



Interview synthesis

July 13th, 2018

**Public Collaborative for Puerto Rico's Energy Transformation**

**How to read this document**

In June and July 2018, Rocky Mountain Institute (RMI) and Institute for a Competitive and Sustainable Economy (ICSE) staff interviewed 39 stakeholders in the Puerto Rican government, private sector, and civil society, as well as key external stakeholders from outside Puerto Rico, (see list of interviewees in Appendix A, and interview questions in Appendix B) to explore their concerns and aspirations for the Public Collaborative and the Puerto Rican energy sector as a whole.

Apart from section titles and headings, the text in this document is entirely quoted (but not attributed) from the interviews. The interviews were conducted in some cases in English, in others Spanish. Some quotes have been modified for clarity and translated to English. A Spanish version of this document will be made available.

In some cases, the quotes are repetitive about an issue. In others, there is divergence and opposition in thinking. When reading this document, the purpose is to be with the tensions that arise – in yourself and in the text – toward developing a fuller understanding of the ideas held among stakeholders. Note that this document does not attribute any particular quote to any particular individual.

This document has been created to prepare and inform participants to the Public Collaborative for Puerto Rico's Energy Transformation. We will use this synthesis for a basis of discussions at the July 19-20 and August 23-24 meetings.



## Contents

<b>What is going to happen, and who is in charge?</b>	<b>3</b>
<b>How do we reduce costs?</b>	<b>4</b>
<b>How have hurricanes impacted the electricity system and the island?</b>	<b>5</b>
<b>How are we thinking about reliability and resilience?</b>	<b>6</b>
<b>How do we manage politics and so many stakeholders?</b>	<b>7</b>
<b>What technology options are available to us?</b>	<b>9</b>
<b>Who is setting the vision? What's the plan?</b>	<b>11</b>
<b>What is to be done with PREPA and the privatization effort?</b>	<b>13</b>
<b>What is the role of the regulator? What should be the regulatory priorities?</b>	<b>17</b>
<b>What is my role in the transformation?</b>	<b>18</b>
<b>How is the historical system holding us back?</b>	<b>19</b>
<b>What should we do with microgrids?</b>	<b>21</b>
<b>How do we improve electricity service?</b>	<b>22</b>
<b>How will privatization differ from past ones, which have not gone well in Puerto Rico?</b>	<b>23</b>
<b>How can we improve PREPA?</b>	<b>24</b>
<b>Why have past collaborations failed?</b>	<b>25</b>
<b>What should the new policy look like?</b>	<b>26</b>
<b>How can we do better with utility planning and transparency?</b>	<b>27</b>
<b>How can we bring people together to co-create a solution?</b>	<b>28</b>
<b>What are some of the long-term outcomes we'd like to see?</b>	<b>29</b>
<b>How can we fail to achieve our goals in this collaboration?</b>	<b>30</b>
<b>What can we do to make this collaborative successful?</b>	<b>33</b>
<b>Appendix A: List of Interviewees</b>	<b>38</b>
<b>Appendix B: List of Interview Questions</b>	<b>39</b>



**What is going to happen, and who is in charge?**

Uncertainty in the energy system is one of the main problems.

Which energy policy the Government will be pushing toward the future? The uncertainty is the benefit that will result for the country.

Where is the plan? Who approves it?

What is going to happen to PREPA?

It is unclear who is running this show.

Focus on repaying bondholders, right?

What sort of community representation is involved in this?

How are projects going to be financed and repaid?



## **How do we reduce costs?**

Electricity is the source of all the needs of our society.

Once costs are incurred, costs are stuck with customers.

What if electricity gets even more expensive?

No one knows when and how the bankruptcy process will finish.

Residential rates are incredibly high, cost of living is very high.

Cost of electricity is high even with subsidies.

We need a clear and fair rate schedule.

Investors and [business] owners do not trust PREPA and the Governor. One day they'll tell you it's one rate or one day it's another, or they create additional taxes.

The biggest gap is money.

We need to figure out how we are going to balance the budget, hopefully without increasing rates. Otherwise, the spiral will continue.



## **How have hurricanes impacted the electricity system and the island?**

Many businesses will remain closed after Hurricane Maria.

After Hurricane Georges in 1998, FEMA brought forth a series of recommendations, including improved resiliency and continuity of essential services. Those recommendations weren't implemented.

It took two months to admit that an emergency manager was needed.

Most people don't expect the problem to be solved right away, but they want to be assisted and want explanations.

After Georges, every business owner or person who could afford it knew they needed a generator.

The system was not designed to manage catastrophic events.

During hurricane recovery, the main issue had been the lack of information.

If this same hurricane came through Miami, what would the recovery look like?

After Maria we find 5,000 to 8,000 businesses have closed – and are unable to reopen.

The infrastructure was reconnected but not improved.

Because of Maria, businesses can no longer get insurance policies to hedge against business interruption in the event of a hurricane. PREPA's response was simply that bad.

More than 10,000 people are still without electricity.

Distributed energy can be good; however, if there is no distribution system, what do you do?

Communications were also affected by the lack of power. No power – no communications.

There is no real transformation in process.

Access to electricity is a human right.

A lot of people are trying to "help", but lots of ulterior motives are at play.

There was a huge pile of coal ash outside the coal plant when Maria hit and that ash was dispersed everywhere due to the winds.



## **How are we thinking about reliability and resilience?**

Average Puerto Ricans are thinking about reliability, blackouts. No one would talk about this if not for the storm. This is not a bigger issue than it really is.

How can we have resilience if we don't have reliability?

Aguirre is in southern Puerto Rico, and the population is in the north. Not a great place to site generation.

Transmission lines are fragile.

For some, reliability is more important than cost.

Maximum resilience is solar on every roof and batteries in every house with sharing between them.

What is the definition of resilience?



## **How do we manage politics and so many stakeholders?**

Everything needs to be competitively bid. They won't get the best cost otherwise. Cronyism.

Influence is behind closed doors.

The executive branch doesn't know what is going on.

Without proper mechanics and if RFPs are run in closed conference rooms – this process will be a sham.

Deterioration of the electric system contaminated by partisan politics and lack of consistent policy.

Bills get passed, become laws, and then aren't enforced. We were supposed to be at 12% renewable energy by 2015.

Senators Seilhamer and Bhatia consider coal and natural gas to be cheaper and better. They use the AES plant as an example of cheap power.

The influence of Congress towards a particular direction as the condition for funding. That is a big problem.

I wish I could be cautiously optimistic, but history shows that the politicization of processes in Puerto Rico is a terminal cancer.

The Governor is the final decision-maker. But the Senate and Congress have to step up.

Even the FOMB and PREC are at each other's throats.

Both parties use the electricity system as a political pawn.

The union is looking more to the benefit of the country rather than our own benefit.

The government is the most important stakeholder.

The Governor is looking for a quick solution to this. Then you have the federal interests, Wall Street, etc. -- these are the parties that always win in the end.

PREPA could have a devastating effect on future plans.

PREPA is not the problem – the damage was self-inflicted by the partisan politics.



I am concerned about the governance of the electrical system. The system is basically political, and it shouldn't be.

There's no respect for PREC.

FOMB does whatever they want.

In the past we have lacked a consistent public policy on energy, which creates costly uncertainty for investors.

Need to set a baseline for what the current energy policy is. We have not implemented the policy.

I am glad Seilhamer is leading the effort to develop a public policy and is trying to do so in a bipartisan way.

The generation of energy should be in the hands of those who produce it. Consumers should be the owners and administrators of public services.

Governor's power over PREC needs to be restricted.

Situation today is very different than 10 years ago. The union walkout 10 years ago scared politicians.

A true public policy was never created and now we are paying the price.

Act 57 has put us in a less favorable position because it gave the impression that a public policy was enacted when in reality it was just a regulatory framework.

We need strong governance. Good progress was made when PREC was established as an independent body. There were changes made that make it less independent and if we continue down that path, PREC's effectiveness is going to be impacted.

Government should be on the sidelines and act more as facilitators.

Title III proceedings. What's going to happen with the bankruptcy?

Who controls the system? We are concerned that the system is controlled by foreign agents, like generation companies, solar generation companies, and others. So we could end up with a modern system, but foreign controlled.

If we do not have a plan for energy policy, we are going to have this same discussion next year.





## **What technology options are available to us?**

Using fossil fuels is necessary, but we should use them the least amount possible as the system transitions to renewable and solar energy.

I am worried about the barriers to enter the market.

I'm concerned about overbuilding gas units and how that gas would be available and useable here.

Our concern is that restrictions are imposed – like surcharges on solar generation – to support a long-term, fossil fuel generation system in order to assure a small number of (fossil generation) clients.

Over capacity is an issue and will discourage microgrid development. Interconnection delays result from over investment.

Renewables lead to competition with the PREPA system.

Energy efficiency should come first. Everyone benefits except for fossil fuel interests.

Not everyone understands that there are significant costs associated with renewables. Solar is not free and I think expectations are way too high for renewables.

Do rooftop solar everywhere, reducing line utilization.

The losses from the North/South imbalance are large. On top of that we are burdening the South with the pollution from the fossil generation, especially coal.

We need to avoid unnecessary investments in centralized generation.

We should determine the perfect combination of energy resources that we could employ to make us economical and resilient.

We need to develop resiliency codes and protocols for new generation.

Does it really make sense to invest in generation infrastructure in the South?

We need to boost investment.

T&D is too fragile and the next months are critical.



Natural gas in the short term is important for base load, but controversial to environmental groups and likely unnecessary in the long term.

We need to isolate the regional needs of the island and start to identify capacity that can deliver against those regional needs. Perhaps we can divide the island in 7-10 regions.

We need to build in flexibility so the system is adaptable and can respond to Puerto Rico's unpredictable macroeconomic trends.

How much energy will be distributed vs. how much will be centralized?

We should better understand the role and importance of the IRP, that's where many of the specifics regarding grid architecture are determined.

Any large capital investment should be approved by the Commission before going forward.

We need to make sure critical infrastructure has sufficient backup power.

Smart metering is key.

Hydro generation for remote communities should be considered.

Waste to Energy technologies need to be considered for their high efficiency generation.

Consider undergrounding T&D infrastructure in critical areas.

A rapid transition to 100% renewable energy, including electric vehicles.

MATS compliance issues are adequately addressed.

Greater attention paid to energy efficiency and demand response. Currently, the thinking seems to be to build more generation, but low-cost energy efficiency measures benefit everyone across the island. It could also spur job growth in that sector.



## **Who is setting the vision? What's the plan?**

The Legislature could set the vision right now.

We need to establish more clarity around the difference between energy policy, energy regulator, and the utility.

The government is making decisions in a way that is not necessarily coherent and well-thought out. We should first define what kind of energy sector we need to support our society, improve quality of life for residents, and improve economic conditions prior to defining the governing structure. From there, determine what is the most appropriate governance structure to achieve those goals of social wellbeing and economic prosperity.

Puerto Rico can become an exporter of technology.

Everybody has an idea, but nobody puts a price on it.

I am worried we might continue with the same model that has gotten us in this mess in the first place: centralized, fossil fuel generation.

The Building Better report: are things really going to be better?

We need agreement on what is a transformation – "from something to something else."

H.B. 1481 was a badly done exercise by the administration.

We need to get around the private interests and preferred vendors who have undue influence.

When am I going to be able to choose my electric company?

There are many stakeholders and views that cannot be put in a single document or plan.

Many studies and "talks," but there is not a structural plan. There is not an IRP, but there is an RFP for the sales of assets. There is not a plan, there is not a road map.

System should be based on endogenous energy, affordability, and the promotion of local participation. Clean, renewable energy based on solar rooftops with a goal of 10% renewables in the future.

The Governor has been bad at communicating what is going on. It is scary and the bill [H.B. 1841] illustrates how little the Governor knows about what is going on.

Equity – allow for participation, even of the poor sector. Do not leave them stranded with costs.



How the current administration will work with current stakeholders.

PREPA and PREC need the best talent available.

A human right for energy, which has been transformed into a commodity. Beyond the transformation of the system, the social element is important.

Markets. Stimulate markets.

An IRP for Puerto Rico's electrical system is required rather than only for PREPA. An IRP is the only way to constrain costs moving forward.

There is a lack of futuristic vision towards the development of the system.

We need to empower the people.

Need to allow for a space of contribution in the sector to serve as a catapult to a new state, but still respond to the day-to-day pressures of the economy.

Need to take whatever steps to ensure that the process is objective – legislation is the right way to do this.

Can imagine a future where all your energy source is in your pocket – need to throw your aspirations as far into the future as possible.

This process will most likely lead nowhere.

How should the \$15 billion be spent? And should it go towards regionalization?

How do we depoliticize the whole process so that we can achieve the greatest common good?

We must understand that the situation is very different in Puerto Rico than in places like Texas or Montana.

We need to decide the level of influence we will allow from the fossil fuel industry.

The government should not impose its vision.

We need to start thinking and living like a Caribbean island that is always at risk of getting hit by large atmospheric events; all we can do is become better prepared to withstand them.



## **What is to be done with PREPA and the privatization effort?**

PREPA is the main problem. People don't trust PREPA anymore.

Competitive markets can be self-regulated and remain competitive at the same time, at both centralized and distributed levels.

Privatization is one of many ways to address the politicization of PREPA, but not the only one.

We need an open bid-procurement.

A well-run public sector can be more efficient.

Selling the PREPA plants will not help. We will get locked into old technology.

The fact that they already want to do the concession before the vision is dangerous. Everyone thinks this is crazy.

Governor wants advance a model that is not feasible in Puerto Rico.

Imagine destroying all the rooms in your home while you're living there.

There needs to be a market-based approach.

We should not substitute a public inefficient monopoly with a private monopoly.

The system that we have is frozen in time. It was based in the 60s and 70s and never evolved.

How do we create healthy competition but also regulate the competitors?

I am concerned that if and when we privatize, we could end up falling into the hands of private investors who will dictate the future of the country, not the people of Puerto Rico.

Operations of PREPA are appalling. 53% of consumer calls aren't answered. There is a lot of customer frustration.

Because PREPA is government owned, if PREPA acts imprudently, you can't say that shareholders are going to eat this. Cost gets passed on to consumers instead. This is a big problem in terms of accountability.

Privatization is not the only strategy.



PREPA can't afford to pay the legacy debt, but can't afford to keep going with fossil fuel dependence.

Lack of customer focus by PREPA. That is a symptom of the organization.

Puerto Ricans don't care for or like PREPA's fiscal plans.

Bring PREPA to the 21st century!

PREPA is organized such that they lose about 15 to 20 percent of the energy through the process of transmission – and are charging us for that cost.

The ideal model is the cooperative and this is happening spontaneously among organizations, people, and municipalities.

I'm not a believer that the private sector is better than the public sector.

Not sure they will find buyers for the existing fleet.

People say we need to privatize PREPA for whatever reason: invoices not coming or blackouts, which are not the real issues, they are temporary ones.

I don't understand why the PREPA IRP sessions are closed sessions. Is PREPA trying to hold people hostage to their comments?

The FOMB will probably have to approve any concession or sale.

Although there is a lot of buzz around privatization, not everyone is pro-privatization -- there is actually substantial divide on this topic.

How will legacy debt be handled? Lots of decisions depend on this.

We need to eliminate the 'no consequence culture' at PREPA.

We should allow the P3 process to run its course; the P3 process provides clarity on how the process should happen.

What generation is sold through the privatization process and how this will affect the penetration of more distributed generation.

For the sale of PREPA assets, we need a strong piece of legislation that allows for new technology, better reliability, and increased resiliency.



What is competition? How many producers can we have in Puerto Rico? 3-4?

I don't have a stance on a public vs. private model, or a municipal model for that matter. All I want cost-effective and reliable power for Puerto Ricans.

We need to improve customer service at PREPA.

We need to maximize federal contributions and FEMA funds. This is the right time to ask for funds and then we can privatize down the road.

The concession of T&D and the sale of assets is incompatible with the restoration of the grid. The privatization process needs to be done with a clear vision in mind.

In the short term, the P3 process clauses for agreements need to be in accordance with the needs of the people.

We need to force PREPA to unbundle so the true cost of the different pieces can be assessed. A buyer needs to know what they are buying.

There is a risk with neoliberal privatization, as it is tainted with both private AND political incentive.

I am suspicious of privatization as the answer and golden ticket to making PREPA work.

The transaction needs to happen. It is overdue. I applaud this government for having the will to go through with it.

99.9% of investors prefer private over public. Private does a much better job and is more efficient.

How will we know what to sell without a solid IRP in place?

The real question is when does renewable energy become the real priority for investment? How do you emphasize distributed generation, microgrids, and private capital?

How will the federal court be involved in blessing new contracts?

Even with a good regulatory framework and strong regulator, it doesn't matter without a good process on how to transition PREPA. That needs to be transparent.

The plan should be compared to the FOMB approved budget for PREPA and if disagreement exists, highlight why the point of contention is an important consideration.



PREPA and its workers are well intentioned.

We need a faster and more efficient takeover of PREPA compared to the telecom privatization.

A cost-benefit analysis should be conducted between the privatization of PREPA and its continued structure as a public entity.

Private investment, within the current PREPA ownership structure, is aligned with PREPA's goals of affordability, reliability, and resilience.

PREPA is full of good people, but they don't know any better.





**What is the role of the regulator? What should be the regulatory priorities?**

Regulations have been promulgated without much input. PREC doesn't ask for input.

I'm proud of the commissioners we have. They are responsible and knowledgeable.

How will the Energy Commission be finally constituted with independence and decision making?

PREC is focused on being ethical and sound in analysis, but they forget they are a public entity. They don't talk to the public. If you don't inform the public, people don't know or understand what PREC does.

The new legislation gives PREC 15 days to look at privatization plans and does not allow for follow-up discovery, requests for information. This is inadequate and more like creating a rubber stamp for the commission to bless it.

Commission required PREPA to get pre-approval for IRP projects. PREPA ignored the commission.

No one is backing the commission.

Balance of regulation is to not be overbearing, but provide enough clarity to spark the market.

What about performance based energy efficiency? Energy efficiency resource standard?

We need to solidify the role of the independent energy regulator.

We need to give regulatory proceedings sufficient time; documents need to be available with enough time for the process to add value. PREC must have sufficient expertise and knowledge.

How to establish a regulatory framework during the privatization and bankruptcy?

As long as the governor gets to select the representative from PREC, the governor can control the energy process. If the governor had to pick from a pool of applicants it might be less political.



### **What is my role in the transformation?**

I am very confused, and I think many people are – people are more uncertain than they are knowledgeable.

Ideas need to be followed-through on and executed.

They do not have eyes that we have.

We better make this right.

There is a lot of divergence. It will take a lot of time and effort to get to an agreement.

The consumer needs to part of the decision-making process.

Whatever is done – will it have broad political support?

How is the plan going to work with so many stakeholders?

We need quality over speed in the legislative process.

We need to start making more data-driven decisions.

It is important to understand that “We can do this work.” We need investors and consultants, but “we can do the work.”



## **How is the historical system holding us back?**

Two natural gas pipelines were rejected because of a lack of education. Consumer education is key in facilitating execution of projects. For example, the natural gas storage depot passed because consumer education started 2-3 years prior.

We need to enforce interconnection regulations for distributed energy systems.

The process for wind and solar farms has been disorganized, without consideration of technical data studies, or facts, leading to a lack of trust.

1990's saw a diversification of energy sources with the addition of coal and natural gas.

PREPA has not followed a standard construction permitting process.

Renovation plans had been developed previously but were never executed.

Common for key projects to be started and not completed. For example Via Verdy: over \$30M in promotion, analysis, and studies. Similar story for the Gasoducto del Sur, where almost 30% of the cost was lost.

The original electricity systems in PR were small, localized systems in urban centers. The island depended on much smaller systems. A variety of solutions, like the origins of electricity in PR, may be the future.

Renewable energy is most important because it has been proven to be more flexible than other forms of generation; you can generate as little or as much energy as you need, from enough energy to charge a cellphone to the output from a 600MW plant.

There is insufficient redundancy in terms of emergency planning.

Maintenance has been insufficient and seems to be perpetually postponed.

Our current compliance certification process is questionable.

How did we allow ourselves to be in a position where we don't really have an alternative to bunker fuel?

We can't just look at economic factors. Electricity from the coal plant is unarguably cheap, probably the cheapest, but if we only consider economic criteria we can end up with much worse problems down the line.



The electric system is designed poorly and reflects years of misplanning.

The biggest issues are trust and uncertainty. If you don't know what's going to happen with regulation or technology, you are not going to invest.

Laws don't actually matter here. The court system is very weak. Ballot measures in the past simply have not been implemented.

The net energy metering (NEM) regulation is good on paper, but PREPA is moving too slowly and it is too weak to be enforced.



## **What should we do with microgrids?**

The net metering interconnection process was so difficult we needed to enact a law. PREPA has been delaying the implementation, as suspected.

Need to turn to microgrids due to the lack of generation capacity in the north.

How do cooperative and municipal microgrids fit in?

Our timelines for microgrid interconnection are much much longer than on the mainland because PREPA is so resistant.

Our system is designed for micro-grids. "Sectionalization" of the system is done daily. That was how the system was restored after Maria.

Microgrids will leave the poorest stranded with the costs.

A spontaneous movement is taking place by the population to look for disconnection from the [electric] system and to create systems that serve communities and municipalities.

For distributed sources and microgrids, how can those be done in an interconnected, dynamic way so that we limit outright defection.

Everybody cannot defect from the grid, so the best solution will still need a viable product and price that everybody can afford.

How will microgrids and the macrogrid work together?

A system with municipal microgrids and localized grid managers in control. A few of the larger cities with strong tourism and industrial bases could have their own, private utilities.



## **How do we improve electricity service?**

Rates have been very unclear, with numerous different rates. At some point there were over 200 different rates depending on the industries and who was asking.

There was a commission order for PREPA to create key performance indicators. Not sure what happened to that.

Rate uncertainty due to PREPA's estimated invoice practice; PREPA could revise invoices even over a year later.

Lack of power affects all sectors; business interruption due to lack of power is a big issue.

Inconsistent and unreliable power is costly due to the damaging effects on equipment.

Unreliable service that does not catch up with state of the art technology.

PREPA is not responsive to customers.



**How will this privatization differ from past ones, which have not gone so well in Puerto Rico?**

Privatizations during the 1990's: unsuccessful PRASA attempt and PR Telecom's confrontational, 'bloody' transaction. Those public utilities could be improved.

Our experience in the past with privatization has not been good. We need to learn from history.

Water utility was done by concessions: Compañía de Aguas (1999), Ondeo (2000). Both concession models failed.



## **How can we improve PREPA?**

PREPA does not do what this commission says. They only listen to the Governor. They have an interest to maintain the status quo.

At one point, PREPA put together Key Performance Indicators. Having them report on their progress and making it transparent on their website and in reports would be a very good thing.

On a positive note, PREPA's employees have significant control over the operations.

PREPA keeps the government hostage because of the union.

PREPA will continue as a monopoly. There is nothing I have seen to suggest the contrary. There is no succession plan as far as I can tell.

PREPA needs to have a response plan, which did not happen. There was no assessment of the system.

There is a strong, 'no-change' culture within PREPA, which began in the 1970's when vendors, unions, retirees, and politicians effectively took over PREPA, pursuing their own interests.

You have a monopoly who has done what it wants for 70 years. The culture is toxic. In the 70's you start to see rent-seeking behavior. Politicians started to plant people into the Authority. This hasn't changed much today.

There has been no organizational support for the professional management of PREPA. PREPA is a story of political deal-making as the basis of a semblance of management. As a result, PREPA hasn't been well-managed in decades.

PREPA has become a big, powerful company and no Governor has been able to control it.

The non-managerial staff is PREPA's biggest asset.

Up until now, the interconnection process with PREPA has been very challenging, but we are worried it might become impossible.

Before we had a body of personnel that was in charge of maintenance but now we have trimmed down the maintenance team; as a result, we end up needing to pay much more for mainland crews to come do the work that could have been done by Puerto Ricans at a much lower cost.





### **Why have past collaborations failed?**

There have been several efforts in terms of collaborations, but collaboration has proven to be hard and complicated. Some of the actors just don't participate if they do not like the discussion.

Discussions usually end in disputes.

Differing visions need to be converged into a common vision.

When there are power imbalances across parties at a negotiation table, it is common for the party with less power to just "stay calm and block".

Often we limit ourselves to keeping the conversation too "light" and don't touch on the really hard topics. We tend to stay on the surface -- on conversations that don't go too into the details.



### **What should the new policy look like?**

Rather than creating a big, new law (and in doing so, replace 57, 82, 83), we need to create a coherent structure reflective of existing law. Amend/build on existing laws.

A well-regulated market structure that encourages competitive pricing and reliable service.

A plan that addresses job creation and growth around the island.

The solution needs to have bilateral support from within the Puerto Rican political system. This will increase buy-in from the public.

New legislation that reinforces the power and independence of PREC.

Stronger enforcement of PREPA's IRP is needed.

If the Senate sets basic objectives of what it wants the next cycle of investment in Puerto Rico to look like. The FOMB fiscal plan and PREPA's updated IRP should be the foundation of these objectives.

The state energy office becomes the main energy advisor to the Governor and implementer of policy, as opposed to PREPA.

If fiscal control of Puerto Rico is taken back from the FOMB.

A strong regulatory framework that is not politicized and not exclusively founded on economic principles.

The long-term plan is insulated and protected from political changes. Historically, policy has shifted every four years, which is not helpful.

Elected decision makers, as opposed to the P3 office, Citi, and Rothschild, guide the process, are involved, and have control of the outcome.

That the regulatory structure developed is sophisticated enough and the physical infrastructure becomes strong enough so normal Puerto Ricans don't all have to become energy experts. A buildup of trust in the energy sector.

Policy makers receiving more education about the nuts and bolts of the energy sector and potential privatization process.



## **How can we do better with utility planning and transparency?**

Attention should be paid to market design instead of specific plants in specific locations at the beginning stages of this process.

Any T&D concession should be a competitive bidding process, adhere to industry standards from the mainland, include collective bargaining agreements, and have a preference for hiring Puerto Ricans.

Equal consideration of all information submitted to decision makers.

A comprehensive, coherent effort to develop a plan while considering numerous, alternative scenarios. A clear explanation of the solution and why it was picked over other alternatives.

A slower, more methodical approach that defines a clear strategy, sets expectations from the beginning, and identifies clear outcomes.

It needs to consider the long run implications of the solution.

Special consideration should be given to the press and spokespeople used to advocate for the plan since politics is such a sensitive issue in Puerto Rico.

A plan should contain short term (<5 years), medium term (5-10 years), and long term (10+ years) aspects. This would increase the plan's credibility.

It should be sustainable, but efficient and profitable for everyone.

Short term sacrifices in the name of long-term benefits and lower cost energy should be considered.

The process should be open and transparent, with a publicly available report.

Personal interest needs to be set aside to focus on building consensus around the public good.

A plan needs to combine local and federal efforts, but in general, less government is better.

Excessive labor regulations should be included in the planning process as well, since labor and energy are two main factors of economic growth (or decline) in Puerto Rico.

Technical feasibility of any proposed solution must be evaluated.

For this roadmap to be successful, the country needs to define what the energy system should be, not what the capitalists want to sell or what they want to burn.



## **How can we bring people together to co-create a solution?**

The vision requires broad-based stakeholder education because people need to know what is at stake, but right now most people feel totally detached from the energy sector.

We need to encourage the population -- the consumers -- to become more responsible.

Contributions from stakeholders, policymakers, and the Legislature. Academics, NGOs, and experts both within and outside of Puerto Rico should also be included.

Educate and empower the people by giving them control.

What are the roles and responsibilities of those who have proposed transformations?

Clear understanding and translation between Spanish and English speakers.

Full consensus for the plan moving forward is needed.

Including all unions is important, and not just one or two. Respect for labor and their participation in any reform effort is absolutely necessary since they will remain an important part of the solution.

The people and communities of Puerto Rico must be sincerely engaged from day 1 in the formation of this new vision. Ensuring that the decision makers take this input to heart is critical.

An understanding that participation does not imply or equate to consent or agreement.

The process should engage entities that already have the trust of different communities.

Increased knowledge sharing among parties.

The plan should be generated outside of the political realm.



**What are some of the long-term outcomes we'd like to see?**

The creation of a more resilient, more cost effective energy system for the island.

If Puerto Rico can move on from its post traumatic stress disorder after the hurricanes and shed its colonial stress disorder.

Different parties coming together around the things that unite them and ensuring their futures are not defined by others.

Puerto Rico becomes a showcase for the planet in terms of incorporating distributed renewable energy technologies, microgrids, and redundancy into its electric grid.

A grassroots, community-based education and advocacy effort focused on solar and energy storage.

Puerto Rico can exploit its singularities: very spread out, large grid for such a small geographical area and very unique topographically. Renewables and storage have challenges, but if you can create the right structure so that companies evaluated to come to PR conduct R&D, give something back to the people, especially in remote communities, and prove concepts with projects, we can become an exporter of technology and know-how. This is one niche where PR can become a positive example and improve its economy.



### **How can we fail to achieve our goals in this collaboration?**

Greater levels of control over PREPA are not achieved.

If the government is too involved in regulation and the market.

The power of the independent regulator is diminished.

Repeating the same mistakes from the past.

Political stalemate occurs and no progress is achieved.

If local disagreement allows FOMB to take control over the situation.

No evidence of change or efforts toward greater efficiency within PREPA.

Parties are not able to agree on any common ground.

Participants are not communicating openly and honestly.

Certain, important stakeholder groups choose not to participate or exit the process.

Equality among the various participants is not perceived or realized.

The technical aspects of the discussion are too far in the weeds and certain groups are unable to fully participate or understand what is being explained.

Labor interests are under-represented throughout the process.

Participants come out of the process more pessimistic than optimistic about the future.

Certain voices being valued or represented more than others.

Everyone pushing their own agendas.

Special interests from abroad or “disaster capitalists” maintain their self-interested positions and do not have the greater good in mind, dictating the future of Puerto Rico.

People from the mainland come to the table assuming they know all of the answers.

Bondholders or other interested parties interfere with the solution.



Lack of transparency.

Alternative options are not developed or communicated to interested parties.

This report is not taken seriously by policy makers.

This report is not released to the public or disseminated among decision makers.

If all we do is transfer ownership of assets and everything else stays the same.

Tradeoffs among various factors are not clearly articulated and explained.

Important issues are not thoroughly discussed, even if agreement cannot be achieved.

Facilitation of this stakeholder engagement and the process is not implemented correctly or is ineffective.

Roles and responsibilities of different parties are not articulated.

100% solar is advocated as the solution, but it cannot be relied on for the entire electric system.

Energy theft across the island is not addressed.

If the plan to privatize PREPA continues.

Puerto Rico's debt situation is not part of the conversation and how it will be addressed.

Not conducting this process in conjunction with the FOMB fiscal plan.

Accountability is left unaddressed.

Examples of energy transitions and lessons learned from around the United States and other parts of the world are not used to inform the process.

Professional standards (across governance, financing, and electrical systems) are ignored throughout the planning process.

The transformation results in higher rates of inequality.

The mismanagement of resources occurs.

The procurement process is not open and competitive.



The implementation timeline is infeasible or is too long.

The plan's cost is unreasonable and results in higher rates.

It is not understood to be an iterative process. The first attempt will have weaknesses and not anticipating unexpected results will result in suboptimal outcomes.

Inadequate supervision over the implementation phase occurs.





### **What can we do to make this collaborative successful?**

Ensure that this is a transparent process and that the message is that this is a transparent process working towards the greater good, not individual or special interests.

We need to address lack of integrity, lack of candor, lack of transparency in a lot of place before successful transformation happens.

Consensus processes do not make policy in Puerto Rico, politicians do.

A collective voice provides integrity to the process.

Design an initiative that allows us to work together while knowing that we are different.

An open process.

You need alignment from all stakeholders, particularly PREPA and the government. All are important and are the backbone with great knowledge and experience.

Gauge interest and levels of support from other lawmakers (besides Senators Seilhamer and Bhatia) on both sides.

Whatever the outcome, someone will be upset. But that means you are doing your job.

Cost analysis of the ideas needs to be completed.

Paint a roadmap, with goals and objectives listed.

Describe where are we going to be in 5 years, 10 years, 15 years.

Have as an objective setting clear and measurable objectives for public policy over time.

Don't repeat the DOE meeting experience.

Get real: talk about immediate issues.

Avoid "teaching the natives about energy law."

Don't waste people's time.

We need to recognize there is not just one answer here.



You should illustrate what a non-incremental path looks like and describe if there is an ability to leapfrog and skip a few steps in the energy transition. You can do so by looking at where things are today in more mature markets, and how can we help Puerto Rico skip a few steps.

Very good that we are having these conversations so that parties can bring up their concerns upfront.

There is lot of animosity. It's a topic that requires us to be incredibly cautious.

Listen to all views.

Have a collaborative message.

Clearly outline the vision and mission and then identify the actions needed to get there.

Look at examples of former similar effort and case studies.

The data of the FOMB shared shows that only 12.5% of funding will stay in PR and that is not true. We need to figure out a way to ensure money stays in PR.

We need to develop a pilot energy project. For example, we could develop one in Vieques or in Culebra where we need to think out of the box.

This effort is in a correct timing.

We need to educate people during this initiative.

Do not have false expectations that everybody will be happy.

Having an open mind and offer possibilities – not agendas – being realistic and convincing will be the correct strategy [toward success].

Actively engage participants in designing and defining public policy.

Explain what you desire from participants and what value you see in understanding their perspective.

Give case studies from other islands.

Properly addressing bias amongst stakeholders is essential.

Getting people to sit at the table is critical.



Separate people who talk a lot.

Evaluate how you [RMI] influence the process.

In-person presentations to decision makers is most important, in comparison to academic publications, mass media, or newspapers.

You will need to be good at navigating conflict within the room.

We need space for people to get on their soapbox but then really structure sessions.

The challenges are going to be to make information easily understood so people can reflect quickly and discuss quickly. We've just all participated in a dozen conferences in the past month. The most successful ones are those in which small groups work together around a table (6-8 people) and report back their findings. Small groups are fabulously effective in neutralizing the extremes and getting to a consensus.

Make it iterative, not top-down.

Need to make sure that the spokesperson is unbiased.

You need to talk to everyone and know your stakeholders and their agenda. A lot of people will tell you what you want to hear without having any intention of being able to follow through or any ability to follow through with things.

You should work outside of partisan politics.

You need a strong facilitator.

You need a specific agenda.

It needs to be grounded in reality.

Make sure you make it clear that "You are the facilitator."

The need-assessment conversations are good.

Lot of people will lie to you. And you won't know it.

Concerns need to be considered up-front.

Everyone knows what we don't have, we should focus on opening up possibilities and letting people understand them.



Try to be as neutral as possible, but at the same time be able to send succinct and clear options.

Do not allow one topic to dominate.

Small groups are very effective.

You should have breakout session.

You need to host experts.

Interview a couple of potential participants on the privatization.

Ensure the process is iterative and not one in which stakeholders are talked-down.

Creditors should be part of the process, although I am unsure if they would attend.

Community groups implementing solar projects should be included in this dialogue.

Bring in psychologists, sociologists, community leaders, industry, government people, governor's office, PREC, and energy policy office.

Invite a diverse group of people even problematic persons.

Professors from UPR would be good to invite.

Make sure this effort includes several comprehensive and diverse groups like: Unions, Environmental groups, Professional and trade associations, Prospective buyers, Coops.

Select who you are going to bring to the meeting, private sector and government. You'll need people with experience in diverse areas. "People like Seilhamer ...and Bhatia too... that helps..."

You should have the largest number of stakeholders as possible: Environmentalist, Sociologist, Community leaders, Casa Pueblo, Industry, Renewables, Natural Gas, T&D, Government Office, Energy Public Office, Union – UTIER.

We need to have the real stakeholders: Siemens, GE, retirees, employees, former PREPA buyers, PREPA, the people that really move the authority. However, most likely they may not attend.

You need to invite retirees/employees from the Authority. If the Authority is not in the process, then we aren't going to accomplish much. The Authority is not going to want to go.

The Cooperativa de Seguros Multiples should be included in this process.



Success is measured by diversity of those who are attending.

Talk to and be upfront about this process with people from different branches of government.

Ensure that the public can participate by holding alternative venues to share input, for example: regional public, public commenting period, electronic comments, public charrettes.

You may want to consider having a community town hall in a couple of places to get input.

The success of any workshop is measured by the diversity of opinions of those who are attending.

Invite as many people as possible, try to bring everyone together.

Design this effort so that it can be seen by as a public interest solution.

The biggest issue in this initiative will be perception.

We need to figure out whose voice carries more weight. E.g. I am for renewables, others are focused on fossil, we all know what camp people are in and what we need to decide is who or what side will carry more weight.

In the end the institutions that do have particular interest will influence the process. Institutions, like ours, without particular interest should have more weight.

Based on my experience on the PREPA past meeting, the contributions and positions of people need to be weighted properly. I don't know how different views and objectives may be weighted. We were divided in groups at random. That could be good, not to mix-up all interests on the same group.

Shouldn't be a report. Instead, provide options.

There are more ways to measure success than just economic success.

Analyze the information in an unbiased manner.

Produce a document in a timely manner to inform government public policy.

Our output should have maximum visibility.

I recommend that whatever is put forward is done in a way that recognizes the unique context of Puerto Rico, and not just, "this is a great best practice from NY or CA."



## Appendix A: List of Interviewees

1. Alex Breckel
2. Alicia Lamboy
3. Angel Figueroa
4. Ángel Rivera de la Cruz
5. Arturo Massol
6. Cathy Kunkel
7. Carlos Pares
8. Clarisa Jimenez
9. Edison Avilés-Deliz
10. Emilio Colón-Zavala
11. Francisco Rullán
12. Héctor García
13. Ingrid Vila
14. Jaime Cuevas
15. Jaime Sanabria
16. Janine Migden-Ostrander
17. Jenn DeCesaro
18. Jonathan Marvel
19. Jonathan Castillo
20. Jorge Colon Gerrena
21. Jose Guzman
22. Jose Ortiz
23. Juan Rosario
24. Luis Alonso Vega
25. Luis Aníbal Avilés
26. Malu Blázquez
27. Manuel Reyes Alfonso
28. Marc Roumain
29. Nelson Ramirez
30. Noel Zamot
31. Pablo Vázquez
32. Pedro Nieves
33. PJ Wilson
34. Rafael Llupart
35. Ramón Luis Nieves
36. Rodrigo Masses
37. Ruth Santiago
38. Sergio Marxuach
39. Steven Spears



## **Appendix B: List of Interview Questions**

1. What are your main concerns and uncertainties related to the electricity system?
2. What pivotal experiences from the past, good or bad, are important lessons for the future?
3. What major decisions with long-term implications do we currently face, that need to be tackled in the coming year?
4. From your perspective, what would make this project successful?
5. From your perspective, what would make this project a failure?
6. What advice do you have for the design and facilitation team?
7. Is there anything else you would like to add that I haven't asked about?