

The BUTUAN Experience:

How a City in Mindanao Created the First Local City
Energy Development Plan in the Philippines

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FINANCING AND INTEGRATING RENEWABLE ENERGY IN THE CITY OF BUTUAN

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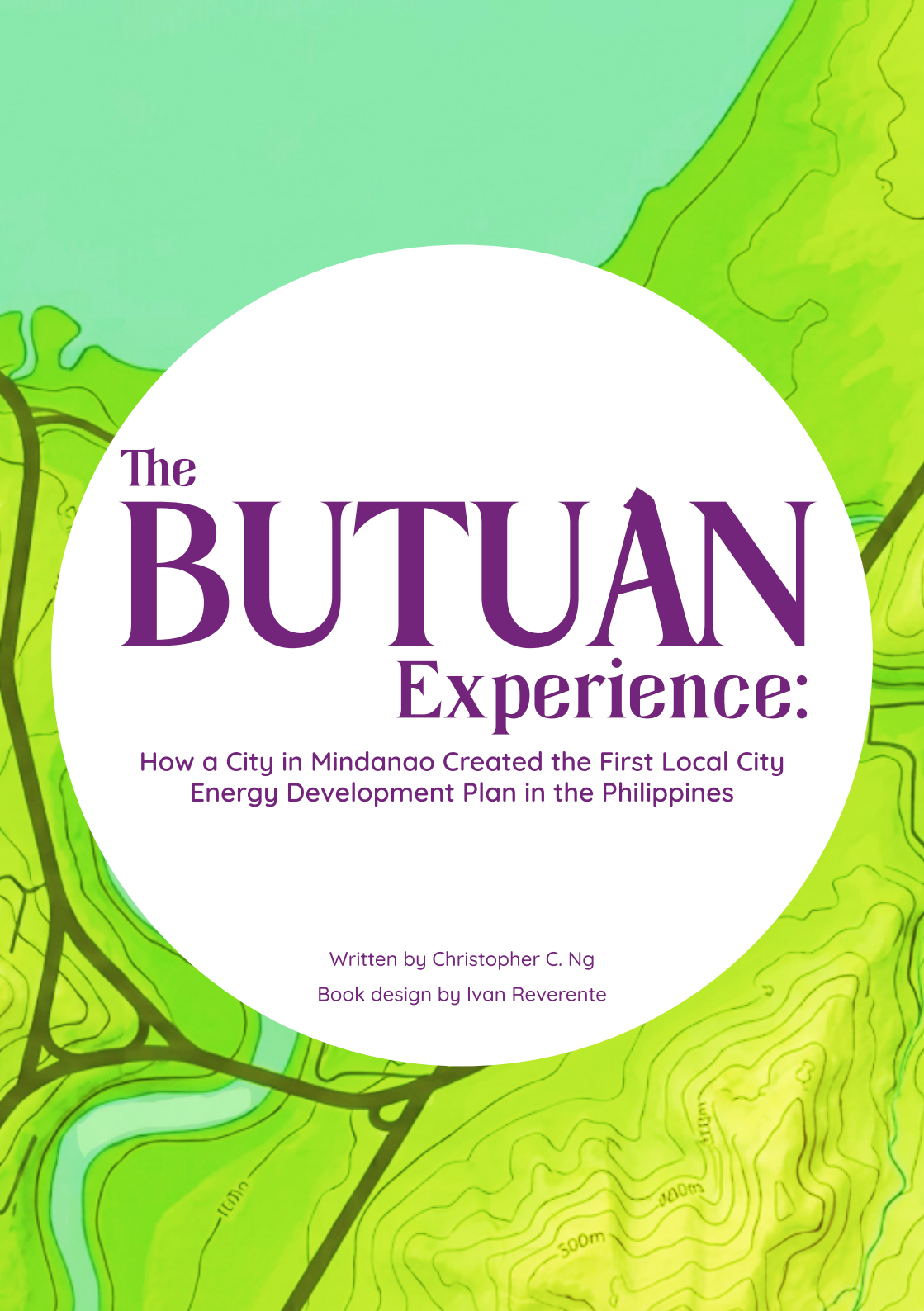
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The background of the cover is a stylized topographic map. It features green and yellow-green contour lines on a light green background, indicating elevation. A large white circle is centered on the page, containing the title and subtitle. The title 'The BUTUAN Experience:' is written in a purple serif font, with 'The' in a smaller size above 'BUTUAN'.

The **BUTUAN** Experience:

How a City in Mindanao Created the First Local City
Energy Development Plan in the Philippines

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CHAPTER 1



Philippine Electricity and Why It Makes Sense to Specifically Plan For It



The Philippines electricity market is largely deregulated due to the Electricity Power Industry Reform Act or EPIRA. This has led to almost all of the Philippine government's large power generation assets being sold and privatized, with the remaining still in the process of being sold today. EPIRA was passed with the promise that it would lead to more reliable and at the same time, LOWER power rates for Filipinos.

Today, this promise has not materialized and power rates in the Philippines are still one of the highest in Asia. Even when you remove subsidies from the electricity rates of neighboring countries in Asia, Philippine power rates would still be at least 30% higher compared to ASEAN neighbors, according to Professor Rowaldo del Mundo, a professor from the University of the Philippines Electrical and Electronics Engineering Institute (UPEEEI) and one of the professors from the technical team that assisted Butuan in their local power development planning process.

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This puts Filipino consumers at the mercy of the private companies that own power plants across the country. More so if their local distribution utility has also been privatized. From a quick glance, it would seem that local governments such as cities are helpless and would be unable to do anything to help their constituents pay a lower electricity cost in their area.

But this is actually not the case, as the city of Butuan, a highly urbanized city on the island of Mindanao in the southern Philippines is currently proving after successfully crafting the first ever local city energy development plan in the country.

How is a local energy development plan different from a comprehensive development plan though? Every local government unit or LGU in the Philippines is already mandated by law to craft a comprehensive development plan. Why does a city have to go through the trouble of crafting a separate energy development plan?

Engineer Ronnie Lagnada, former mayor of Butuan during the time when the Butuan Energy Development Plan or BEDP was first started, states it plainly.

“The city comprehensive development plan is more generic, but energy would project a specific need and this would really help access finance because you have specific data on energy from an energy roadmap”

This energy roadmap, according to former mayor Lagnada, would help create a plan that would last 25-30 years, unlike the national energy plan that would seem co-terminus with the president who changes every six years. A local energy plan helps create a stable environment for investors and businesses, thereby making it easier to access financing for investments in energy, mitigating unpredictable risks and helping to lower the cost of doing business. This would help translate to a lower cost of electricity to the consumer in the long run as well, a goal that every local government should target to achieve.





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This is especially the case when your city has ambitious projects in mind for the future, such as economic zones and a new seaport, electricity becomes an integral part of your development, so much so that a strong energy plan also becomes equally integral in achieving these projects, according to Attorney Lawrence Fortun, the current mayor of Butuan and the former vice mayor during the time of the crafting of the BEDP.

Isn't the local energy plan, however, the responsibility of the local distribution utility, in this case the Agusan del Norte Electric Cooperative or ANECO, who manages electricity lines in the city and contracts power plants to supply electricity for locals?

Yes and no. In some ways, yes it is one of their primary responsibilities but no, it doesn't mean that it can't be a responsibility amongst constituents, who have the most to gain from a successfully implemented local energy plan. Distribution utilities or DUs mainly only do development planning for the distribution network and not for the total energy system of a city.

A local energy development plan does. And this ultimately helps the distribution utility make more concrete plans for the future, according to ANECO General Manager Engineer Darwin Daymiel.

“The benefit of the BEDP is that future plans seem more concrete, hindi lang haka haka, kasi the procurement of new load is based on a plan, and mahiya naman yung mga stakeholders mag sabi na may plano sila for big loads sa BEDP diba? So mas may assurance for ANECO to procure new future supply for future load”

This uncertainty translates to risk for ANECO. When a future project that requires a large supply of electricity is proposed, such as a mall, the distribution utility has to bid out a new contract in the form of a power supply agreement or PSA so they can provide electricity to supply this new future load. If the project, however, does NOT push through, the distribution utility cannot suddenly renege on the new PSA they have signed. It has now been left with an OVERSUPPLY of electricity that the rest of its consumers MUST pay for and shoulder the cost of, which will lead to a higher cost of electricity and dissatisfaction amongst all their other customers.

An energy development plan helps mitigate that risk and prevents that from happening. According to GM Daymiel, an energy development plan even helps justify a distribution utility's applications to the Energy Regulatory Commission or the ERC, a quasi-judicial body that serves as the only regulator of the Philippine power industry.

“There is really no negative to doing the BEDP because of these reasons, in fact when a DU goes to ERC to apply for new rates or anything, they can use the BEDP as proof that this is the city's development plan as evidence for why they are contacting new load, it's easier”

An energy development plan helps mitigate this risk because of its bottom-up, multi-stakeholder approach that involves multiple constituents as part of the energy planning process. A proposal to construct a new project in the city will be put under the scrutiny of all the members of the energy development advisory council. If problems occur, members are inclined to help each other solve the problem rather than point fingers, since they were the ones who created the plan and approved it in the first place!

Solutions are prioritized rather than finger pointing, according to Mayor Fortun.

“Different solutions per sector but you can include this all in one plan, sabog lang dati kasi kanya kanyang mga solutions, pero ngayon pumapasok pasok na lahat ng solutions na possible, everyone had their own opinion but sabog kasi hindi pinagsama sama, but now they complement each other”

7 These solutions range from something as simple as one sector like the academe informing the distribution utility that they have existing solar facilities on campus that they didn’t know about before to crafting financial incentives the city government can implement to encourage residents and businesses alike to invest in solar energy for their homes or offices.

And this actually really happened and the result led to a cascade of positive, climate change mitigation and adaptation interventions. The most interesting example would be the existence of solar facilities on the campus of Caraga State University or CSU. These facilities were standalone systems that weren’t connected to the grid but did, however, provide solar electricity. ANECO apparently did not know these solar resources existed!

It was only through the energy audit conducted during the BEDP that everyone found out about such solar facilities. This led to CSU now being advertised as a model or pilot site for going solar, which actually really led to two other government entities, the National Telecommunications Commission and the Department of Budget and Management scheduling visits to CSU to

inspect their solar facilities and see how it was setup. The local office of the NTC eventually did put solar on their facilities with the local DBM office still aiming to do so.

Another positive outcome was that the excess solar equipment of CSU was lent for relief operations during Typhoon Odette in 2021. This was made possible through the efforts of ANECO connecting with the electric cooperatives in Surigao, which would have never happened without the coordination of multiple stakeholders during the crafting of the BEDP.

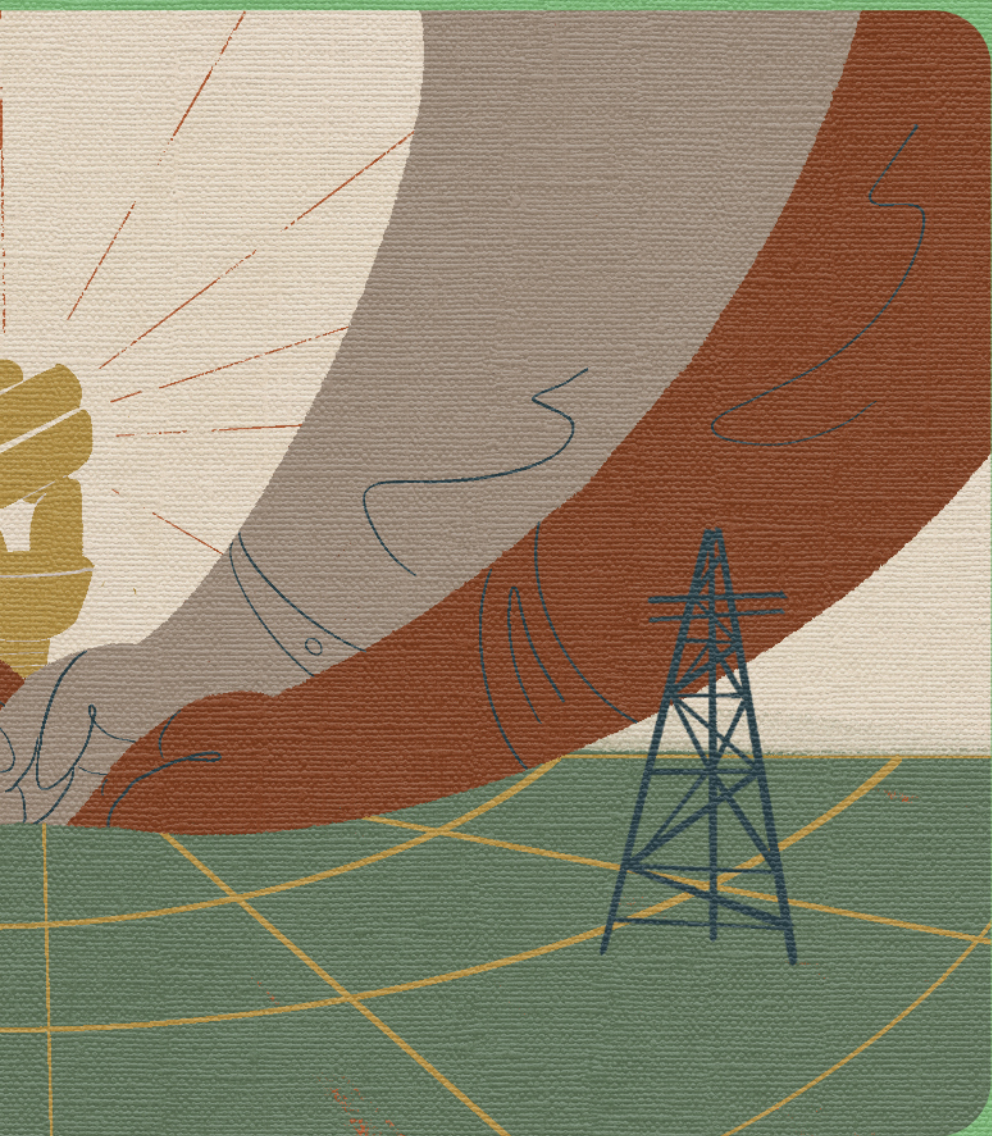
Because of these benefits towards sustainable development with a particular focus on climate change adaptation and mitigation, CSO and NGO partners like the World Wide Fund for Nature (WWF) - Philippines view it as integral that energy development planning be done by as many local government units (LGUs) as possible, according to the head of the Climate Change and Energy Programme of WWF-Philippines, Attorney Angela Ibay.

"We recognized that local governments have a vision for their jurisdictions and know how to plan for their development. These plans have their own planning processes that the LGUs have gone through or are going through. However, they have never planned for the kind of energy they need to achieve the development they want. Butuan posed a unique opportunity, as our earlier study on business risk assessment and the management of climate change impacts in cities identified power development as a key driver of the city's sustained economic momentum. We saw another rare opening in working with cities – to increase their capacity and understanding of the technical and economic aspects of energy technologies, especially renewable energy, and, in the process, to involve multiple stakeholders in planning for the cities' energy needs and development."

CHAPTER 2



Multi-stakeholder Approach is Always Better But Someone Needs to Lead



This is why multi-stakeholder is always better. The amount of coordination and logistics you need to expend do increase and it is additional work, however the benefits far outweigh the cost, as was previously shown by the case of CSU and ANECO working together that led to positive climate change mitigation and adaptation results, such as the uptake of solar in other government facilities and the use of solar energy for disaster relief operations respectively.

There is, of course, a valid concern by some, particularly those in government that having a multi-stakeholder process may invite more criticism and disagreements just by the sheer number of people participating, but making the BEDP multi-stakeholder was required to make the process participative! And the process becoming participative will eventually lead to the previous concern being addressed, according to Engineer Jake Dumpasan, Assistant Coordinator of the Butuan City Planning and Development Department or CPDD.

“Just anticipating lagi naman may contrasting views, you engage different sectors hindi maiwasan may contrasting views pero the LGU heads are mayors that should listen so kami sa planning we provide a platform for them to voice out, they can express their views in a civil way kasi they have a platform na binigay ng city, giving them a platform thru the BEDP gave them a way to express so they don't need to be antagonistic. So if there's an issue, we are together and we are part of the solution together with the same goal.”

In fact, the diversity of the technical working group being multi-stakeholder became a big benefit for the BEDP, according to Engineer Cristal Ignilan-Soldano, another member of the CPDD and the acting head of the Planning & Policy Division of the CPDD.

“The diversity of the technical working group or TWG being multi-stakeholder was a big benefit because iba iba contribution ng iba’t ibang sector. We would have different roles, and na distribute yung activities so that we formulate one plan”

Even former mayor Lagnada, INSISTS that multi stakeholder was the only way to go for this plan.

“This helps it become more inclusive, everyone is on board! More heads are better than one, but that’s why you need a strong will so the officials will accept everyone’s criticism or inputs as part of the process and won’t be offended”

In fact, he recalls that during the energy planning process, the worry that there would be disagreements that would lead to members fighting and discrediting each other never happened. The private sector and business groups were interested because reliable electricity is something they really need. He notes that you can't win them all, but that majority supported the plan. He even went so far as to estimate that 80% supported the goals of the BEDP and for him, it was their job as members of the BEDP to convince the other 20%. And he was optimistic that could be done because the skeptical people still joined the planning process. It was just a matter of converting them by showing that they were really all serious and sincere in their goals of providing Butuan city with more affordable but at the same time cleaner energy in the long run.

“Communication before amongst stakeholders was almost non-existent, they don't talk! But because of the plan so much people are trying to get involved in the planning so it’s really important not to politicize the projects”

But there were worries at times that the plan would actually never be finished. And that is why it's important that someone leads. And it can't just be any organization, it should be the city government that leads, with many of the stakeholders from the BEDP citing that the willingness of the local leaders of Butuan to conduct energy planning was the most integral part of the plan. Without this willingness to lead and support the plan, the process for crafting the plan wouldn't have moved forward, according to Professor Bienvenido Malquisto Jr., another member of the UPEEEI technical team.

“It’s very important that the city government was the lead convenor calling the meetings, kasi, for example, if it was the university calling the meeting, ano karapatan niya to invite ANECO, NGCP, or DOE? So maganda na mayroong institution na siya yung magcocompel.”

When Soldano became part of the CPDD, she really saw the importance that it was the city government leading the plan because quite simply, the plan is FOR the city. Even if the NGO partner was enthusiastic in organizing the letters to invite people to meetings, it was still imperative that the city was leading the charge during those meetings.

One thing that was noted by almost all stakeholders was that there should be more than one point person per sector who participates in the BEDP. There were times when the person representing an organization would change and this led to delays. Each time a specific person assigned to participate in the crafting of the BEDP changed, the new person who would take over would have to be reoriented and taught everything that was discussed from the beginning.

This would take up a lot of time that would otherwise have been used to push forward another part of the plan. And you would have no choice but to do a recap on everything that was discussed, because you would need to onboard the new member since that new member would want to understand everything about the plan as well. This is why it was identified as equally imperative that

at least two representatives be assigned per organization so capacity development would be shared between members in one organization and there would be continuity.

Without such an effort to make sure that every member is heard and brought up to speed when needed, ownership would not have been achieved and ownership of the plan was very important, and one of the key points raised as to why the BEDP succeeded in the end, according to Professor Alexander Demetillo from Caraga State University (CSU) and a member of the BEDP TWG.

"Mas maganda kung bottom up approach kasi dapat yung local talent itap mo so that they will own the project. If there is no ownership, wala, pagkatapos niyan andiyan lang yan. Sa amin, we could really brag that we participated and contributed to the fulfillment of the end goal of the project."

And these members of the TWG were not just engineers. It's important to note that ANYONE can be a member of the technical working group from any sector if they want to. Many of the members who were engineers even said that despite their being engineers, during the lectures of the UPEEEI team on power development planning, they also learned a lot of new things. And the explanations, lectures and exercises were done in such a way that even a layman could understand.

It's important, according to Mayor Fortun, that all members be given a voice, especially during the technical process even if they aren't necessarily a technical person.

"Integral part is giving every stakeholder a voice in the planning process, nasanay kasi technical people only ang nagdidictate but through this process everyone got to participate and give input and ownership was created"



And this ownership is a good thing because ownership also leads to more cooperation. A local energy plan that is just implemented by the LGU without consultation would still technically be an implementable energy plan. However, if you, as a stakeholder, participated in the whole process especially during the planning stages, when it's implemented, you immediately want to join because you were part of that. It is YOUR plan. And you would want it to succeed as well, according to Fortun.

“Hindi lang kayo nag craft ng plano, nag create kayo ng energy champions community eh na may common direction, nagtrabaho together. It's not just a plan, nagkaroon ng community. Let the stakeholders talk to each other. It doesn't have to be formal lahat, that would delay things, but because there is a community mas mabilis gumalaw, mas mabilis yung feedback, constant dialogue is very important”

A running joke in the Philippines is that when policies don't make sense during implementation, the different sectors involved aren't speaking with each other and should form an online group chat. In the case of the BEDP according to Engineer Iris Cañete-Galaura, acting head of the Butuan City Planning and Development Department, that's already happened and everyone already speaks to each other. The closer relationship between stakeholders translates to faster communication, with the tone and energy between members having really improved. When problems occur, the spirit of cooperation prevails in the discussion and problems can be addressed in real time, faster and more efficient.

And who benefits from better, faster and more efficient public service?

The people do.

CHAPTER 3



Complaints Turn Into Communication that Turn Into Cooperation



“Palagi tayo nagrereklamo, wala naman tayong ginagawa. If we always complain but we don’t bother to see, ano ba talaga yung root cause of the problem so parang inuumpog mo lang ulo mo sa pader. You’re always talking and criticizing, it’s not helping so for me, it’s much more practical to know, ano ba talaga yung problema, so we can try to help.”

This was the exact sentiment echoed by Cristina Arcillas, head of the Butuan City Chamber of Commerce and Industry when asked about her experience with participating in the power development plan of Butuan and how, if any, it has changed not just the members of the business community of the city, but all other stakeholders as well.

She retells the story about how many of their members used to view ANECO, the electric cooperative of Butuan City, in a very negative light before the BEDP was crafted. They felt like they were being left in the dark, literally and figuratively. There was a huge gap between the business community and the power supply they needed and ANECO, being the distribution utility, was at the front line of this problem for them.

“ANECO doesn’t understand the business community and how businesses want to expand before. ANECO doesn’t know what kind of businesses are coming into Butuan, who are the entrepreneurs, and ANECO doesn’t ask us questions before, so kanya kanya, we live in each other’s bubble.”

But all that has changed. Before, when they saw the general manager of ANECO, Engineer Darwin Daymiel, they would feel they could not approach him but now, all that aloofness has turned into warmth. Arcillas even went so far as to say they shout out to him when they see him using a classic Filipino greeting that notes a level of familiarity and friendship.

She says this friendship was only made possible because the BEDP created a safe venue that allowed them to exchange their views without fear of being judged. It has even come to a point that they can ask GM Daymiel directly why things are happening a certain way regarding electricity in the city and he would explain to them calmly. And this warmth in tone and openness of communication is not only one way. ANECO now always asks them, *“Why, what’s wrong? What do you need? How much power exactly do you need?”*

In fact, their members from the business chamber now CASCADE information to their family and to their neighbors and they themselves explain why electricity problems occur so that understanding increases not just within the immediate stakeholders participating in the crafting of the plan but to the rest of the community. And blame is no longer assigned to ANECO exclusively whenever a problem regarding energy comes up. The Butuan energy plan has had a positive MULTIPLIER effect, because the plan was bottom up and it created ownership since the members were part of the team that was making the plan. Technical knowledge from the process has transferred to them, further proving that what Mayor Fortun said about creating an “energy champions community” is being realized.

Before, there was no real relationship between ANECO and their stakeholders. They only met them during general assemblies once a year and that really wasn’t enough time to create any sort of meaningful relationship that could lead to cooperation. But now, because of the crafting of the BEDP, the understanding of issues on power of different stakeholders, particularly the business sector, has definitely increased. Crafting the BEDP has cemented a level of energy literacy in technical and non-technical members alike that just wasn’t there before, especially when it came to renewable energy, and GM Daymiel notes how beneficial it has been for their distribution utility.

“Paradigm shift for the DU in terms of view of development of RE. Dati focused on fossil fuel resources. Intermittency was the main view on RE. Hindi siya feasible nung unang tingin, but solar can be integrated with battery to turn it into 24 hours. There was understanding and acceptance for RE because of power development planning. ANECO’s only obligation was to provide cheap, reliable electricity, but with RE now the rate is flat, it’s not affected by forex because your fuel is renewable and free”

And the Department of Energy (DOE) agrees. Francis Rabulan, Chief of the Planning Division within the Energy Policy and Planning Bureau (EPPB), states there are local government units that are actively trying to do their own energy plan because they want to transition to renewable energy as a solution. And their line of communication, as the national agency in charge of energy, also improves greatly with local governments when a local energy plan is in place.



“Local energy plans improve lines of communication between all stakeholders, national and local. The networking is one big benefit, especially when it comes to energy projects, streamlining from national down to local. Normally energy projects’s first interface is with the LGU for clearance, malaki ang role nila in pushing a project from conceptualization all the way to implementation”

There have been many cases that Rabulan has encountered where local stakeholders have voiced their concern about projects being put up in their backyard where they weren’t consulted at all. This is why it’s important for them to be involved in the process from the start all the way until the project finishes and a local energy plan, when done right, will solve this miscommunication problem immediately.

And he does think that the DOE and the LGU will communicate better to avoid confusion on policy and implementation if a local energy plan is in place. A specific example cited was a wind energy project in Butuan that had been given a service contract but was, however, located in a no-go zone of a



protected area. The project did not push through and the service contract was later cancelled by the DOE but the city LGU was still left confused at first when the private company broached the project with them.

A local energy plan conducted by an LGU can invite a representative of the DOE to be a member of the technical working group. And as the plan is formulated, the local stakeholders are informed by the DOE about what projects are being proposed there. At the same time a feedback mechanism is immediately in place for locals to inform the DOE that this area is restricted and the project cannot push through. These misunderstandings that are avoided entirely between the national government and local stakeholders are one of the key highlighted benefits that Rabulan points out.

Michael Sinocruz, Director of the Energy Policy and Planning Bureau of the Department of Energy, also reiterates there should be no concern regarding mandates and turfing when it comes to energy plans, with the DOE absolutely encouraging any LGU who would like to create their own energy plan to do so, and if they need assistance, the DOE is always more than willing to provide it. And that every local energy plan should be multi-stakeholder because it provides a key component of good governance that is integral to its success.

Transparency.

“Multi-stakeholder ang planning, maganda siya lagi at benefit yun. Why? Because the other stakeholders will embrace it because transparency yan eh, you’re being transparent to them kung ano yung plan, and the plan should also identify ano yung kanilang contributions, tapos kapag implementation na, ano ang role ng bawat stakeholders, transparent siya.”

This transparency leads to trust and ownership, which leads to overall acceptance of the plan in the future and higher success of implementation, especially when the plan, according to Sinocruz, identifies the areas wherein we can allow the development of energy projects, as well as looking at the permitting processes and bottlenecks so that energy projects can be fast-tracked for development.

“The local energy plan should still be LGU led, because it promotes ownership. Problema sa mga plans crafted outside, baka hindi iembrace ng LGU kasi hindi sila involved dun. Dapat may ownership and it is inclusive because multi-stakeholder also promotes transparency and ownership. Mas mabilis ma-implement ang plan in the future if multi-stakeholder because it also streamlines your development process since there’s faster acceptance.”

Filipinos want to help make their community a better place and contribute to the betterment of their locality, as evidenced by Arcillas’s earlier sentiment on wanting to be part of the solution rather than be part of the problem. They just need to be given a chance to be part of that solution. And a multi-stakeholder energy plan gives them that hope for the future.



CHAPTER 4



Technical Teamwork Makes the Dream Work



Communication must also translate to a better understanding of the technical aspects of local energy planning and teamwork amongst different stakeholders as well, whether they come from technical or non-technical backgrounds. The safe space that energy development planning creates for all stakeholders to be able to ask questions and not feel judged invites better understanding in the long run for everyone, and produces better outcomes later on.

Many members appreciated being invited to the technical working group sessions even if they were not necessarily technical people because it showed transparency on the part of the technical aspects of the plan. Even Mayor Fortun, who was vice mayor at the time of the crafting of the plan, acknowledges that as the head of the city council, they didn't have the technical expertise on energy and greatly appreciates that the city council was invited to technical sessions of the BEDP.

"The city council had an initiative to have 16 key codes to be passed by the council and walang energy dun so when they did this, it was really welcome kasi we wanted an energy code to be passed. The energy development plan helped the council kasi andun na yung plan and we didn't have the technical expertise on energy so it really helped. The whole process brought together stakeholders, planners, technical people including the sanggunian. This was a great benefit, and definitely naging venue for synergy, different solutions per sector but you can include this all in one plan. Sabog lang dati kasi kanya kanyang mga solutions, pero ngayon pumapasok pasok na lahat ng solutions na possible, everyone had their own opinion but sabog kasi hindi pinagsama sama, but now they complement each other."

These complementing solutions from every sector also brings about ownership from the different stakeholders because, according to Mayor Fortun, it gives a voice to everyone. A lot of people have become too accustomed to technical people dictating a plan and everyone just following but through this multi-stakeholder, bottom up approach, everyone was involved in the technical work.

And Engineer Galaura agrees with this importance. In fact, it becomes integral for her to include non-technical people in the technical working group because the engineering needs to be translated to laymen. If technical people are the only ones included, then the communication and cascading aspect of the plan may not be as easy to understand.

She points out that the acceptance and receptiveness of elected officials to the plan is also a result of these officials being included in the BEDP process since the beginning when then Mayor Ronnie Lagnada invited then Vice Mayor Lawrence Fortun and all the members of the city council to attend sessions of the BEDP. All the technical work was presented to them by, not just the engineers but by non-engineers alike and they were given free reign to ask as many questions as they wanted. And it really helped the buy-in for the plan when a fellow non-engineer is able to explain to other non-engineers what the plan is all about.

With the BEDP being a public document as well, the more it becomes imperative that the information in the plan, despite being of a technical nature, is communicated in a non-technical way so that everyone can understand it, expert or laymen alike. This was one of the reasons the business community welcomed the plan's crafting and completion and appreciated being invited to the technical sessions despite not being technical experts themselves, said Arcillas.

“When you have the plan, it becomes a public document. If you want to read it and you want to understand the technical aspect, you can go online to read it and if you have questions you can go to the office and ask. Unlike before everyone was so blind, ano gagawin ni ANECO, ano gagawin ni city kapag ganito nangyari.”

This teamwork amongst technical and non-technical people alike became most evident for members of the academe who participated in the BEDP, such as Professor Orlando Natonton from Father Saturnino Urios University (FSUU). Natonton noted that anyone could participate and conduct power planning based on his experience in Butuan because of how it was presented and

laymanized, with the eventual challenge of, how do we expand and cascade this so that non-engineers, such as barangay captains who have no engineering background at all, can understand and help their barangay constituents understand.

“Even children have a basic understanding of electricity you can capitalize on. Just kids playing mobile legends on their cellphone and their need to charge their phone kapag na-lowbatt, they can already relate that to electricity and how much it costs. If you can teach it to kids, you can teach it to barangay officials.”

It also helped, noted Professor Luisito Tabada from Caraga State University, that the team from UPEEEI, who served as the technical experts and consultants for the BEDP did their best to laymanize everything to all stakeholders so that even non-engineers understood. They even created interactive seatwork like group projects that combined members from different fields to work together and cooperate, and this created a safe space for non-engineers to engage with engineers so they could ask question without the fear of being judged.

“They tried their best to laymanize and explain, napaka technical ng computation, even paggawa sa excel but everybody was grateful. And naintindihan nila. Like taga Mindanao Development Authority, yung participation ng MinDa nagtanong pa talaga sila, ano ito, because they really appreciate the target ng project, kaya they really pushed hard na matuto sila kasi na appreciate nila yung process.”

This teamwork also helped translate to better cooperation when it came to existing project proposals of the different organizations who were members of the BEDP. Professor Demetillo recalled how they learned a lot of things from the BEDP process that they incorporated almost immediately into a project they had with the Commission on Higher Education or CHED. Instead of pure equipment, they geared towards the procurement and use of solar panels because they knew that the city government was heading towards the direction of going solar.

They also increased their target for the utilization of renewable energy in the university to 15%, all because of what they learned from the lectures, coordination and teamwork fostered by the process, according to Demetillo.

"Yung mga renewable energy initiative, nagdetach kami kasi baka hingian kami ng ganito ni ANECO. But because we have this BEDP, doon namin nakita na talagang dapat may coordination. Dati, hindi namin dinivulge yung solar project namin kasi takot kami sa permits. Ngayon, isang tawag na lang, meron kaming gustong bagong ganito, anong gagawin namin, basta iparegister. Siguro may targets kami dati pero hindi ganun kalaki. But because of the lectures, we aspire that we be part of the BEDP kasi nakatarget tayo every year na dapat solar so gusto namin sa CSU mag contribute doon."

And ANECO General Manager Engineer Darwin Daymiel, also greatly appreciated this new found teamwork that ANECO had with other stakeholders, especially members of the academe and the business community.

"The discourse on renewable energy has changed really. The views have changed. They understand now rate increases of electricity. Businessmen gets angry easiest because power interruptions affect their overhead, but they understand much better now. Their energy literacy is on a higher level and the blame is not just on ANECO. Talagang nagbago yung understanding because of BEDP."

Cheerylyn Agot, from WWF-Philippines, was one of the representatives of Civil Society Organizations or CSOs during the BEDP process. She notes that communication of stakeholders improved for her because she noticed that they're all connected now on social media and with social media being such a big thing in the Philippines, it meant that they are in contact with each other more often, even beyond just work. This wasn't always the case though, as she recalls how things were in the beginning.

“Excitement had to be built amongst stakeholders for the BEDP. In the beginning, parang lukewarm ang reception or medyo unsure sila, but the mayor was so excited. Kaya lahat naging onboard kasi the mayor was gung-ho with the BEDP. Kinakausap niya lahat ng stakeholders, so everyone wanted to help kasi the mayor was so clear in communicating he wanted this and kept explaining to everyone the benefits.”

This is why having the LGU show leadership by pushing for the plan was identified as one of the most integral parts of the BEDP by almost all stakeholders. The willingness of the LGU and its leaders would also translate to enthusiasm amongst the members of the different stakeholder groups involved in the crafting of the BEDP, notes Engineer Dumpasan.

“The CPDD was appreciative of the inputs of each member, because these members also have their own mandates and workloads so nakaka glad they set aside time and workload to help with the plan. Masaya na active sila and have the drive and energy to give recommendations. Other members are suggesting or recommending more concrete steps but all to achieve the same objectives. I really appreciated every input of every member sa council. Hindi kasi nag-usap yung mga stakeholders dati. Conversations only happen during a series of blackouts, and then complaints, so may pasahan, sa transmission yan. So maganda is hindi pa major ang problem, may avenue na to talk and communicate amongst each other. So for example, may inaanticipate na mag end ang supply contract within the next year at least nasheshare na ng certain member yung current scenario or status habang hindi pa dumadating yung actual challenge. Naagapan, may nagcare na agapan yung mga anticipated problems.”

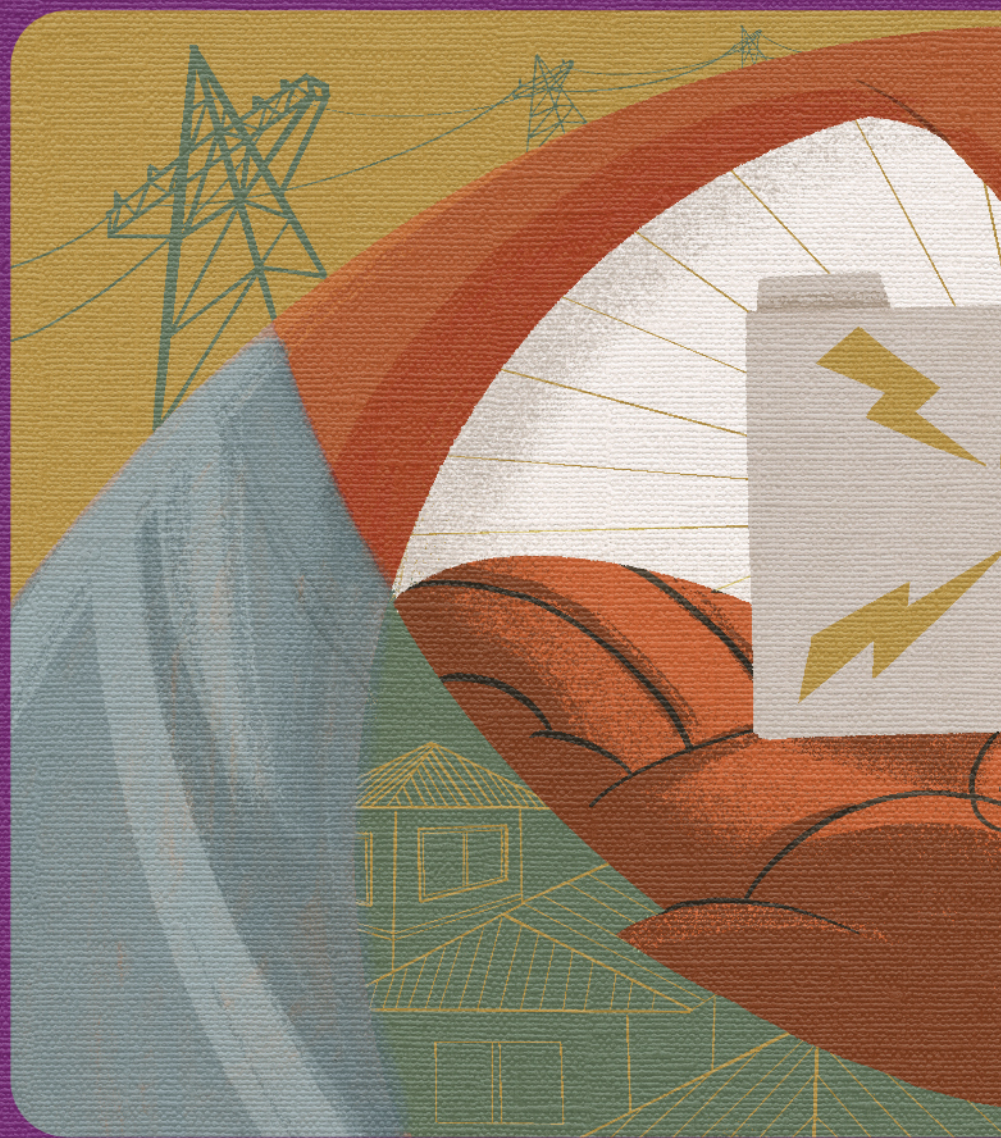
Policy cascading on a national level down to the local level was also much easier to communicate because members of the DOE would directly engage with all stakeholders on the grassroots level during the BEDP process. National government programs such as Energy Regulation 1-94 that outlined the financial benefits that a locality gets from hosting an energy project could be explained easier to give assurance to locals that this truly could work and benefit them, according to Rabulan.

This was important because most Filipinos feel powerless when it comes to power, ironically. They have no choice but to buy electricity from the grid and they cannot affect the rate at which electricity is sold to them. However, during the local development council of Butuan in which barangays were able to participate, there was a realization that they were not powerless when it came to power issues, according to Engineer Soldano.

“There is a realization that the stakeholders are not powerless when it comes to power, that just because you’re connected to the national grid it doesn’t mean you can’t do anything. It helped all stakeholders realize, kahit yung mga barangays realized that they can do something. During the local development council, they were the ones participating. They were really happy that the city could do something”

Power is for the people afterall. If all stakeholders, technical and non-technical alike, work together as a team with a shared responsibility, a cleaner but cheaper electricity system can definitely be achieved, one that realizes a common goal for everyone.

CHAPTER 5



Things To Look Out For



Though all the stakeholders from the BEDP have largely identified it as a success, throughout the planning process they still encountered many roadblocks they had to hurdle. These problems they faced were eventually overcome but they did identify them as important things to learn from to ensure the success of any local energy development plan.

The most important hurdle they faced that almost all stakeholders agreed upon was the lack of a consistent point person from different organizations. There were instances where a representative from one sector would change after a certain number of meetings and lectures. Because the person had changed, there was no continuity when it came to capacity development and technology transfer. Each time that member changed, they would also have to reorient the new member completely so that they could understand, noted Engineer Dumpasan.

“The pandemic led to changes in personnel. If possible make sure to have the same people doing the task, because new members lead to reorientation. Kelangan mag recap kasi kelangan mo to onboard another person, a new person or new member. It ensures the capacity development was shared to not just the previous members, but new members. So important talaga kasi kelangan ituro ulit, and a member who joins the later stage will want to be taught everything kasi they would want to understand also. This takes up more time.”

It was suggested that each stakeholder organization have at least two representatives assigned to the energy development planning process at all times so that if one person would have to change, whether it be because of resignation, transfer of assignment, promotion, continuation of studies or worse, death, there would be one more person who could continue the work for that stakeholder group.

This actually happened during the formulation of the BEDP. A key figure from the city LGU’s Planning and Development Department unfortunately passed away from Covid-19. The planning process stalled at that time and Engineer Soldano worried whether the planning process would actually still push

through. It thankfully did but other stakeholders echoed the same concern, which is why consistent and backup point persons should be appointed to make sure continuity of the plan is achieved.

Another thing they noted was that there should be a point person who constantly pushes for the plan as a backup to the city LGU. Despite everyone agreeing that the initiative of a city energy plan should be LGU led, there was also consensus on the role that CSOs played, particularly WWF-Philippines, when it came to coordination and organization of meetings for the formulation of the BEDP. Professor Ivan Cruz, one of the consultants from UPEEEI, reiterated this, especially when it came to laying out the groundwork for the plan.

“Without a point person na nangungulit, mahirap kung walang coordinator, kailangan may tao na ganun. Sa simula, walang tao dedicated talaga yung city kaya it was a recommendation to make an energy office to have a point person for this. Hindi ito magagawa without WWF in Butuan, without someone initiating the project. Nagkaroon ng Executive Order na even before we came in, so it laid groundwork. An executive order is always a good thing to have before starting the process.”

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He is referring to Butuan City Executive Order No. 003 issued in February 2019 which effectively created the city advisory power development council and the technical working group that created the BEDP. Other members of the academe echoed the same sentiment, such as Professor Demetillo from CSU.

“Without the coordination, this would not have been possible, and the support of the city government. It was coordination of WWF under Maám Che and the support of the city government for all the initiatives that made this work. It would still be good na hindi iba iba pinapadala. Dapat may isang office or point person talaga na pinapadala to have this continuity. Yung iba natatakot kasi hindi sila technical so na intimidate sila kasi hindi naman sila electrical”

Former mayor Ronnie Lagnada, also openly stated that it was WWF who initiated the first idea of having a city energy development plan, which he absolutely welcomed without any hesitation.

“Actually, just to be honest, this was initiated by a group from WWF, in relation sa green energy program nila. But in reality, it was also part of our master plan which we have crafted for the first five years under my term. I believe, being a tech person also, that utilities should also be planned, like power, water and communication, so we go specifically on power, which I was so excited na magkakaroon ng plan because for so long, wala talaga. Before an LGU can actually be a magnet to industrial investors, utilities have to be in place and the BEDP prepares Butuan to welcome them in our special economic zones that will be powered by renewables.”

But Engineer Soldano stressed that it was important, still, for the city to lead. Initially, she was a member of ANECO, the electric cooperative managing the distribution system of Butuan City. It was during the pandemic when the city needed more people to take over the point person role of crafting the BEDP that she was hired and transferred from ANECO to the city LGU.

“When I became part of the CPDD, I really saw the importance na yung mag lelead ng plan, dapat talaga si city, because the plan is for the city even if the NGO partner was assertive in organizing the letters to invite. The city had to catch up on staff, so when they did, the city tried to change that and become the lead and to check, ano pa bang workshop na kulang, with coordination of WWF still.”

Agot, for her part, understood the difficulty the city LGU and even other stakeholder organizations were facing at that time due to unforeseen circumstances brought about by the pandemic, which is why, as the NGO/CSO representative, she had no qualms with providing assistance whenever and wherever she could when it came to coordination for the BEDP, but also making sure it never came off as forceful.

“I also came from the LGU side and when facilitators from development agencies became too pushy, nakaka hi blood rin sila. Alam ko multitasking ang mga tao. It takes passion, patience, and prayer, knowing we are not doing this alone, especially with multiple stakeholders at different levels of energy, interest and understanding. To be an effective facilitator, to draw them all in and bugsay in the same direction, we need clarity of direction and sensitivity of surroundings, people and environment, checking the temperature all the time. Taga gising talaga is more like it. Not too pushy, just tamang nudge lang, and believe in the potential impact.”

And it actually worked. Every stakeholder agreed that this formula of a city LGU led energy plan with a strong CSO/NGO partner helping with coordination was actually one of the most integral things that made the BEDP a success.



CHAPTER 6



Can We Do This?
Should We Do This?



Whether other cities can or should do this has now become the question of many. The Department of Energy, according to Rabulan, is always excited whenever a local energy plan is going to be conducted, though having reservations on how it can be done given limited resources.

“We’re very happy. We always see it as a welcome move for a city and a province, though as much as DOE wants to do it for every city and municipality, there are more than 1500 municipalities, so it’s more about welcoming and seeing how can we help or assist.”

Sinocruz agrees and adds that smaller municipalities can conduct a different type of energy planning that focuses, for example, on just renewable energy, though implementation will still be a challenge, relating it to Republic Act No. 11285 or the Energy Efficiency and Conservation Act of 2019 which mandates every LGU in the Philippines to create and implement an Energy Efficiency and Conservation Plan.

“Sa energy efficiency, mandated ang LGU to create an energy efficiency plan. Dapat nakapasok yun sa energy plan na nakapasok sa comprehensive development plan. Pero hanggang ngayon, walang nangyayari.”

This is why capacity development was key for both the DOE and UPEEEI when it came to the future of local energy development planning. Every locality in the Philippines will have a different local context to which they would need to adapt their local energy plan to. Without the capacity and expertise in energy planning, this would be a challenge for any municipality or city to do. This is why support to replicate this is integral, both from a systematic point of view and a local capacity development point of view, said Sinocruz.

“We need to go to local Development Academy. Dapat dun natin ipresent yun. Kasi we cannot go everywhere and capacitate every LGU so much better if we tap the local Development Academy, League of Municipalities, Cities. Capacitate the institutions.”

Professors Cruz and Malquisto from UPEEEI, agree that every locality will have their own local context that an energy plan needs to be adapted to. Malquisto gave an example of how a 5th class, predominantly agricultural municipality might not have that big of a benefit from creating a local energy plan, especially when it needs to prioritize many other more urgent issues, noting that “the complexity of a local energy plan is anchored on the local context.”

Cruz agrees and cites that the creation of an energy plan should be viewed more as a challenging exercise and not as a drawback. Any LGU can start small now with a simple energy plan, according to him, and then it can be ramped up as it goes.

“I don't see the plan as a bible that cannot change and you must do it as is but more of like this is what we see as data points at this point in time and we based our decisions on this but during the update, you could get better data that you might want to change and you can go ahead and change that.”

This is why, they both noted, that it was still important to have a technical expert on energy planning to lead the process for any LGU. It did not necessarily have to be an electrical engineer because the skills for planning are different, and working in the field also changes as a practicality, which is why an expert on planning is important to guide the process. Accurate interpretation of the data is also part of that expertise, with assumptions needing to be checked again at the end and verified.

Cruz also noted it was the first time for him to appear before a local council to defend an energy plan to have it ratified and he felt very proud that the energy plan was passed because the city is compelled to implement the plan. The BEDP was defended by Cruz to the Butuan Local Development Council last December 2023. Energy plans adopted by LGU councils have starkly more teeth when it comes to implementation and thus assures stakeholders who participated in the process that the data they gathered, the computations they made and the solutions they proposed will become reality in the future.

For cities and municipalities who may have limitations currently in terms of technical expertise, funding or manpower, a simple energy profile, says Rabulan, may suffice. An energy profile is basically an information sheet of important data sets that can be used in the future once you begin crafting a comprehensive energy plan. These data sets could be anything as simple as the agricultural yields and agricultural waste recorded annually all the way to the strength and volume of waterflow in nearby river systems. All of this can be used later on to assist in making a full blown, comprehensive energy plan.

“In fact, kung smaller municipality ka, you should even plan better!”

This is what Mayor Fortun said when asked whether he thought other LGUs smaller than Butuan should still expend time and energy to make an energy plan. A firm resolve to plan energy needs is the first thing needed. Even a 5th class municipality could do it since there are always NGOs or entities willing to help. And help doesn't have to be based in your region, assistance can come from anywhere such as national agencies like the DOE or national academic institutions such as UPEEEI.



It was this mindset of planning better that really motivated former mayor Lagnada to push for the BEDP's crafting and implementation. He felt that in terms of economic growth, the Caraga region was one of the slowest, being the 2nd slowest in terms of GDP growth in the Philippines. However, when he looks at resources of the region, he feels growth should be higher. This is why a roadmap was so important for him because before you could ever access financing and technology, a plan would be needed.

“This is why development planning is the number one issue. It doesn't matter kung maliit ka o malaki, baka nga yung mas maliit na mga munisipyo may resources that they can utilize and complement eh. The data generated from the process is being used for cost reduction so it should be motivating for any LGU to do. Ang Pilipino ay to see is to believe culture, so they need to see the plan being implemented for them to completely buy in.”

The buy-in for such a plan has to be anchored, according to different stakeholders of Butuan, to the energy development plan being a living document. The point Professor Cruz made about treating it, not as a bible that had to be strictly followed, but as a living document was echoed by other Butuan stakeholders such as Professor Natonton from FSUU.

“Tapos na yung document, but it is a continued living document. It's not just a manual to be shared by the LGU, it's supposed to be a catalyst for sustainability. The key word is sustainability, hindi siya yung parang oh ito na yung recipe cookbook, kasi they will still be calling on us to capacity develop them, so I'm excited to see the next phase but we have to have a commitment that this is not just a mere manual but it is a living document.”

Even data gathering for just an energy profile, said Professor Malquisto, had to be modelled after this thought process of the energy development plan being a living document that could adapt to given situations.

“Data gathering is not so straightforward as just gathering data, you need to gather data in a certain way. There are nuances, because it's

not just data gathering as a complete data set, so the caveat is that just because you have an energy profile, you just fill it in and that's it. But it's not just about filling up a blank worksheet for every LGU, the energy profile manual has to be more a living document that the LGUs can adapt to their own local context."

This adaptation needs to be translated to implementation as well so that stakeholders will not be discouraged by the process, according to Professor Demetillo from CSU. If the plan is unable to adapt to unforeseen crises, and address issues related to the volatility of fossil fuel prices for example, it may leave people disillusioned with the plan. This is especially the case for a country like the Philippines that imports the majority of its fossil fuel.

"There really needs to be commitment of the city government to the energy development plan, because it can't just stay as a plan, it has to be implemented so that people see na may patutunguhan talaga ang BEDP."

45 GM Daymiel from ANECO asserted that other LGUs should not be discouraged if they feel they cannot craft something such as an energy development plan due to lack of expertise or financing. Based on his experience, other DUs around the country should also look forward to this. Anytime an LGU asks a DU to cooperate on crafting an energy development plan, it should be viewed with receptiveness and optimism to be able to work together.

"It's not about kaya ba ng LGU, it's kailangan na kailangan ng LGU. Dapat may harmonization, kasi if pabayaang mo lang ang DU gumawa ng bagay without cooperation with LGU, the roadblocks will exist and get worse. With BEDP, identified na yung areas for development, so ready na yung DU. They're just waiting, yung medium term plan for distribution lines help optimize resources for more resilient distribution lines. Kasi kung alam yung area and identified, pwede isipin ng DU, gawin pa nating overhead or underground? They can prepare for it based on area."

Mayor Fortun, for his part, understands the energy landscape and the concerns of ANECO much better now, as does the rest of the city stakeholders because of the BEDP. Prior to the energy development planning process, the level of understanding was really different. And he feels when other LGUs begin doing this, the region will also benefit from coordination of different local governments within that region on energy.

“The thinking that yung electric cooperative lang naman may problema dito, si ANECO, parang mayor lang yan, lahat ng problema, kasalanan ng mayor yan. Pagka naintindihan mo na yung ecosystem ng energy, magbabago talaga understanding. Naintindihan na rin yung about power rates because of the process. Isa ang need natin. Energy planning ay concern ng lahat. It would be really helpful if all had energy planning na coordinated amongst LGUs, because it can complement each other’s needs.”

This new found understanding will help bring down barriers when it comes to renewable energy projects as well, according to former mayor Lagnada. He mentions that it cannot be avoided that the political landscape of the country does lend itself to possible conflicts amongst neighboring LGUs regarding power projects but a proper energy plan could address this concern and foster cooperation.



“The situational approach helps prevent future conflicts from the LGU perspective. Ang nature ng plan mo is complementary to your neighbors kasi hindi sila magoobject kasi makikinabang rin sila and you listened to them also dapat. Kunwari, ikaw may solar, ako may wind, ikaw may hydro, then we can complement each other.”

This brings us to one key important aspect of an energy plan, the harnessing of renewable energy. The nature of renewable energy projects is almost always that the whole process becomes local. The fuel is locally sourced, whether it be agricultural waste within the city for biomass energy or a river system with strong water flow running through different barangays for hydro power.

Any LGU with the potential for renewable energy projects should tap that energy if possible. In fact, the national government under the DOE recognizes this and highly encourages all LGUs to explore renewable energy when possible, according to Rabulan.

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“There are LGUs that are aggressive and actively trying to do their own energy plan kasi they want to transition to RE. We want to empower them in developing local data. It's replicable and nothing hinders others not to do it. There is net benefit and no drawback. It will be assisted by DOE. We have to be optimistic, just by virtue of you doing a plan for DOE means you are being optimistic, kasi you are aiming for the betterment of the community.”

The business community of Butuan agrees. In fact, the idea that renewable energy, particularly solar, is expensive and not viable as a source of energy has long left their head space. They now view it as “sayang”, a unique Filipino expression to denote a wasted opportunity, according to Arcillas, the head of the Butuan Chamber of Commerce and Industry.

“On the RE side, we have the RE law but it seems not all electric cooperatives are ready to implement the law so it hinders growth of RE. Sayang kasi if you don't harness the free energy of the sun, of solar, especially sa residential. Though part of the plan na siya

ngayon, when the plan was started, wala pang net metering so I'm very happy meron na ngayon."

GM Daymiel really also recognizes these benefits from renewable energy, and even feels proud because of the demand it has generated for Renewable Energy Portfolio Standards or RPS, with many being eager to purchase them from ANECO because of their paradigm shift towards RE. And it's not just because of the cost, it's also about the environment that we all live in, according to him.

"There was understanding and acceptance for RE because of power development planning. One reason? Climate change, we need to take care of our environment. We need to arrest this threat by using RE."

Engineer Soldano from the CPDD personally agrees with this sentiment, which helped motivate her both as an engineer working in the city government and as a mother.

"The city government continues to implement and ensure the BEDP's implementation. I really want to see Butuan City be successful with achieving the goal of also helping the environment. It hits two birds with one stone. I care for the environment personally for my daughter. Butuan City is my home. I want not just economic development here in the city pero also magandang environment ba, healthy."

Agot recounts how it all started with a power crisis in Mindanao with the original motivations to conduct energy development planning in Butuan being focused only on cost, but then also later shifted to climate change issues because of the new found understanding.

"In 2010 there was power crisis sa buong Mindanao. They identified power as a key sector and there was clamor in Butuan. It wasn't about RE at first but more of where do we get our power from so we can prevent a future power crisis. But syempre as WWF, we steered towards cleaner options as a goal. All the people who opposed solar and wind and other renewables now have already been debunked so

more questions are encouraged kasi that means it can be clarified more.”

In fact, the Butuan Energy Development Plan has what we call RE Zones or renewable energy zones specifically identified to have high potential for development of renewable energy such as biomass, solar and hydro in the city. But also, at the same time, making sure these zones identified will not fall prey to roadblocks such as overlapping jurisdictions, right of way issues and conflicts on protected areas and ancestral domains. This was why wind energy, although identified in one area to have possible potential, was scrapped from the plan because that area overlapped with a no-go zone in a protected area.

Engineer Dumpasan from the CPDD who handled the issue when it cropped up, was happy to receive clarification because of the BEDP that this project was no longer going to proceed. He knew it would bring conflict within the city and was happy to receive coordination from national and local stakeholders alike so that everyone was on board as to why it would not push through.

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“When I first heard about the BEDP, I thought this is more developmental and proactive considering the goals and energy needs of the city. In the long run it’s less work because you are proactively planning the needs of the city. It’s less problems later. Short term and long term plans won’t be realized without supporting utilities such as electricity.”

This was a prime example of how an energy development plan helps an LGU to be proactive rather than reactive. Any LGU, according to Engineer Galaura, acting head of the Butuan CPDD, needs to be open to working with the academe and NGOs and CSOs in order to achieve this and all that needs is political will.

And the current mayor of Butuan, Attorney Lawrence Fortun, absolutely agrees.

“Feeling ko, hindi nga ganun kadali ang journey ng Butuan. It was really something new tapos may mga events pa tulad ng pandemic. Feeling ko hindi naman barrier ang culture, language dito. Feeling ko ito pa nga ang unifying natin eh. Isa ang need natin, parepareho tayong pangangailangan. Yung energy planning ay concern ng LAHAT, regardless of religion, regardless of culture, regardless of language, pareparehas tayo. In fact it would really be very helpful kung lahat may energy planning na pwede, na coordinated siya among LGUs so that pwede magtulungan. Pwedeng ang power needs ng other LGU can be supplied by one LGU, so parang synergy na rin siya ng iba’t ibang LGUs. Hindi lang yung energy needs ng Butuan ang titingnan namin and how we can plan them systematically, look at other energy needs in parts of the region and how it can complement. Kung kulang sila ng solar, baka kaya isupply ng solar namin. Wala kaming ganito, may wind sila dun, pwede silang tumulong sa amin so it would really be helpful mag tulungan sa planning.

It should not divide us, it should unite us.”

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Special Thank You for Interviews

(in chronological order)

Professor Orlando Natonton

*Industrial Engineering Dept. Chairperson,
Father Saturnino Urios University (FSUU)*

Engineer Darwin Daymiel

General Manager, Agusan del Norte Electric Cooperative (ANECO)

Cristina Arcillas

President, Butuan City Chamber of Commerce & Industry Foundation

Professor Alexander Demetillo

Vice President for Finance and Admin, Caraga State University (CSU)

Professor Luisito Tabada

Chief of Presidential Management Staff, Caraga State University (CSU)

Cheerylyn Agot

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Mayor, Butuan City

Engineer Ronnie Lagnada

Former Mayor, Butuan City

Engineer Jake Dumpasan

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This publication recounts the experience of developing the Butuan City Energy Development Plan, a testament to the power of collaboration. It reflects the collective efforts of local government, national agencies, the electric distribution utility, academia, development partners, and dedicated professionals working together toward a common vision. May this Plan serve as both a practical roadmap and an enduring symbol of what can be achieved through partnership, shared purpose, and a commitment to a sustainable energy future.



