

# From net metering to net billing

Impacts of policy changes  
on rooftop solar consumers



**Authors:**

Rimsha Rehan, Manzoor Ahmed

**Reviewer:**

Muqaddas Ashiq, Muhammad Badar Alam

**Copyright**

Excerpts of this briefing paper can be freely reproduced with due acknowledgement. For readers wishing to cite this document, we suggest the following: Policy Brief – From net metering to net billing by Policy Research Institute for Equitable Development (PRIED), © January 2026

## Table of Contents

<b>1. Introduction</b>	<b>1</b>
<b>2. Proposed regulatory changes</b>	<b>1</b>
2.1 Key regulatory amendments and their impact	1
2.2 Concentration of discretionary power with DISCOs	2
<b>3. Distributional impacts of the proposed shift</b>	<b>3</b>
3.1 Who gains	3
3.2 Who loses	3
3.3 Tariff and system-level implications:	3
<b>4. Comparative tariff analysis: Net metering vs net billing</b>	<b>4</b>
4.1 Battery Impact on net billing Bills	4
4.2 Analysis and results	4
4.2.1 Solar system size effect:	4
4.2.2. Consumption level effect	5
4.2.3 Effect of increasing self-consumption on annual bills	7
4.2.4. TOU exposure (grid stress signal): Sensitivity of bills to peak consumption share	8
4.2.5. Impact of battery energy storage system (BESS) on annual bill under net-billing	8
4.2.6. Magnitude of bill reduction	9
4.2.7 Variation with annual consumption	9
4.2.8. Comparison with lower self-consumption households	10
4.2.9. Policy Implication	10
<b>5. Conclusion</b>	<b>10</b>
<b>Annexure</b>	<b>11</b>

## List of Figures

Figure 1 PV size scaling effect on annual bills (NM vs. NB)	5
Figure 2 Annual bills with varying consumption patterns (NM vs. NB)	8
Figure 3 Annual bills with varying solar system size consumption levels (NM vs. NB)	7
Figure 4 Impact of increased self-consumption on annual bills (NM vs. NB)	7
Figure 5 Sensitivity of bills relative to peak consumption (NM vs. NB)	8
Figure 6 Bill savings with BESS under net billing at 30% self-consumption	9
Figure 7 Bill savings with BESS under net billing at 50% self-consumption	9

## List of Tables

Table 1 Relative increase in annual bills (NM vs. NB)	6
Table 2 Parameters for BESS analysis	8

## 1. Introduction

The changes proposed by the National Electric Power Regulatory Authority NEPRA to shift from 'Net Metering' to 'Net Billing' will cause a fundamental reallocation of costs, risks and benefits that were originally embedded in Pakistan's rooftop solar policy. Under the proposed framework, solar prosumers (grid-connected electricity consumers who have also installed their own solar power) would be compensated for electricity they will export to distribution companies (DISCOs) at rates that are significantly lower than the retail tariff the DISCOs charge while these prosumers will still have to pay full retail tariff for the electricity they import from DISCOs. Devised as a response to the financial pressure being faced by DISCOs, subsidisation of electricity produced by the prosumers regardless of their economic status and the technical challenges posed to the national by the export of solar power, the proposed changes signal a move away from consumer-led distributed energy development towards a centralised and control-oriented regulatory approach. This shift risks entrenching existing inefficiencies in the power sector, particularly at a time when energy regulators globally are transitioning from centralised control towards grid flexibility, dynamic tariffs, peer-to-peer trading and virtual net-metering.

## 2. Proposed regulatory changes

The proposed amendments redefine how electricity exports are valued, how long export contracts remain valid and the extent to which distributed (non-centralised) solar power generation can interact with the grid. Collectively, these changes consolidate DISCOs' control over solar power, transfer risks to solar power consumers and limit the long-term potential of distributed energy resources.

### 2.1. Key regulatory amendments and their impact

**Proposed regulation:** *"net billing arrangement" means an arrangement under which electricity generated by distributed generation facility of prosumer is purchased by the licensee and the licensee raises the bill on the prosumer for his consumption at the applicable tariff, after giving credit for electricity supplied by prosumer to the licensee at the national average energy purchase price".*

Under this formulation, NEPRA is introducing a price differential exceeding 400 percent between imported and exported electricity. In practical terms, a prosumer must export four to five units of electricity to offset the cost of importing a single unit from the grid. This sharp asymmetry lacks transparency and economic justification, effectively requiring distributed generators – who supply clean electricity at the distribution stage without having to use electricity transmission network – to subsidise broader inefficiencies in the power sector.

The proposed changes also implicitly treat rooftop solar as a source of grid instability. The reality is that it is not solar penetration per se that is hurting the grid but the absence of grid modernisation measures such as smart inverters, storage integration and demand-side management. If distributed solar is properly integrated with the grid, it can enhance grid resilience and reduce its peak supply-demand stress.

The new framework being proposed by NEPRA also overlooks the value that distributed solar adds to the system through clean, renewable and cheap electricity generation and, instead, penalises its participation in the system.

**Proposed regulation:** *"The term of the agreement between prosumer and licensee shall be five years with effect from date of commissioning of distributed generation facility".*

Reducing the contract term fundamentally alters the risk profile for prosumers who are making long-term capital investments in solar systems. Limiting contracts to a five-year term also introduces uncertainty regarding pricing, export eligibility and continued grid access after the expiry of the contract. Together, these factors will weaken policy credibility and discourage future adoption of distributed power generation, particularly among middle-income households that rely on predictable payback periods.

**Proposed regulation:** *“The capacity of a proposed distributed generation facility shall not exceed the sanctioned load of the applicant’s premises”.*

Capping system size at a one-to-one ratio with sanctioned load will limit households and businesses to make no changes in their electricity demand profiles. This restriction will undermine future electrification of vehicles, cooking and space and water heating – all key pillars of the economy’s long-term decarbonisation. By discouraging modest over-installation of solar power, the proposed regulations also limit opportunities for community-based energy generation and distribution models, running counter to Pakistan’s stated national objectives of electrification and climate change mitigation.

**Proposed regulation:** *“the licensee shall not entertain any application if the distributed generation capacity connected to a particular distribution transformer has reached 80% of its rated capacity”.*

The 80 percent transformer threshold being proposed by the new regulations is technically weak and administratively problematic. Transformer loads vary by time, day and season. They are also linked to consumer behaviour, particularly under a tariff regime based on the time of use. Applying a static benchmark, therefore, oversimplifies grid dynamics and also risks arbitrary enforcement. Without transparent methodology and publicly disclosed hosting capacity assessments, this provision is likely to function as a bureaucratic barrier to solarisation rather than as a genuine grid protection mechanism.

**Proposed regulation:** *“The prosumer shall not have any right to utilize licensee’s interconnection facilities for the sale of electricity to any other person”.*

This provision extends the centralised control logic of the Competitive Trading Bilateral Contract Market (CTBCM) into the distributed energy space. By reinforcing a single-buyer model, the proposed regulations restrict the emergence of bottom-up energy markets, including peer-to-peer trading, community-based solarisation, virtual power plants and decentralised grid flexibility services. Rather than enabling innovation, it locks distributed generation into a passive, DISCO-dependent system.

## 2.2. Concentration of discretionary power with DISCOs

Taken together, the proposed regulations grant DISCOs significant discretionary authority to limit electricity export, suspend net-billing arrangements, or terminate connections on operational grounds. Given persistent governance and performance challenges within DISCOs, these changes will cause concerns around regulatory balance, transparency and fairness. Notably, these restrictions are being introduced at a time when progress on utility scale renewable deployment and grid upgrades is slow at best and non-existing at worst. Instead of addressing structural shortcomings, however, the regulatory focus is shifting towards containing distributed power solutions that have expanded without government financing and delivered tangible benefits to both consumer and the electricity system.

### 3. Distributional impacts of the proposed shift

As explained in the previous section, the transition from ‘net metering’ to ‘net billing’ redistributes benefits across stakeholders. It also generates short-term relief for general consumers but simultaneously it creates structural risks for energy transition. Below is a short description of the winners and losers.

#### 3.1. Who gains:

1. Distribution companies (DISCOs) stand to benefit the most from the reduced electricity tariff being exported to them by the solar users. They will be able to decrease the amount of money they have to spend on paying to the consumers who export solar electricity to them. They will also be able to reduce subsidy payments to electricity exporters, many of whom have now fallen in the category of lifeline consumers after having decreased their consumption of grid electricity to less than 200 units a month thanks to their own solar-produced electricity. Lower electricity export tariff may disincentivise many urban-based solar power exporters to reduce their export to DISCOs, relieving some pressure on the grid though this benefit could be partially offset if consumers increasingly adopt battery storage systems to bypass the grid altogether.
2. Since solar consumers will bear the fixed grid costs for exporting electricity to DISCOs, this may result in some relief in electricity tariff for non-solar electricity consumers – at least in the short-run.

#### 3.2. Who loses:

The net metered electricity consumers who have installed solar power systems on their rooftops or other parts of their premises will face diminished incentives particularly due to downward revision in the tariff for their electricity export. They will also be negatively impacted by the proposed restriction on the size of the solar system. As of now, anyone can install a solar system that has 1.5 times higher capacity than their sanctioned electricity load but, under the changed framework, they will be able to install a system that only has the capacity to produce electricity equivalent to their sanctioned load. This constraint will limit their ability to plan for future electrification of their cooking, heating and transport.

Lower electricity export tariff will also accelerate a shift towards battery storage adoption and restricting solar power merely for self-consumption, encouraging solar consumers to move ‘behind the meter’ and reduce their interaction with the national grid.

#### 3.3. Tariff and system-level implications:

Since the tariff impacts of the proposed changes are substantial, they will increase the payback period for solar installations sharply, especially for consumers who cannot afford to set up battery storage systems immediately. Consequently, self-consumption is likely to become the dominant strategy for solar consumers as they will prioritise export minimisation over system-wide value creation.

From a system perspective, while ‘net billing’ reduces the implicit subsidy embedded in ‘net metering’, it also increases the likelihood that consumers will rely on the grid mainly just as a backup. This will obviously raise concerns about equity because wealthier consumers who can afford to set up battery-backed storage systems will have a relative advantage over those who can’t have batteries. The former group of consumers will be much less reliant on the expensive grid electricity than the latter which will be left to pay the grid’s fixed cost as well. In other words, the proposed changes in the absence of complementary tariff and market reforms risk decreasing both long-term grid utilisation and cost recovery.

## 4. Comparative tariff analysis: Net metering vs net billing

This analysis evaluates the financial implications of the proposed transition from net metering to net billing for residential rooftop solar prosumers. It considers three rooftop solar system with sizes of 5 kilowatt (kW), 7 kW and 10 kW, each evaluated against four annual electricity consumption levels: 6,000 Kilowatt hour (kWh), 7,000 kWh, 8,000 kWh, and 9,000 kWh. This differentiation allows the analysis to capture both modest and high consumption households and to show realistic matching (and mismatching) between installed system capacity and electricity demand.

To reflect behavioural and temporal consumption differences, the analysis incorporates the following factors:

- **Three self-consumption ratios:** 30 percent, 40 percent, and 50 percent, representing varying levels of daytime electricity usage and load shifting.
- **Three off-peak to peak consumption distributions:** 70:40, 60:40, and 50:50, capturing different demand profiles and exposure to time-of-use tariffs.

For each scenario, annual electricity bills are calculated under:

- **Net metering**, where exported electricity is credited at the applicable retail tariff and offsets imported electricity on a net basis; and
- **Net billing**, where self-consumed electricity reduces grid purchases but exported electricity is credited at a much lower rate than the retail tariffs.

All other parameters (tariffs, consumption levels and system performance assumptions) are held constant across net metering and net billing scenarios to ensure that observed differences in annual bills are attributable solely to the changes being proposed.

For the comparative analysis under the two regimes, instead of only calculating the electricity bills under each case, we investigate trade-offs of each policy under various parameters and analyses. The assessment explores how outcomes vary with the following:

1. Solar system size
2. Consumption level
3. Degree of self-consumption from solar system
4. Exposure to time-of-use tariffs, particularly peak demand share

### 4.1. Battery Impact on net billing Bills

Battery storage is modeled as an additional evaluation dimension to assess its ability to reduce the financial burden under net billing. The impact of batteries is quantified as **reduction in absolute and percentage increase of annual net0billiong bills** relative to a scenario without battery storage. This juxtaposition provides insights into how behind-the-meter battery storage can **partially or fully offset the negative financial impact** of net billing policies.

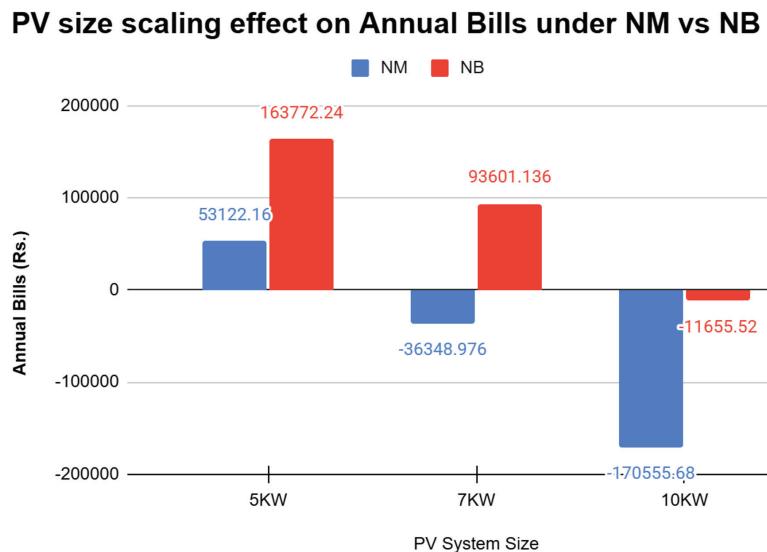
**Note: Battery impact is also considered under net billing only with the combination of 5 kW solar - 8kWh battery energy storage system.**

### 4.2. Analysis and results

#### 4.2.1. Solar system size effect:

Under this scenario, we examine how scaling up rooftop solar system capacity affects consumer electricity outcomes under net metering and net billing regimes. The assessment is based on a

representative household with an annual electricity consumption of 8,000 kWh, of which 40 percent is self-produced while the remaining follows a time-of-use (TOU) structure with a 60:40 off-peak to peak split.



**Figure 1:** PV size scaling effect on annual bills (NM vs. NB)

As illustrated in figure 1, our analysis showed that, under net metering, the volume of exported electricity increases with increase in solar system size -- as we see a negative end consumer bill. Under net billing a similar trend is visible – that is, the annual electricity bills decline with increase in solar system size – but the reduction is substantially lower than under net metering. This generated another inequity: annual bills under net billing regime decline as solar system's capacity rises to 7 kW and beyond, suggesting that consumers with larger solar systems will derive greater financial benefits and may, in some cases, earn net credits (that is, negative annual bills).

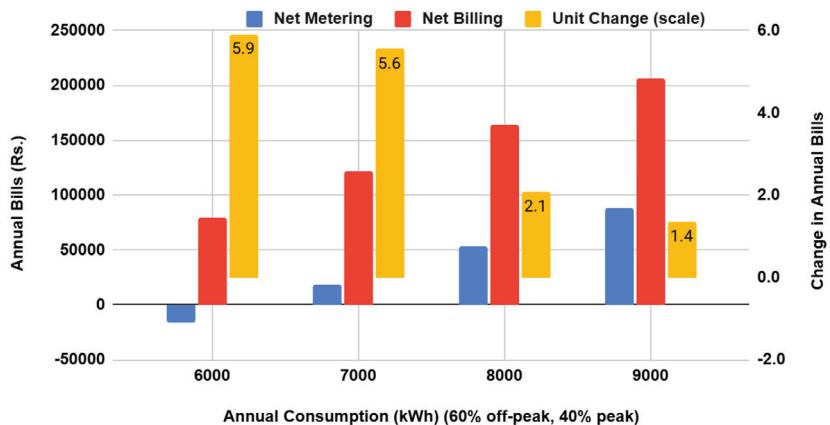
#### 4.2.2. Consumption level effect

This analysis explores how changes in household electricity consumption influence the financial impact of shifting from net metering to net billing for rooftop solar prosumers. The assessment considers a fixed solar system size of 5 kW, with 40 percent self-consumption of solar power generation and a time-of-use (TOU) demand profile with a 60:40 split between off-peak and peak periods. Annual electricity consumption has been changed incrementally from 6,000 kWh to 9,000 kWh to identify which consumer segments are most exposed to higher costs under the net billing regime.

Figure 2 shows which consumer class is affected first as electricity consumption increases. It compares annual electricity bills under net metering and net billing for a rooftop solar prosumer as its annual consumption rises from 6,000 kWh to 9,000 kWh. The yellow bars represent the relative increase in annual bills under net billing, shown as a multiple of the corresponding net metering bill. As household electricity consumption increases, the relative penalty for shifting from net metering to net billing declines sharply. This is shown in the table below:

Negative values in the figure indicate net credits

### Annual Bills under Net-Metering vs Net-Billing with varying Annual Consumption



**Figure 2:** Annual bills with varying consumption patterns (NM vs. NB)

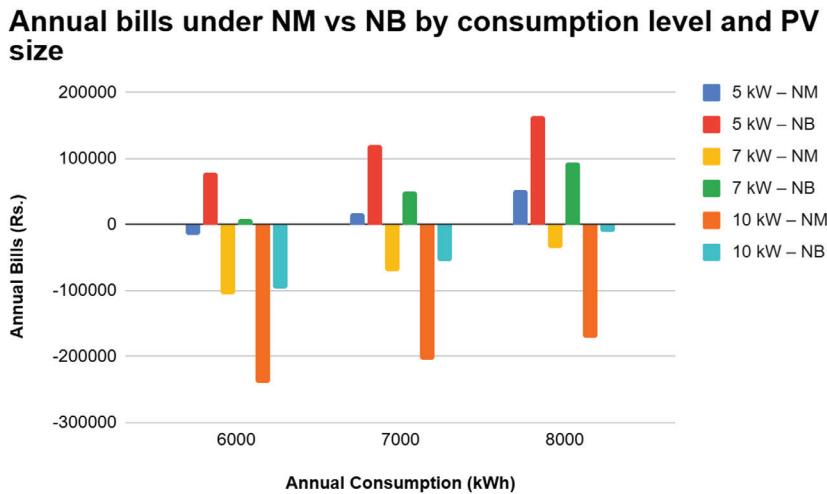
**Table 1 – Relative increase in annual bills (NM vs. NB)**

Annual Consumption	Increase
6,000 kWh	Net billing bills are ~5.9 times higher than net metering bills
7000 kWh	Net billing bills are ~5.6 times higher than net metering bills
8000 kWh	Net billing bills are ~2.1 times higher than net metering bills
9000 kWh	Net billing bills are ~1.4 times higher than net metering bills

Because net billing penalises electricity exports, not self-consumption, higher consumption households will be better off – since they export less electricity – as compared to lower consumption households – because they export more electricity – even when absolute net billing bills continue to rise with rise in consumption. The higher-consumption households are better able to absorb solar generation internally and are less exposed to the lower export buy-back rate. Net billing regime, therefore, is regressive with respect to consumption, imposing the highest relative burden on lower-use solar prosumers.

The figure 3 ahead – with negative values indicating net credits -- shows the impact of transition from net metering to net billing on households with solar system sizes of 5 kW, 7 kW, and 10 kW – across different levels of annual electricity consumption. Under net metering, larger solar systems (7 kW-10 kW) generate substantial credits, although these credits decrease as household consumption rises. In contrast, under net billing, annual bills increase sharply, particularly for smaller 5 kW systems though larger systems also lose most of the financial advantage they previously had under net metering. Even though the difference between net billing and net billing is highly pronounced for 10 kW systems with low electricity consumption, it becomes smaller as consumption increases.

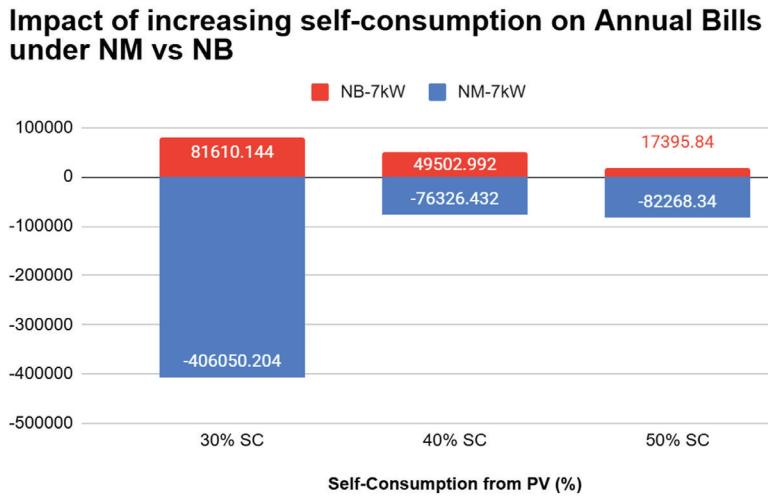
Overall, the results demonstrate that the transition from net metering to net billing significantly increases annual electricity costs, particularly for households with larger rooftop solar systems but with lower electricity consumption.



**Figure 3:** Annual bills with varying solar system size consumption levels (NM vs. NB)

#### 4.2.3 Effect of increasing self-consumption on annual bills

This assessment is based on a household with a fixed solar system of 5 kW size and annual electricity consumption of 7,000 kWh, with demand distributed across time-of-use (TOU) periods in a 60:40 off-peak to peak split. Self-consumption of this household is shown to vary from 30 percent to 50 percent to isolate its impact on bill outcomes while keeping the system size and overall demand constant.

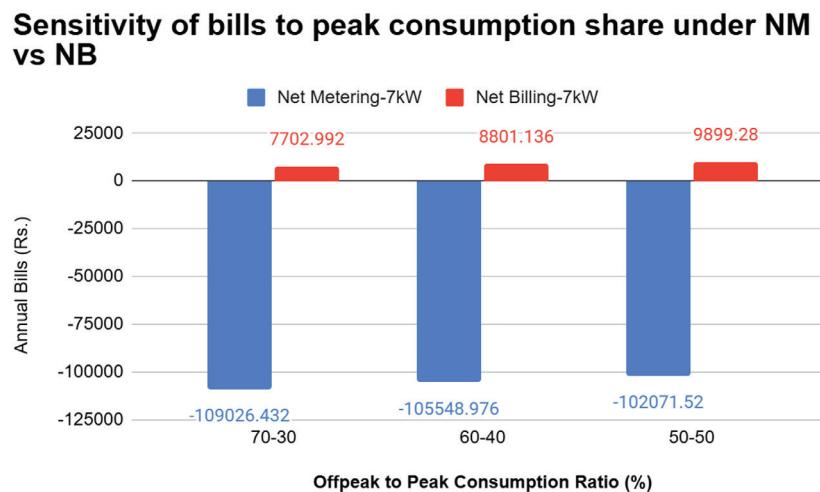


**Figure 4:** Impact of increased self-consumption on annual bills (NM vs. NB)

As reflected in the above figure, since households lose excess credits by increasing self-consumption under net metering, they therefore tend to export excess electricity. Net billing, on the other hand, strongly encourages self-consumption.

#### 4.2.4. TOU exposure (grid stress signal): Sensitivity of bills to peak consumption share

The assessment is based on a household with a 7-kW solar system, annual electricity consumption of 6,000 kWh, and a fixed self-consumption rate of 40 percent. To isolate the effect of time-of-use (TOU) exposure, the off-peak to peak consumption split is shown to vary across three scenarios -- 70:30, 60:40, and 50:50 -- while holding all other parameters constant.



**Figure 5:** Sensitivity of bills relative to peak consumption (NM vs. NB)

The above figure shows the impact of time of use consumption on annual electricity bills under net metering and net billing. Under the former, the annual bills remain almost flat across different peak consumption levels, indicating the absence of a peak pricing signal. In contrast, under the latter, annual bills increase as peak consumption rises – from 30 percent to 50 percent, resulting in an increase of approximately 28.5 percent in annual bills. This highlights a strong financial penalty for higher peak-period consumption under the proposed net billing framework.

#### 4.2.5. Impact of battery energy storage system (BESS) on annual bill under net-billing

Building on the analysis of time-of-use (TOU) exposure and peak pricing signals, this section examines the role of battery storage in mitigating electricity costs for rooftop solar households under net billing regime. The analysis evaluates how battery adoption can alter annual bill outcomes by enabling households to store surplus solar power and strategically displace high-cost peak-period electricity imports from grid.

**Table 2 – Parameters for BESS analysis**

System Size	5 kW
Battery Size	8 kWh
Self-Consumption	30% and 50%
ToU (off-peak to peak consumption ratio)	70/30, 60/40, 50/50
Annual Consumption	70/30, 60/40, 50/50

### Sensitivity of bills to peak consumption share under NM vs NB

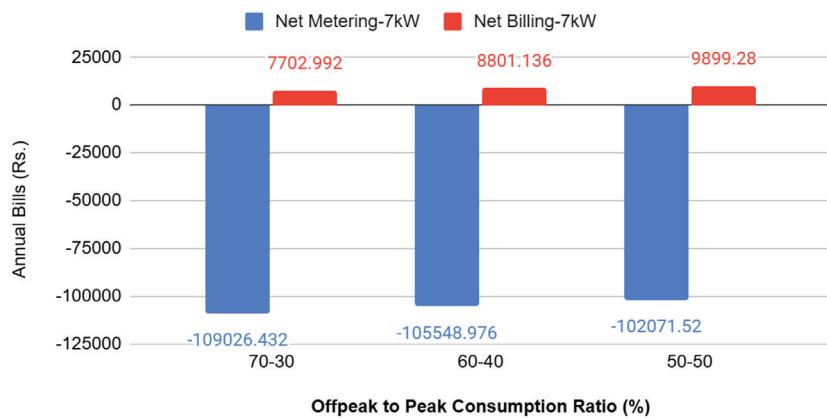


Figure 6: Bill savings with BESS under net billing at 30% self-consumption

#### 4.2.6. Magnitude of bill reduction

As shown in figure above, the introduction of an 8 kWh battery storage reduces net billing costs by approximately 40–92 percent across annual electricity consumption levels of 6,000–9,000 kWh, depending on the household's time-of-use (TOU) consumption profile. Households with greater peak demand shares, reflecting the large price differential between peak import tariff (Rs 46/kWh) and export credits (Rs 11/kWh), can make the highest savings through battery storage system. Households with 50:50 peak-off-peak consumption experience the largest percentage reduction in their bills as batteries enable direct substitution of peak imports with stored solar energy. Households with 70:30 consumption, which are already more off-peak oriented, realise smaller but still meaningful savings as fewer peak imports are available for displacement.

#### 4.2.7 Variation with annual consumption

At 6,000 kWh, batteries can offset a large share of imports not offset by exports, yielding the highest relative bill reduction. At 9,000 kWh, absolute savings remain significant but percentage reductions fall as higher overall demand necessitates continued reliance on grid imports after battery discharge. This pattern reflects a saturation effect: once stored solar energy is fully utilised, additional consumption must be met from the grid, limiting further cost reductions. Battery effectiveness, therefore, declines gradually as total electricity demand rises – as is shown in the figure below:

### Bill Savings with PV-Battery under Net-billing

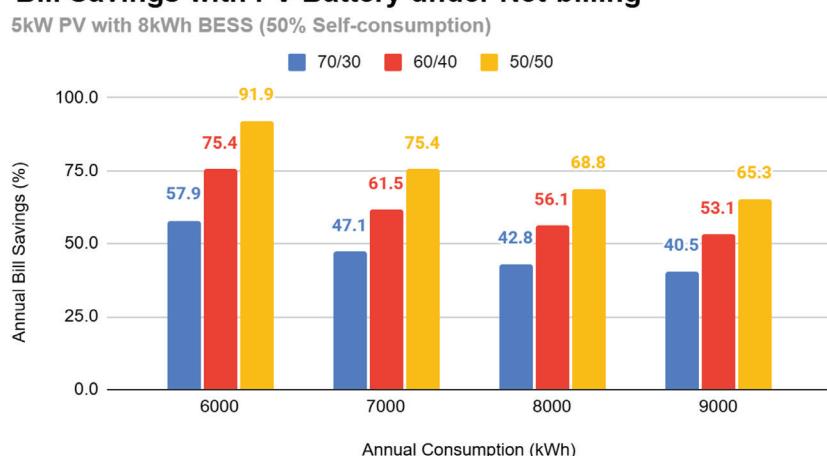


Figure 7: Bill savings with BESS under net billing at 50% self-consumption

#### 4.2.8. Comparison with lower self-consumption households

Relative to 30 percent and 40 percent self-consumption cases, households at 50 percent self-consumption exhibit:

- Lower baseline net billing costs without batteries due to reduced exports at low buy-back rates;
- Lower incremental gains from battery adoption as a smaller volume of surplus solar is available for time-shifting.

Batteries, nevertheless, remain economically valuable when they are used for targeting the most expensive kilowatt-hours, rather than when they are used for maximising self-consumption alone. At higher self-consumption levels, battery storage functions less as a tool for increasing solar utilisation and more as a price-arbitrage mechanism, selectively eliminating exposure to peak tariffs under net billing.

#### 4.2.9. Policy Implication

Even for households that already utilise solar power efficiently, net billing substantially increases their exposure to high peak-hour tariffs. While battery storage can partially mitigate this impact, its effectiveness declines for households that have already maximised self-consumption and have less surplus electricity for storage. At the same time, these households will have to incur the associated capital costs of batteries. This underscores the need for complementary measures, such as tariff reforms or targeted storage incentives, should net billing be implemented on a wide scale.

### 5. Conclusion

Our analysis shows that transition from net metering to net billing introduces a strong financial signal to maximize self-consumption. At the same time, the proposed framework imposes a strong financial penalty for higher peak-period consumption. Our analysis also shows that larger solar system sizes relative to household consumption can reduce the exposure of net billing prosumers to high electricity costs. While absolute net billing bills will continue to rise with rise in electricity consumption, higher-consumption households will be comparatively better off than lower-consumption households, as net billing penalizes exports rather than self-consumption. The adoption of battery storage, however, can partially offset additional costs, with reductions in net billing bills ranging from 40 percent to 92 percent, depending on household time-of-use (TOU) consumption patterns. Savings through batteries will be highest for households with larger shares of peak demand, as batteries allow direct substitution of costly peak imports with stored solar power.

From a broader policy perspective, the proposed framework demonstrates a lack of innovation. Rather than upgrading net metering into a smarter, market-integrated instrument, the proposed changes rely on tariff suppression, export restrictions and administrative controls, treating distributed power resources as a problem to be contained rather than as assets to be optimised, penalising prosumers for responding rationally to high tariffs and unreliable supply. A more credible pathway would integrate rooftop solar into grid planning, modernise regulations, protect consumer rights and align incentives with long-term decarbonisation and electrification goals, rather than controlling one of the few success stories in Pakistan's power sector.

## Annexure

**Table A-1**

30% Self Consumption			
System Size	Annual Consumption (kWh)	Offpeak Peak Consumption	Annual Bill
			Net Metering (Rs)      Net Billing (Rs)
5 kW	6000	70/30	-17574.66      100092.96
		60/40	-10418.88      102352.68
		50/50	-3263.1      104612.4
	7000	70/30	15125.34      141892.96
		60/40	24181.12      144752.68
		50/50	33236.9      147612.4
	8000	70/30	47825.34      183692.96
		60/40	58781.12      187152.68
		50/50	69736.9      190612.4
	9000	70/30	80525.34      225492.96
		60/40	93381.12      229552.68
		50/50	106236.9      233612.4

**Table A-2**

40 % Self Consumption			
System Size	Annual Consumption (kWh)	Offpeak Peak Consumption	Annual Bill
			Net Metering (Rs)      Net Billing (Rs)
5 kW	6000	70/30	-21818.88      77159.28
		60/40	-16077.84      78972.24
		50/50	-10336.8      80785.2
	7000	70/30	10881.12      118959.28
		60/40	18522.16      121372.24
		50/50	26163.2      123785.2
	8000	70/30	43581.12      160759.28
		60/40	53122.16      163772.24
		50/50	62663.2      166785.2
	9000	70/30	76281.12      202559.28
		60/40	87722.16      206172.24
		50/50	99163.2      209785.2

**Table A-3**

50% Self Consumption				
System Size	Annual Consumption (kWh)	Off-peak Peak Consumption	Annual Bill	
			Net Metering (Rs)	Net Billing (Rs)
5 kW	6000	70/30	-26063.1	54225.6
		60/40	-21736.8	20147.88
		50/50	-17410.5	56958
	7000	70/30	6636.9	127149.88
		60/40	12863.2	32267.32
		50/50	19089.5	131975.8
	8000	70/30	39336.9	137825.6
		60/40	47463.2	49747.88
		50/50	55589.5	142958
9000	70/30	72036.9	179625.6	
		60/40	82063.2	64547.88
		50/50	92089.5	185958

**Table B-1**

30% Self Consumption				
System Size	Annual Consumption (kWh)	Offpeak Peak Consumption	Net Metering (Rs)	
			Net Billing (Rs)	Net Billing (Rs)
7 kW	6000	70/30	-103084.524	39810.144
		60/40	-97626.432	41533.752
		50/50	-92168.34	43257.36
	7000	70/30	-406050.204	81610.144
		60/40	-63026.432	83933.752
		50/50	-55668.34	86257.36
	8000	70/30	-37684.524	123410.144
		60/40	-28426.432	126333.752
		50/50	-19168.34	129257.36
9000	70/30	70/30	-4984.524	165210.144
		60/40	6173.568	168733.752
		50/50	17331.66	172257.36

**Table B-2**

40 % Self Consumption				
System Size	Annual Consumption (kWh)	Offpeak Peak Consumption	Net Metering (Rs)	Net Billing (Rs)
7 kW	6000	70/30	-109026.432	7702.992
		60/40	-105548.976	8801.136
		50/50	-102071.52	9899.28
	7000	70/30	-76326.432	49502.992
		60/40	-70948.976	51201.136
		50/50	-65571.52	52899.28
	8000	70/30	-43626.432	91302.992
		60/40	-36348.976	93601.136
		50/50	-29071.52	95899.28
	9000	70/30	-10926.432	133102.992
		60/40	-1748.976	136001.136
		50/50	7428.48	138899.28

**Table B-3**

50% Self Consumption				
System Size	Annual Consumption (kWh)	Offpeak Peak Consumption	Net Metering (Rs)	Net Billing (Rs)
7 kW	6000	70/30	-114968.34	-24404.16
		60/40	-113471.52	-23931.48
		50/50	-111974.7	-23458.8
	7000	70/30	-82268.34	17395.84
		60/40	-78871.52	18468.52
		50/50	-111974.7	19541.2
	8000	70/30	-49568.34	59195.84
		60/40	-44271.52	60868.52
		50/50	-38974.7	62541.2
	9000	70/30	-16868.34	100995.84
		60/40	-9671.52	103268.52
		50/50	-2474.7	105541.2

**Table C-1**

30% Self Consumption				
System Size	Annual Consumption (kWh)	Offpeak Peak Consumption	Net Metering (Rs)	Net Billing (Rs)
10 kW	6000	70/30	-231349.32	-50614.08
		60/40	-228437.76	-49694.64
		50/50	-225526.2	-48775.2
	7000	70/30	-198649.32	-8814.08
		60/40	-193837.76	-7294.64
		50/50	-189026.2	-5775.2
	8000	70/30	-165949.32	32985.92
		60/40	-159237.76	35105.36
		50/50	-152526.2	37224.8
	9000	70/30	-133249.32	74785.92
		60/40	-124637.76	77505.36
		50/50	-116026.2	80224.8

**Table C-2**

40 % Self Consumption				
System Size	Annual Consumption (kWh)	Offpeak Peak Consumption	Net Metering (Rs)	Net Billing (Rs)
10 kW	6000	60/40	-239755.68	-96455.52
		50/50	-239673.6	-96429.6
		70/30	-207137.76	-54681.44
	7000	60/40	-205155.68	-54055.52
		50/50	-203173.6	-53429.6
		70/30	-174437.76	-12881.44
	8000	60/40	-170555.68	-11655.52
		50/50	-166673.6	-10429.6
		70/30	-141737.76	28918.56
	9000	60/40	-135955.68	30744.48
		50/50	-130173.6	32570.4

**Table C-3**

50% Self Consumption				
System Size	Annual Consumption (kWh)	Offpeak Peak Consumption	Net Metring (Rs)	Net Billing (Rs)
10 kW	6000	70/30	-248326.2	-142348.8
		60/40	-251073.6	-143216.4
		50/50	-253821	-144084
	7000	70/30	-215626.2	-100548.8
		60/40	-216473.6	-100816.4
		50/50	-217321	-101084
	8000	70/30	-182926.2	-58748.8
		60/40	-181873.6	-58416.4
		50/50	-180821	-58084
	9000	70/30	-150226.2	-16948.8
		60/40	-147273.6	-16016.4
		50/50	-144321	-15084

**Table D-1**

Annual Consumption (kWh)	TOU Split	Annual NB Bill – No Battery (Rs)	Annual NB Bill – With Battery (Rs)	Savings (%)
6000	70/30	54225.6	22803	57.9
6000	60/40	55591.8	13695	75.4
6000	50/50	56958	4587	91.9
7000	70/30	96025.6	50803	47.1
7000	60/40	97991.8	37695	61.5
7000	50/50	99958	24587	75.4
8000	70/30	137825.6	78803	42.8
8000	60/40	140391.8	61695	56.1
8000	50/50	142958	44587	68.8
9000	70/30	179625.6	106803	40.5
9000	60/40	182791.8	85695	53.1
9000	50/50	185958	64587	65.3

