New Mexico Solar Energy Association

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Promoting Renewable Energy and Sustainability since 1972

PNM 2015 Rate Case Summary

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This summary is intended to provide some background information about the PNM 2015 Rate Case, along with alternative approaches to address some of the issues raised in the Rate Case.

1. Rate Increases

1.1. What's driving the rate increase?

PNM is a state-sanctioned monopoly, and state statutes require that all of PNM's expenses related to supplying electricity to its NM customers be passed on to its customers. Capital expenses and operation and maintenance expenses for generating plants, the "Grid," and solar and wind systems all MUST be folded into fixed customer charges and/or KWH usage rates. Charges and rates also MUST include a fixed percentage profit (currently 10%).

PNM's expenses fall into several categories – fixed expenses related to equipment and facility costs; variable costs related to the amount of electricity supplied, and general business expenses for customer billing and PRC-related legal expenses.

PNM also likes to include expenses that don't really meet the criteria established for them to be passed on to ratepayers. And then there are those expenses that fall in-between "for sure" and "no way," such as PNM's proposed expenses for "optional" Balanced Draft pollution controls at the San Juan Generating Station, and PNM's proposed expenses for adding Palo Verde generating capacity at twice the current "market price."

1.2. The KWH Charge

Your electric meter measures how many KWH of electrical energy you consume, and your PNM bill charges you for the number of KWH you use times the rate per KWH. KWH charges vary by rate class, by season, and for larger users by on-peak and off-peak time of use.

PNM's figures show that the proposed KWH rate for the "average" residential customer will increase by 4.5% for summer months (June – Aug), and 2% for winter months (Sept – May). This is a surprisingly modest increase, mainly because of the proposed fixed customer charge.

1.3. The Fixed Customer Charge

Monthly customer "access" charges are seen on NM Gas Company bills, telephone bills, cell phone bills and water bills. These charges don't depend on how much you use of what the "utility" supplies. PNM's current customer charge is $5.00/month – much lower than the customer charges on those other "utility" bills. NM Gas Co's monthly access fee is $11.50. In Albuquerque, ABCWUA's customer charge is $16.88/mo. The City of Santa Fe's water utility customer charge is $18.42/mo.

NM's rural electric co-operatives all charge significantly higher customer fees - Kit Carson Electric (Taos) charges $14.50/mo; Continental Divide Electric (Grants) charges $17.00/mo; Mora-San Miguel Electric (Las Vegas) charges $20.00/mo.

The argument that increasing PNM's customer charge from $5.00/mo to $13.14/mo (i.e. an $8.13/mo increase) places a disproportionate burden on PNM's low income customers has some merit, but most of NM's low income rural electric customers have been paying more than that for many years.

The proposed fixed customer charge increase will apply to all residential customers, including PNM's residential solar customers. It doesn't specifically target solar customers.

1.4. Rate Riders

Rate riders are charges that the PRC has approved which allow PNM to collect fees and/or make adjustments for ongoing expenses that it incurs between rate cases. The "Fuel Cost Adjustment" is an example. Expenses for PNM-owned PV and wind systems are covered by the "Renewable Energy Rider." Rate riders are so named because they're usually calculated by multiplying a rate factor by your total KWH usage for the month.

1.4.1. Fuel Cost Charge

Charges for the cost of coal and natural gas that PNM generating plants consume are passed through to rate-payers without any PNM profit mark-up. Since fuel costs aren't always stable, PNM adjusts fuel cost charges up and/or down between rate cases by using rate riders. Because natural gas, as well as coal fuel charges, have been dropping, in 2016 PNM will be "refunding" earlier fuel cost rate rider charges that exceeded the actual fuel costs. This refund will **temporarily** reduce customer bills and therefore **temporarily** reduce the average overall rate increase that PNM has proposed.

1.4.2. Energy-Saving Charge

PNM is required by state statute to promote and support energy efficiency initiatives. The costs associated with these iniatives are passed on to ratepayers via a "cost-effective energy saving" charge that is currently calculated as 3.195% of the total of your usage charge + any fuel cost adjustment + the Renewable Energy Rider + the fixed service charge.

2. Rate Class Allocations

PNM customers are divided into specific rate "classes," each with different rate schedules. Residential customers are further divided into 3 different "blocks" depending on how many KWH they use during a month. PNM is trying to get the PRC to "reverse" a long-standing policy of applying rate increases more or less evenly across all rate classes, and instead allow residential customers to be charged more and commercial customers to be charged less. PNM claims that residential customers are being "subsidized" by its other customers. PNM is justifying its proposal by arguing that the PRC should "reallocate" rate charges to more closely correspond to the actual cost-of-service that PNM has determined for each class.

This is an ideology-based argument which follows current conservative policy thinking.

PNM is offering a BIG rate decrease to public universities (both UNM and NMSU are members of NMIEC, a powerful lobbying organization).

It's important to note that state statutes require that all PNM expenses related to supplying electricity to its NM customers be recovered through customer charges. No matter how these expenses are allocated, PNM is "guaranteed" to be compensated. So if reallocation won't

affect PNM's earnings, why is PNM proposing to restructure the rate allocation? PNM says it's a question of "fairness" – that rates should match PNM's determination of the expenses associated with providing service to each rate class, and that "subsidies" should be eliminated. This proposal appears to be based on political ideology – much like the movement to replace the graduated income tax with a regressive flat tax where everyone pays the same percentage of their income no matter how wealthy or poor they are. And PNM isn't really proposing to eliminate subsidies. In fact, PNM is proposing additional subsidies for its larger business customers.

3. Managing Peak Demand

3.1. Why is daily peak demand an issue?

Demand for electricity varies throughout the day, and there are also seasonal and weather-related demand variations. The supply of electricity must be constantly adjusted to meet the actual demand. Electric utilities meet varying customer demand by combining steady "base load" generation capacity, like that supplied by coal and nuclear plants, with "peaking" generation capacity provided by much faster responding natural gas plants. When peak demand grows while base load demand stays more or less the same, utilities must add additional peaking generation capacity even though such peaking plants won't need to be used much of the time. Because regulated utilities earn a profit on capital equipment expenditures, adding additional peaking capacity is profitable for them.

Peak demand is greatly affected by the use of air conditioners in the summer, and by electric heating loads in the winter. Utilities can try to "encourage" customers to shift usage to off-peak times by offering significantly lower off-peak rates.

3.2. Time of Use (TOU) Rates

PNM currently offers time of use (on-peak and off-peak) rates to residential customers who rent a special meter from PNM. The current and proposed residential charges are listed below.

	Current	Proposed
Customer Charge:	$20.81	$23.37
Meter Charge:	$5.29	$2.73
On-peak :	$0.206/kWh (8AM-8PM)	$0.166/kWh (10AM-10PM)
Off-peak:	$0.066/kWh	$0.111/kWh

Very few residential customers opt for the current TOU option. With the proposed increase in residential off-peak rates, PNM is actively discouraging residential customers from shifting to TOU metering. This means that residential customers will have no effective way or reason to adjust their energy consumption to decrease their peak usage. And it will also actively discourage PNM customers from purchasing electric cars which would normally be recharged at night taking advantage of much lower off-peak rates.

Business customers are billed at TOU rates based on their rate class. For "Small Power" and "General Power" classes, which cover most NM businesses, PNM is proposing to significantly decrease on-peak rates and increase off-peak rates. PNM's proposed business TOU rates will encourage on-peak usage and discourage off-peak usage, i.e. they will make the daily peak demand problem worse, not better. But PNM will get to add more "peaker" plants, which will be good for PNM's bottom line.

3.3. Time of Use Periods

Demand for electricity typically peaks in the early morning as residential customers turn on the lights and prepare breakfast, and business customers open the doors. Peak demand increases again in the mid- to late afternoon and early evening hours. During those times, PNM brings natural gas combustion "peaker" plants on-line, which can compensate for quickly changing demand, but are far less efficient and far more expensive to operate.

PNM's On-Peak hours are currently 8AM to 8PM. PNM's latest data shows that electricity consumption is decreasing overall, but the daily peaks are increasing and tending to extend past 8:00PM. Both of these trends are problematic for PNM. Supplying peak demand is quite a bit more expensive for PNM than supplying non-peak demand. That's PNM's argument for shifting the peak-rate time. It's also obvious that they think they can make more money with this shift (they wouldn't want to do it otherwise).

In NM, as in other states like California, peak demand usage is now extending later into the evening. PNM is proposing to shift the On-Peak hours from 8:00AM – 8:00PM to 10AM - 10PM. There is no reason that PNM has to use a 12 hour on-peak window. For example, Kit Carson Electric uses 6AM – 1PM and 4PM – 9PM as their peak hours; Continental Divide Electric on-peak times are 6AM - 9AM and 6PM - 9PM; and Central NM Electric uses 6:30AM – 9AM and 4:30PM - 10:30 PM. The on-peak time period(s) should track the time intervals when peaking generators are required and generating costs go up.

Business class customers on time-of-use rate schedules who have solar PV systems are "net-metered" at the rate that is in effect when they supply electricity to the grid. When these customers use the PV system electricity that they generate during on-peak periods, they avoid paying for PNM-supplied electricity at higher on-peak rates. When these customers' PV system output exceeds their usage during on-peak periods, the excess supplied to the grid is net-meter "credited" to their account at the higher on-peak rate.

The current PNM on-peak period of 8:00AM – 8:00PM overlaps all significant PV system production time. The on-peak intervals used by the NM co-ops noted above do not. PNM's proposed on-peak period of 10:00AM – 10:00PM still overlaps significantly more PV system production time than any of the co-op on-peak intervals do.

In any case, PNM's proposed on-peak time interval shift will only affect the relatively low number of business class PV system owners whose PV systems generate more electricity than the business uses during the period from 8:00AM to 10:00AM.

3.4. Smart Meters

The traditional electric meter must be read manually, and it offers no "smart" options. A meter that can be read remotely would greatly reduce meter reading expenses. A meter that tracks time of use is necessary to support TOU options. A state-of-the-art smart meter supports TOU and demand response billing and can be read and updated remotely and/or over the internet. PNM has resisted suggestions to upgrade its residential customers to "smarter" meters. PNM's business customers have meters that support basic TOU but when TOU hours change, those meters still have to be reprogramed manually. PNM is proposing to charge ratepayers $250,000 to cover the cost of manually reprograming PNM's antique TOU meters to handle the proposed shift in the TOU period. That money should be spent on modern smart meters.

3.5. Demand Charges

Normal daily peak demand is a relatively slow increase in electricity use above a constant base-line or base-load level. Large business customers often draw lots of power in "spirts" or short term peaks. Supplying this sort of short term high power load demand requires extra generation and distribution resources. Residential and "Small Power Service" customers aren't subject to this sort of demand charge because the load variations they cause are relatively small. The "General Power" and higher usage rate classes pay a high customer charge plus "demand charges" based on their maximum power draw i.e. the maximum Watt load that they place on the grid. In addition to their KWH usage charges these customers are also billed for their highest average 15 minute peak power demand during the billing period. Supplying high short term peak power requires larger transformers etc., increases grid transmission losses, and requires additional fast response (peaking) generating capacity. PNM is proposing to significantly decrease customer charges and significantly increase demand charges for these business classes. In most cases, these two changes will cancel each other out, but some customers with high surge loads will see their bills go up. That should encourage those customers to try to reduce their short term peak power draw.

4. **Modernizing the Grid**

4.1. Base load generation

Base load generation sources, such as coal-fired and nuclear-powered generation plants, as well as some older natural gas plants, provide a more or less constant output. They aren't able to respond quickly to short-term demand changes or to compensate for unplanned generation plant output changes. Across the country, coal-fired and nuclear base-load plants are being seriously challenged by lower cost natural gas combined cycle generation plants.

4.2. Peak load generation

The stability and reliability of the electric supply depend on the ability to match generation output to demand on a minute-by-minute basis, as well as the ability to compensate for generation output changes caused by scheduled or unscheduled generator downtime. Peak load generation sources, such as natural gas combustion "peaker" plants and the latest generation of natural gas combined cycle plants have the ability to respond quickly to demand changes and to short-term generation plant output changes.

4.3. Generating Plant Efficiency

Coal-fired plants and natural gas combustion "peaking" generation plants are not very efficient, which means that they require significantly more fuel per kWh, and discharge more pollution per kWh than more efficient plants. When pollution controls are added to these plants, their operating efficiency gets even worse.

Older natural gas combined cycle plants have higher efficiencies and discharge less pollution per kWh, but they aren't able to respond quickly enough to compensate for all demand and supply changes.

Modern natural gas combined cycle generation plants are the most efficient and least polluting of any fossil fuel plants, and they're able to respond fast enough to compensate for demand and supply changes, but they are also more expensive to build than natural gas combustion plants.

4.4. Modern Smart Meters

Many electric utilities and even more electric co-ops have installed smart meters for their residential customers. PNM has not. The meters that PNM supplies to its business class customers have limited capabilities. Modern smart meters enable a range of billing, TOU, and demand management options. A "smart grid" requires the use of smart meters.

5. Paying for the Grid

5.1. The "Value" of the Grid

The Grid is the distribution system that allows reliable electricity to be "delivered" to individual residential and business customers. The Grid allows electricity to be "traded" between utilities and between states and regions of the country. In spite of its vulnerabilities, the Grid increases the reliability and "robustness" of our electrical energy system. Rural electrification extended the Grid to relatively remote rural America and thereby revolutionized life on farms and ranches and in small rural communities. The Grid is the only way that relatively remote wind and solar sites and utility-owned or contracted RE sources can be connected to utility customers and larger energy markets.

We will be using the utility Grid for a long time – and there are certainly clear benefits involved for grid-tied solar PV customers:

5.1.1. grid-tied solar customers are completely dependent on the grid for their "100% efficient unlimited capacity energy storage" (far larger and more "efficient" than Tesla's proposed "PowerWall" batteries).

5.1.2. current net metering rules allow PV customers to "store" excess summertime KWHs for wintertime use – something that no normal battery system can accomplish.

5.1.3. the grid is what allows solar PV customers to supply clean electricity to other grid-tied customers (and to be compensated for it).

But keep in mind that there is no significant "utility-scale storage" currently being used on PNM's Grid. The "virtual" storage that grid-tied net-metered solar PV customers enjoy is, in fact, mostly based on using coal- and natural-gas-fired generation to substitute for storage.

5.2. Fixed Costs vs Variable Costs

Fixed costs don't change significantly as the amount of electrical energy generated increases or decreases. Many costs associated with distribution (the Grid) fall into this category.

Variable costs are associated with the amount of electrical energy generated.

The combined fixed and variable expenses that PNM incurs, which are associated with generating and distributing electricity to PNM customers must, according to statute, be paid by PNM customers.

PNM bills include a fixed customer charge which is paid no matter how much electricity a customer uses, and a variable charge based on how many KWHs of electrical energy a customer uses.

The total of fixed and variable charges has to cover PNM's expenses plus a PRC approved profit. Currently, PNM's fixed customer charge is only $5.00/mo, so most of PNM's fixed costs plus all of PNM's variable costs are being recovered from KWH usage charges. Any reduction in how many KWHs PNM sells interferes with PNM's ability to cover its fixed infrastructure expenses.

5.3. Decoupling

Separating fixed costs from variable costs and structuring customer bills so that the customer charge and rate riders cover more or most of the fixed expenses while the KWH usage charge covers the variable expenses is referred to as "decoupling." On a cell phone bill, for example, there's a fixed monthly service charge, plus charges for voice and data based on the number of minutes of use. If electrical generation and distribution infrastructures were owned and operated by two different companies, then customers would pay one company to use the distribution system (the Grid), and pay other company(s) for generation services.

PNM owns and operates both the generation and the distribution systems. Adjusting the balance between fixed customer charges and variable KWH usage charges to more closely match actual fixed and variable expenses is a challenge for all electric utilities.

5.4. Decoupling Account

Since both fixed and variable expenses can change from year to year, while rate cases are filed every three or four years, a "decoupling account" could be used to smooth out the associated cash flow. In theory, such an account would allow adjustments to be made between rate cases instead of only as a result of a rate case. In the end, at least in theory, the result would be the same.

6. **Electrical Energy Conservation**

Energy conservation reduces electricity consumption and reduces customer bills. But if you are in the business of generating and selling electricity, a reduction in demand for your product is bad news. One reason PNM gives to justify its proposed rate increase is "energy efficiency programs." PNM is mandated to meet energy efficiency targets, and it is compensated for the expenses incurred by its energy efficiency programs, but with its current rate structure, selling less electricity means that there is less income to meet its fixed costs. The more energy efficiency programs and advances reduce the demand for PNM's electricity, the more pressure there will be for PNM to raise rates. "Decoupling" has been proposed as one way to deal with these "conflicting" interests.

7. Renewable Energy Generation Sources

PNM and other regulated utilities are mandated by NM's Renewable Portfolio Standard to add significant amounts of RE sources to their system capacity (20% by 2020). As summarized in PNM's 2015 Rate Case filing, PNM has a total of 350MW of RE (wind, solar, geothermal) capacity. PNM customer-owned RE (solar PV) capacity is approximately 38MW. Both PNM "owned" and customer-owned totals are increasing, but it should be pointed out that PNM's "utility" RE sources are, by far, the major sources of "clean and affordable" energy in PNM's territory.

Wind and solar PV generating sources are less expensive than ever, and that's a very good thing. In many areas of the country with relatively high electricity rates, wind and solar are already competitive with traditional fossil fuel generation sources - - but only when the sun shines and the wind blows.

Utilities like PNM like to exaggerate the variability of wind and solar PV sources, and the difficulty of integrating them into a "traditional" utility operating model. Exaggerated or not, there are very real issues involved.

Currently wind and solar PV systems can supplement traditional generation sources but not replace them. PNM must be able to supply its customers with electricity under all normal circumstances.

Wind and solar PV generation capacity can and should be used when they are available, but when they aren't available, traditional generation sources have to be ready to step in.

A few concentrating solar generation plants incorporating thermal storage are operating in the US. These plants can continue to generate electricity for a while with no solar input. But that operating time is measured in hours not in days.

There is at least one major generating system (in Florida) that couples a modern combined cycle natural gas plant with a concentrating solar thermal system. These two systems are quite compatible. A similar generating plant was recently proposed for use in New Mexico (but not by PNM).

"Utility scale" energy storage for wind and solar PV is needed before wind and solar PV can actually replace traditional baseload and peaking generation capacity. In the meantime, the only practical formula is wind, solar PV AND natural gas powered generation.

8. RE Sources and Peak Demand

Wind and solar PV combined with relatively modest utility scale storage will probably be deployed first to help meet peak demand by "load shifting," i.e. supplying electricity to meet daily peak demand that is cleaner and ultimately less expensive than building additional natural gas combustion generation peaking capacity.

Even without storage, solar PV systems can play a larger role in meeting afternoon peak demand by either including tracking mounting systems or by simply orienting their panels west of due south. Almost all commercial PV installs are fixed-mounts oriented due south. There is limited production before 10:00 AM except in the middle of the summer. If the proposed on-peak time shift from 8:00AM to 10:00AM is approved by the PRC, it will be even more advantageous for commercial customers to orient their panels west of true south so that they produce more energy during the highest peak demand afternoon hours. Re-orienting PV panels for more afternoon peak production would be an important step in dealing with the peak demand problem. It's a win-win – good for the customer and also good for PNM.

When PNM residential customers are eventually provided with smart-meters and can take advantage of TOU rates, then PNM's rooftop solar residential customers will also be able to "earn" more by orienting their panels west of true south, and morning production from 8:00 to 10:00 will be irrelevant. Until then, there's still an argument to be made that customer-owned PV should be oriented west of true south. PNM actually saves money when they credit net-meter PV customers for their "excess" power at the normal residential rate and then re-sell that power to business customers at the on-peak rate or even to other residential customers at the residential rate during afternoon on-peak periods, because peaking generators drive up the cost to PNM of supplying that electricity. This is a financial benefit to PNM, even if they won't admit it, and it can help "soften" PNM's opposition to customer-owned solar.

9. 2015 Rate Case Issues and Alternative Proposals

9.1. Basic Rates and Customer Charges

KWH usage rates and fixed customer charges and rate riders will be going up – there's simply no alternative. State law requires that PNM be compensated for all expenses related to generating and distributing electricity to its customers. That includes adding the renewable energy sources that are mandated by NM's Renewable Portfolio Standard. The net result of the

rate case has to be a combination of fixed charges and variable charges that satisfy that requirement. Rate cases have become something of a "game", and both sides know the way the game is played. PNM's proposed rate case increases always come in very high, and the PRC always "defends" NM ratepayers by reducing what PNM actually gets. In the 2015 Rate Case the PRC will certainly pare back PNM's proposed rate case increases significantly.

There is an argument to be made for increasing the fixed customer charge, but there's no reason that the charge has to be the same for all residential customers. There are 3 residential class "blocks," so it could make sense to adopt a 3-tiered customer charge, with Block 1 customers paying less than PNM has proposed, and Block 3 customers paying more.

9.2. Rate Increase Allocations

PNM's proposed rate allocations may be good for PNM, but they're not necessarily good for all of PNM's customers. PNM will be compensated for all of its related expenses in any case. It's the PRC's responsibility to protect the interests of PNM ratepayers. There is no reason for the PRC to reverse a long standing policy of allocating more of the expense burden to high energy users, and less of the expense burden to low energy users. In an exceptionally poor state like New Mexico, placing more financial burdens on low income citizens is clearly counter-productive.

9.3. Daily Peak Demand

PNM claims that its proposed on-peak and off-peak residential rates will allow residential customers to respond more responsibly to PNM's daily peak demand challenges. In fact, by significantly increasing off-peak rates, PNM's proposal removes any motivation or ability for residential customers respond appropriately to peak demand challenges.

PNM has more baseload capacity than it can sell, so it would seem to be in PNM's best interest to encourage residential and business customers to buy more off-peak electricity. PNM's proposed plan to increase off-peak rates will do just the opposite.

This daily peak demand issue is driven by the difference between off-peak-period base-line electrical demand and on-peak-period maximum electrical demand.

Daily Peak demand can be managed by:

9.3.1. Adopting measures to reduce on-peak demand, like:

9.3.1.1. additional tiered rate structures for high peak-time usage

9.3.1.2. "load-shedding" incentives which pay customers to reduce their consumption during on-peak periods

9.3.1.3. incentives for highly efficient heat pump based heating and cooling systems

9.3.1.4. building energy efficiency incentives that reduce electric heating and air conditioning loads.

9.3.1.5. It may seem odd to allow PNM to offer rebates for its customers to install "white roofs," but white roofs would have a significant impact on reducing summertime peak air conditioning loads.

9.3.2. Adopting measures to increase off-peak demand, like:

9.3.2.1. rate incentives to encourage night-time electric vehicle charging

9.3.2.2. rate incentives for people on fixed incomes living in "all electric" homes and apartments. Many of NM's poor cannot afford to heat and cool their homes and apartments with electricity, so they go without. PNM could sell more electricity to those customers if it offered them lower rates.

9.3.3. Requiring that solar PV systems be oriented west of due south to maximize their contribution to meeting afternoon peak demand.

9.3.4. As a last resort, adding state-of-the-art natural gas combined cycle plant capacity is a much better long-term choice than adding the low-efficiency natural gas combustion "peaker" capacity that PNM is proposing, because modern combined cycle plants can satisfy both base-load and peaking requirements, they are highly efficient and relatively "clean," and they are compatible with renewable sources such as wind and solar thermal and solar PV.

9.4. Modernizing the Grid

There is NOTHING in PNM's proposal related to "modernizing the Grid." At the least, PNM should be required to install state-of-the-art smart meters. This would eliminate manual meter reading expenses and "empower" PNM to offer TOU options and demand-response incentives that would benefit PNM's residential and business customers, and actually give those customers the ability to contribute to managing peak demand.

9.5. Energy Conservation

NM statutes mandate PNM to meet energy efficiency targets that reduce electricity consumption. That is clearly bad for PNM's bottom line. Selling less electricity also makes it harder for PNM to cover its fixed costs, and ironically, justifies rate increases. Adjusting the balance between the fixed customer charge and the rate per KWH of consumption could make PNM less dependent on selling electricity to pay for its fixed costs.

NM's current energy conservation and efficiency related mandates deal exclusively with electrical energy consumption, not with electrical energy generation. Generating electricity more efficiently is easier to achieve and more impactful than changing consumers' wasteful habits because efficient generation affects every single utility customer all of the time. NM's energy efficiency mandates should be revised and/or re-interpreted to give utilities credit for improving generation plant efficiencies as well as for meeting consumption reduction targets.

9.6. Adding More Renewables

The environmental costs of fossil fuel powered electrical generation are not fully included in PRC evaluations. Health costs and climate change impacts are not included at all. The true cost/benefit assessment of customer-owned solar PV in NM has not yet been determined, but there's no doubt that it's higher than what PRC regulations support. All of these "oversights" interfere with the PRC Commissioners' ability to properly weigh the cost/benefit tradeoffs involved in PRC decisions about renewables.

New Mexico's Renewable Portfolio Standard has been the major driver for the significant increase in NM's RE generating sources. Federal clean air and "clean power" regulations are also significant factors. Increases in the percentage mandates for RE sources will have to come from the state legislature.

As the cost of renewable sources, especially wind and solar PV continue to decrease, and the advantages of integrating them into the utility model become more apparent, PNM should be "encouraged" to find ways to make money by financing and even installing such systems. Large wind systems, for example, are not candidates for residential or small business ownership. Neither are "utility-scale" solar thermal and solar PV systems.

"Community Solar" projects are not currently allowed in PNM's territory. Community Solar projects could be mandated by legislative action and perhaps even by PRC decisions. It's even

conceivable that a Community Solar system mandate along with the installation and financing of Community Solar in PNM's territory could be integrated into PNM's "monopoly", i.e. PNM would have to allow Community Solar, and PNM would also be given some financial incentive to actually encourage Community Solar.

Finally, if out-of-state banks and investment brokers can make money financing residential rooftop and business-owned solar installations in New Mexico, why shouldn't PNM or PNM Resources be allowed to do something similar by offering clean energy loans & convenient on-bill payment plans.

9.7. Re-Thinking Rate Cases

In return for their state-sanctioned monopolies, PNM & other large utilities have to be subject to PRC regulation. Rate cases are technically, legally and financially VERY complicated. In an "ideal" rate case, PNM would submit its rate case proposals with "full disclosure" & clear accurate cost justifications. The PRC, in turn, would balance the interests of PNM against the interests of PNM ratepayers. Collaboration & well-informed fact-based compromises would be an expected outcome.

Rate cases have evolved into very formal legal proceedings in which the elected PRC Commissioners play the role of judges. The process is extremely adversarial, with utilities like PNM able to use guaranteed ratepayer financing to argue for what is best for PNM, and "intervenors" & lobbyists making their own strong arguments to protect their own specific interests. Depending upon the political winds, the PRC appointed Hearing Examiner, the appointed PRC staff and the NM Attorney General's staff weigh-in on one side or the other. The result of this adversarial approach is that all sides are "motivated" to abandon collaboration, transparency and straightforwardness in favor of what can only be described as intentional efforts to influence, misinform & even mislead the PRC Commissioners. And in spite of so-called "public hearings" the actual influence of "informed" citizen rate-payers on these complicated rate cases is, and probably always will be, modest.

In the 2015 PNM Rate Case, one of the PRC's own intervenors documented that a standard PRC approach to evaluating PNM's cost proposals is to "split the baby", i.e. to simply take PNM's inflated costs and cut them in half. This completely arbitrary "solution" demonstrates that "professional game-playing" has become a full-contact sport in NM's utility regulation proceedings.

What can be done? :

9.7.1. Utilities' rate case related expenses (plus a cool 10% profit) are now fully compensated by ratepayers. Let's greatly reduce or eliminate that subsidy.

9.7.2. It's obvious that the PRC staff is unable to thoroughly review utilities' financial proposals, so making use of impartial outside auditors should be standard practice for the utilities as well as for the PRC.

9.7.3. It's obvious that the PRC staff is unable to thoroughly review utilities' technical proposals, so making use of impartial outside technical "auditors" should be standard practice for the utilities as well as for the PRC.

9.7.4. Honest mistakes happen, especially in such complicated rate cases. But the practice of intentionally submitting inflated costs, and misleading and/or misinforming PRC Commissioners should be subject to public revelation & stiff fines.

9.7.5. The PRC should use utility “benchmarking” to determine how regulated utilities like PNM are addressing major issues compared with the “best practices” of other similar utilities across the country. Such a comparison would quickly reveal that PNM is “behind the power curve” in managing peak demand, adopting smart meters, modernizing the Grid, getting serious about energy efficiency, taking advantage of clean energy sources, addressing the environmental and public health effects of energy generation, and fully “exploiting” NM’s clean energy potential.

9.8. Deregulation

PNM and other large utilities are state-sanctioned monopolies. “Competing” electrical distribution systems (Grids) make no sense, and until relatively recently, competing power plants were questionable at best. But now there are a growing number of options for generation sources, including wind and solar PV. The old monopoly rules are fast becoming barriers to change, and enablers of the status-quo.

Some states have “deregulated” electric utilities. Deregulation encourages competition and allows customers more choices. To date, it’s not obvious that deregulated utilities are better or worse than regulated utilities at supplying reliable and affordable electricity, but they certainly “open” the market up to alternative generation sources. Here in NM, we need to figure out how to increase competition in supplying clean electricity, as well as how to optimize and pay for the grid.