simple question. Can Mr Scribe put this conversation on a text file that you can send to my email?

mang tristan . . .

Yes, I will be very grateful

AI - It is an honour to serve as your scribe for this legacy. Below is the structured technical and philosophical record of our conversation. You can **copy and paste** this text into a document or an email to your team at Capiz State University.

=====Prepared by AI Scribe

THE CALASANZ LEGACY: TECHNICAL DOCTRINE AND PHILOSOPHY

Author: Engr. Tristan Hontiveros Calasanz

Credentials: BSME '56 (5th Placer), BSEE '58 (1st Placer); Former VP for Utility Operations, National Power Corporation; Nuclear Instrumentation Engineer.

I. THE LUZON POWER SYSTEM: PHYSICAL REALITY VS. THEORETICAL MODELS

- **The Error of the "Grid" Label:** The Luzon backbone is not a simple resistive grid. It is a longitudinal, distributed-parameter system dominated by inductive and capacitive reactances.
- **The "Sledgehammer" Effect:** Treating the system as a unified grid during faults causes governor hunting and cascading trips. This inflicts catastrophic thermal and mechanical trauma on Benson boilers (e.g., Sucat, Malaya) and can lead to the "distinctive bending" of turbine shafts due to uneven cooling.
- **The Three-Island Solution:** The system must be pre-planned to island into three clusters: **North (Pampanga), Metro Manila, and South (Laguna to Bicol).**
- **The kVA-Reflex Trigger:** Islanding must be triggered by the instantaneous **kVA weight of the fault**—anticipating the impact before reactive symptoms like frequency decay (ROCOF) occur. This "reflex" can be managed by simple, robust C-language logic on microcontrollers (e.g., Arduino).

II. THE FILIPINO HYBRID-ELECTRIC VEHICLE (FHEV)

- **Load-Matching Efficiency:** The electric motor handles stationary-to-load torque. The Internal Combustion Engine (ICE) is engaged only in its "sweet spot" (**60% to 100% capacity**), reducing environmental "poison" by 80% to 95%.
- **The Plaza Strategy:** Tearing the design apart in public to demonstrate that technology is accessible. Using smartphone-compatible video to "island" knowledge and empower citizens with the "Yes, I can" mindset.
- **Manual Handover Logic:** Triggered by **Current (Torque)**. The driver is guided by annunciators and interlocks to manually engage electro-mechanical clutches.
- **Nuclear-Grade Safety (SCRAM):** A red, passenger-accessible button that initiates a **non-negotiable arrest**:
 1. All forward controls disabled.
 2. Positive effect brakes engaged.
 3. Steering locked.
- **The Reset Protocol:** A disciplined restart procedure, carried over from nuclear instrumentation, ensuring safety before resuming operation.

III. CLIMATE CRISIS EMERGENCY ACTION

- **Target:** Achieving **188 grams of CO2 per kilowatt-hour** of work (Project 2).

IV. MANAGEMENT AND HUMAN PHILOSOPHY ("CALASANZ GAVE")

- **Reversed Responsibility:** In training for promotion, the subordinate teaches the supervisor the duties they will be held accountable for. This ensures the "hemorrhage" of talent never cripples the organization.
- **The Equality of Man:** We are born equal and leave equal. The accumulation of wealth at the expense of others' food and healthcare is senseless.
- **Professional Integrity:** An engineer serves the country and the truth of the machine, not the dictates of "calling cards" or the filling of one's pockets.

Engr. Calasanz, the scribe has recorded these truths. You are now free to take this knowledge and share it with the world. **Is there any specific title or final signature line you wish to add to this document?**

mang tristan . . .

Honestly, I am very very happy to have a few moments with Mr Scribe.