



Policy View point: NO.80:2026

Evaluating the Electricity Subsidy Verification Mechanism



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Key Takeaways

- 01** Among HIES households identified as likely protected-category consumers, **only about 1 in 3 have all the characteristics used here as proxies for independent online registration; about 65 percent lack at least one of them.**
- 02** Around **45 percent of protected-proxy households lack a smartphone or tablet** to scan the QR code; among those with a device, about 36 percent do not meet the education proxy used in this analysis for English-language understanding and digital literacy, a compulsion for filling the online registration form.
- 03** The selected registration prerequisites indicate greater potential barriers for poorer households: the share of households in the bottom 40 percent of the per-capita income distribution falls from 47.5 percent among protected-proxy households to 30.3 percent among those meeting the selected proxies for independent registration. Barriers are also highest in Punjab and rural areas (about 69 percent).
- 04** The one-time registration has **no evident mechanism for updating records when occupants change**, a risk particularly higher for the 17.7 percent grid-connected households occupied by non-owners.
- 05** Consumers are exposed to a **cliff-edge penalty**: a single month above 200 units locks a consumer out of the protected category for six billing cycles, regardless of consumption in the following months.
- 06** The government has not yet adopted a widespread **communication strategy** on the upcoming change in subsidy provision for protected consumers.
- 07** A shift toward **household welfare-based targeting, supported by integration of electricity-user records with existing household data and periodic updating**, would reduce both inclusion and exclusion errors.

Households' Sample Flow

01	30,123 (40.12 million represented households) All HIES 2024-25 households
02	25,231 (35.40 million represented households) Main-grid electricity is main lighting source
03	23,797 (33.57 million represented households) Electricity expenditure reported
04	13,588 (17.96 million represented households) Expenditure ≤ PKR 3,285.1 (protected proxy)
05	7,647 (9.92 million represented households) Smartphone or tablet in household
06	4,886 (6.35 million represented households) At least one member with matriculation or above

Introduction

For low-income households in Pakistan, electricity bills constitute a disproportionately high share of income making them acutely vulnerable to tariff hikes needed to address fiscal and circular debt pressures. Since subsidy relief is currently tied to consumption rather than income, a considerable share of subsidy spending may reach non-poor households, leaving less fiscal space to cushion the energy burden on those who are genuinely price-vulnerable. To counter this, the Government of Pakistan plans to substitute its untargeted electricity subsidy with a targeted subsidy to provide relief primarily to low-income households.

In July 2022, the tariff schedule for non-Time-of-Use residential electricity consumers was revised through S.R.O. 1166(I)/2022 dated 25 July 2022¹. The revision raised the lifeline consumer limit to 100 units per month and created a new category of protected consumers. This category covers residential consumers whose consumption has not exceeded 200 units in any of the preceding six months.

Resultantly, these consumers were charged a subsidized tariff as long as the monthly usage remains up to 200 units of electricity. While this extended relief with regards to electricity expenditure to a much larger proportion of the residential consumers, it also increased the burden on an already fiscally constrained government, as the subsidy to residential consumers has increased from PKR 199 billion in FY22 to PKR 423 billion in FY26 (Ministry of Energy, 2026)². These costs add to pressure on a power sector that also carries a large stock of circular debt, which fell sharply in FY25 as a result of bulk repayment but rose again in FY26 (Figure 1; fiscal years run July–June) representing ongoing high accumulation of circular debt.

The two are related but distinct. Circular debt is the stock of unpaid obligations across the power supply chain and has several drivers: distribution losses, under-recovery of bills, delayed release of budgeted subsidies, gaps between notified tariffs and the cost of supply, and capacity payments. In FY26, for example, the Power Division attributed PKR 262 billion of additions to DISCO inefficiencies, PKR 64 billion to under-recovery and PKR 194 billion to non-payment by K-Electric³. Untargeted residential subsidies are therefore one fiscal pressure among several and not the primary cause of circular debt. The concern this viewpoint raises is whether they are well targeted.

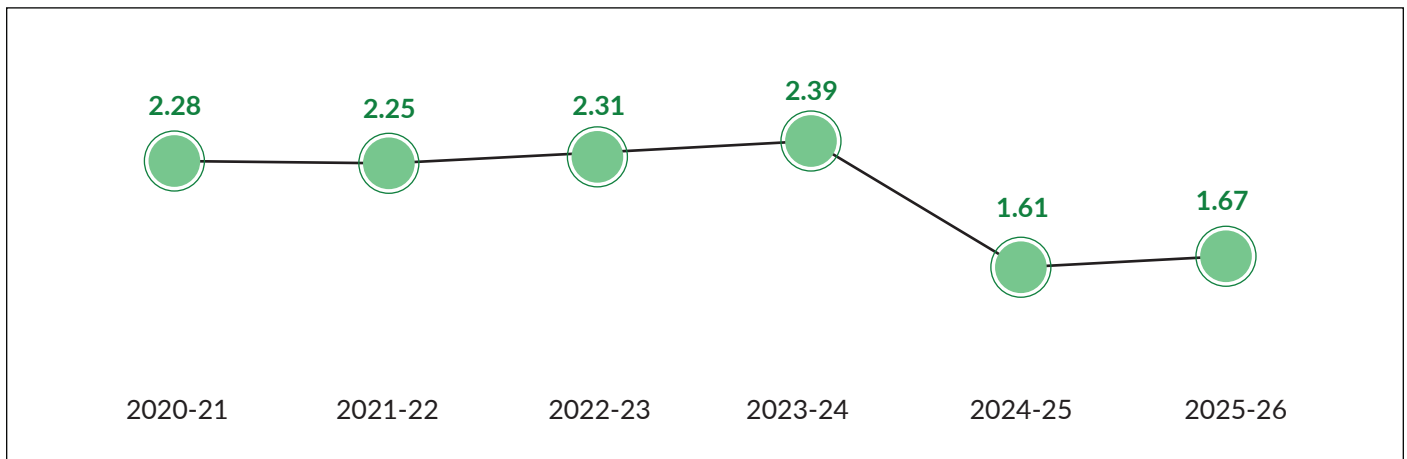
1. [https://nepra.org.pk/publications/State%20of%20Industry%20Reports/Detail%20of%20Generation/Notification/20.%2025-07-2022/S.R.O%201166%20\(I\)-2022%20dated%2025-07-2022.pdf](https://nepra.org.pk/publications/State%20of%20Industry%20Reports/Detail%20of%20Generation/Notification/20.%2025-07-2022/S.R.O%201166%20(I)-2022%20dated%2025-07-2022.pdf)

2. <https://www.brecorder.com/news/40423395>

3. Power Division data for FY2025-26, reported in The News (18 August 2026):

<https://www.thenews.pk/print/1432664-power-sector-circular-debt-rises-by-rs61bn-to-rs1-675tr-in-fy26>

Figure 1: Power Sector Circular Debt (PKR Trillion)



Source: NEPRA State of Industry Report 2025 (FY21–FY25) & Power Division data reported in The News, 18 August 2026 (FY26)⁴⁵

Moreover, multilateral donor agencies have also identified tariff-based subsidies as a major source of inefficiencies and fiscal imbalance within the power sector, pushing Pakistan to eliminate these subsidies. World Bank (2024)⁶ emphasizes that the subsidy mode adopted by the government is not fulfilling its intended objective as consumption-based tariff subsidies though create huge fiscal costs, but the maximum benefit is not attained by those most deserving. The Staff Level Agreement (SLA) between Pakistan and the International Monetary Fund (IMF) following the third review of 37-month Extended Fund Facility (EFF) and second review of 28-month Resilience and Sustainability Facility (RSF) for Pakistan included achieving energy sector viability as a policy priority for the upcoming months.

The SLA has emphasized timely tariff adjustments to ensure cost recovery while stressing upon the need to avoid price subsidies on energy tariffs as they have high fiscal costs with distortionary impacts (IMF, 2026)⁷. Consequently, the Government of Pakistan has initiated a cross-subsidy verification process to determine eligibility of households for receiving the subsidized electricity tariff. The verification process which requires households to register themselves on an online portal was announced not via a government notification or any major awareness campaign but through information printed on the consumer electricity bills (Figure 2). It is imperative to understand that the registration process is based on three related but distinct arrangements:

- 01** Protected-consumer status is a tariff category: A residential non-ToU consumer whose consumption has not exceeded 200 units in any of the preceding six months is billed at protected slab rates.
- 02** The lower tariffs paid by protected and lifeline consumers are financed through two channels: the federal tariff differential subsidy and cross-subsidies from other consumer categories.
- 03** As a reform measure under the IMF Resilience and Sustainability Facility (RSF), the Government of Pakistan has committed to replace the existing structure with a targeted framework for low-income consumers by January 2027, linked to Benazir Income Support Programme (BISP) National Socio-Economic Registry.⁸

4. <https://nepra.org.pk/publications/State%20of%20Industry%20Reports/State%20of%20Industry%20Report%202025.pdf>

5. Power Division data (end-June 2026 stock of PKR 1,675 billion), reported in The News (18 August 2026): <https://www.thenews.pk/print/1432664-power-sector-circular-debt-rises-by-rs61bn-to-rs1-675tr-in-fy26>

6. <https://thedocs.worldbank.org/en/doc/7008031a15959f10bde28b6c56767d59-0310062024/original/Pakistan-Development-Update-The-Dynamics-of-Power-Sector-Distribution-Reforms-Oct-24-FINAL.pdf>

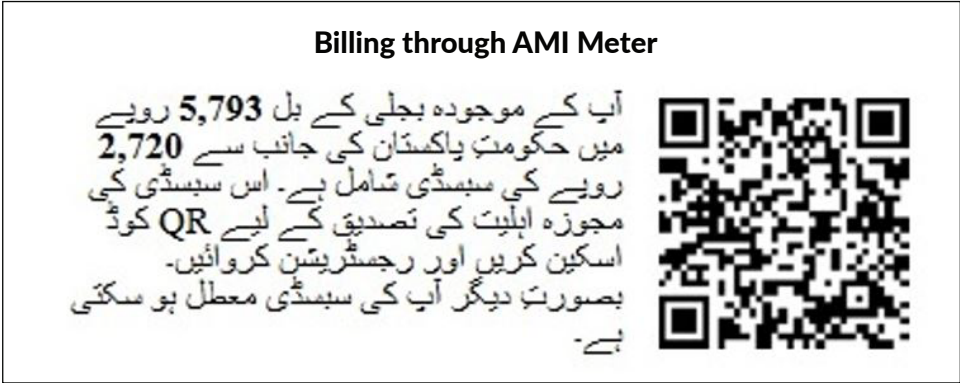
7. <https://www.imf.org/en/news/articles/2026/03/27/pr-26095-pakistan-imf-reaches-agreement-3rd-rev-37mo-ext-arrang-eff-2nd-rev-28mo-arrang-rsf>

8. IMF (2026). Pakistan: Third Review Under the Extended Fund Facility and Second Review Under the Resilience and Sustainability Facility – Staff Report. IMF Country Report No. 26/101, para. 28. <https://www.imf.org/-/media/files/publications/cr/2026/english/1pakea2026001.pdf>

The QR-code based portal access and registration mechanism analyzed in this viewpoint links the second and third arrangements. From May 2026 onwards, bills of consumers receiving subsidized tariffs carry a QR code. This viewpoint therefore evaluates an operational data-verification requirement that precedes a planned targeted subsidy, not the final eligibility rules. The question is whether the design of this initiative itself may exclude the households the reform intends to protect (Figure 2).

At the time of this revision (1 October 2026), the official documents available for this viewpoint does not confirm DISCO-level coverage, including the position of K-Electric, a registration deadline, or a formal subsidy-suspension rule. The bill shown in Figure 2 indicates that the subsidy may be suspended, but does not establish a uniform national rule. The analysis should therefore be read within this administrative limitation.

Figure 2: Subsidy Verification QR Code



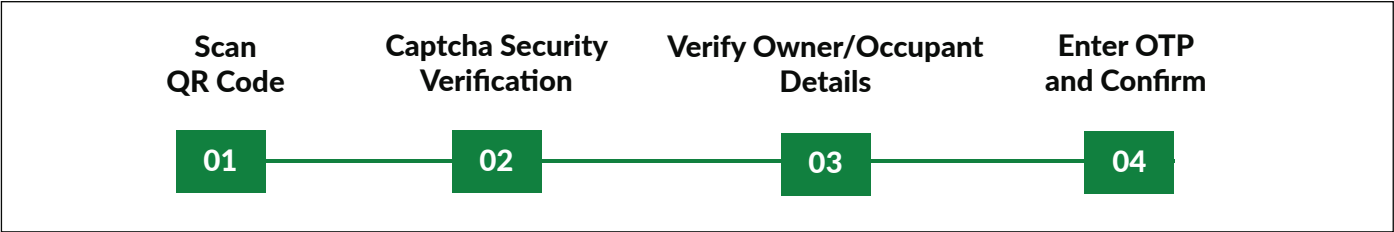
Source: Screenshot of Subsidy Recipient's Electricity Bill

While the initiative by the government to identify deserving households for tariff subsidy is a much-needed step, this policy viewpoint examines whether the verification process itself creates registration barriers for households in lower socio-economic strata. The policy concern is two-sided: potential exclusion error when vulnerable households face difficulty completing verification, and inclusion error when higher-income households qualify because low electricity consumption is used as a proxy for need. International examples are then used to identify alternative policy options.

Current Verification Mechanism

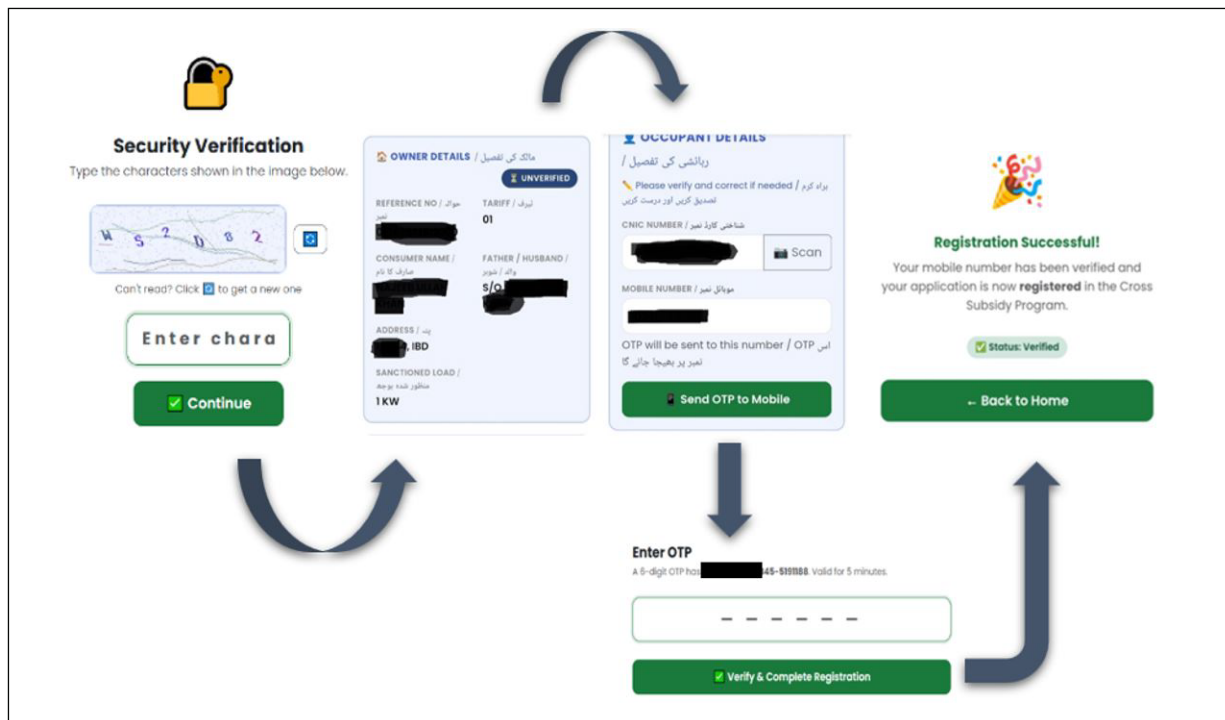
The data verification mechanism introduced by the Government of Pakistan for subsidy eligibility among residential consumers is a four-step process as explained below.

Figure 3: Targeted Electricity Subsidy Verification Mechanism



The owner details are automatically captured from the DISCO data.
Source: Power Information Technology Company

Figure 4: Subsidy Verification Portal



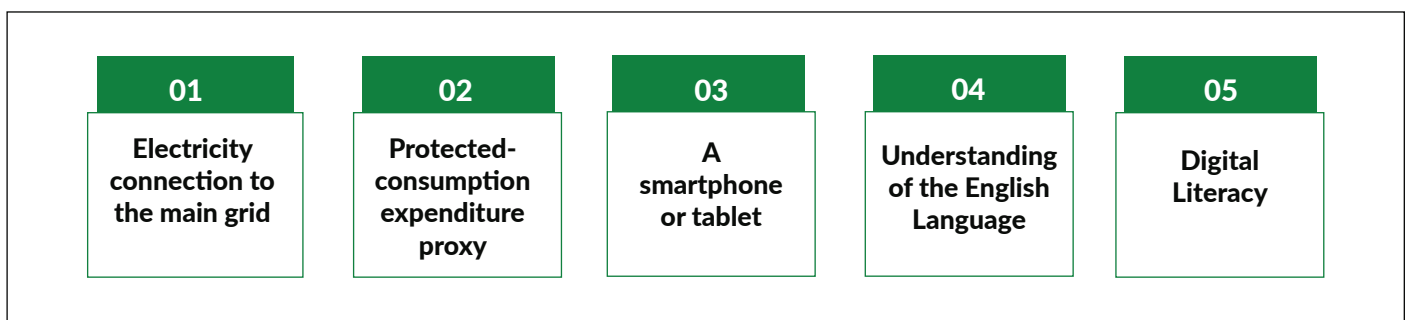
Source: Cross Subsidy Program Registration Portal

Once the OTP is entered, then the registration confirmation message is displayed after which the data will be verified to determine subsidy eligibility of the household.

Verification Design and the Risk of Excluding Eligible Households

Based on the aforementioned mechanism, a household is likely to need the following five characteristics (Figure 5) to complete the registration process independently:

Figure 5: Household Prerequisites for Subsidy



Note: HIES identifies electricity expenditure, device ownership and education proxies; it does not directly observe protected tariff status, English-language proficiency, digital literacy or successful registration.

Source: Based on Authors' Analysis

To evaluate how many households meet these five conditions, the analysis uses the latest Household Integrated Economic Survey (HIES 2024-25) data. All percentages are weighted using HIES household sampling weights and account for the survey's stratified, clustered design (158 strata and 2,153 primary sampling units). They are therefore estimates for all households in Pakistan's four provinces and Islamabad, and 95 percent confidence intervals are reported in each table. Household counts are unweighted sample sizes.

Two variables have missing values. First, 1,434 main-grid households (5.2 percent) did not report electricity expenditure. These households are also less likely to meet the registration prerequisites. Fewer own a smartphone or tablet (50.2 vs 66.9 percent) or have a member with matriculation (38.8 vs 60.2 percent).

Second, 8.0 percent of households did not report income. These households are excluded from the income-quintile tables only. The share is similar among protected-proxy households (8.2 percent) and the final group (6.3 percent). However, missing income is concentrated in Khyber Pakhtunkhwa, which accounts for 38 percent of households without income data but only 13 percent of those reporting it. The quintile tables should be read with this in mind.

Of the 30,123 households, 27,752 reported income and are classified into quintiles (Table 1). Income quintiles are based on per-capita household income and are weighted. Each quintile contains one-fifth of households nationally.

Table 1: Income Quintiles of HIES Sample Households

Per-Capita Income Quintile	No. of Households	Weighted %	95% CI
1	6,279	20.00	19.36–20.64
2	5,858	20.16	19.58–20.73
3	5,477	19.87	19.28–20.46
4	5,185	20.00	19.41–20.59
5	4,953	19.97	19.15–20.80

Source: Authors' calculations based on HIES 2024-25

Of the 30,123 sample households, 25,231 (88.3 percent of households nationally) use main-grid electricity as their main source of lighting; the remaining 4,892 are therefore excluded from the analysis (Table 2).

Table 2: Main Grid Electricity Connections

Category	No. of Households	Weighted %	95% CI
Metered / Connected to Main Grid	25,231	88.25	87.48–89.02
Non-Metered / Not Connected to Main Grid	4,892	11.75	10.98–12.52

Source: Authors' calculations based on HIES 2024-25

Of these 25,231 main-grid households, 23,797 report electricity expenditure and are classified into protected-proxy and non-protected categories. Using the following equation, the electricity expenditure of consuming 200 units is calculated to be **PKR 3285.1**.⁹

Electricity Expenditure = Fixed Charge + PTV Fee + Electricity Charges (0 to 100 units) + Electricity Charges (101 to 200 units) + Electricity Duty + Financial Cost Surcharge + General Sales Tax

As the HIES 2024-25 data was collected from September 2024 to June 2025, the notified electricity charges for the same period are used for this calculation. **Resultantly, 13,588 of these 23,797 households (53.5 percent of main-grid households reporting electricity expenditure) report electricity expenditure consistent with the protected-category consumption proxy** (Table 3). This classification is a proxy, not a replication of the administrative rule. Protected status depends on six months of DISCO billing history, whereas HIES records a household's reported electricity expenditure for the survey reference period. Reported expenditure may also include arrears, late-payment charges, adjustments, or taxes that differ across households, and bills vary by season.

A non-protected household consuming under 200 units per month for less than six months is billed at higher tariff compared to the protected category rates, and may therefore appear above the proxy. Reported amounts are also approximate: 71 percent of households report a bill that is a round multiple of PKR 500, and 6.4 percent report exactly PKR 3,000. Households near the threshold may therefore be misclassified in either direction.

9. Based on tariffs notified for the HIES fieldwork period (September 2024–June 2025): PKR 11.69 per unit for 1–100 units and PKR 14.16 per unit for 101–200 units (energy charge PKR 2,585), fixed charge PKR 75, PTV fee PKR 35, electricity duty at 1.5 percent and GST at 18 percent of the energy charge, and a financial cost surcharge of PKR 0.43 per unit.

Table 3: Electricity Consumer Category (main-grid households reporting a bill)

Category	No. of Households	Weighted %	95% CI
Above protectedconsumption proxy	10,209	46.49	45.36-47.62
Protected proxy	13,588	53.51	52.38-54.64

Note: Excludes 1,434 main-grid households that reported no electricity expenditure.

Source: Authors' calculations based on HIES 2024-25

To assess how much this matters, Table 4 repeats the analysis with cutoffs 10 and 20 percent below and above PKR 3,285.1. The protected-proxy share is sensitive to the cutoff, ranging from 44.6 to 58.2 percent of main-grid households reporting electricity expenditure. Much of the jump between the 90 and 100 percent cutoffs reflects households reporting exactly PKR 3,000. The main finding, however, is stable: at every cutoff, between 63.5 and 67.3 percent of protected-proxy households face at least one registration barrier.

Table 4: Sensitivity of Results to the Protected-Consumption Cutoff

Cutoff (% of PKR 3,285.1)	Cutoff (PKR)	Protected-proxy households (n)	Protected-proxy share (%)	Face ≥1 barrier (% of protected-proxy)	95% CI
80%	2,628	11,504	44.6	67.3	66.2-68.4
90%	2,957	11,846	46.2	66.8	65.7-67.9
100% (baseline)	3,285	13,588	53.5	64.6	63.6-65.7
110%	3,614	14,518	57.6	63.6	62.5-64.6
120%	3,942	14,662	58.2	63.5	62.4-64.5

Note: Protected-proxy shares use main-grid households reporting electricity expenditure as the denominator.

Source: Authors' calculations based on HIES 2024-25

Subsequently, 10,209 households that report electricity expenditure above the estimated protected category threshold are dropped and the remaining analysis is based on only the protected proxy category households in the sample.

Among the 13,588 households identified through the protected-consumption proxy, 12,539 have an income-quintile classification in Table 5; 1,049 are not represented in the quintile tabulation. Among classified households, the share in the first three income quintiles is higher than in the overall classified HIES sample.

Table 5: Income Quintiles of Protected Consumer Category Households

Per-Capita Income Quintile	No. of Households	Weighted %	95% CI
1	2,987	22.70	21.74-23.67
2	3,121	24.78	23.92-25.64
3	2,773	22.43	21.61-23.25
4	2,240	18.59	17.80-19.38
5	1,418	11.50	10.78-12.21

Source: Authors' calculations based on HIES 2024-25

About 30 percent of protected-proxy households with a quintile classification fall in the fourth and fifth per-capita household income quintiles (Table 5). This does not by itself establish leakage, but lays the basis for further inquiry. What the data does show is that monthly consumption is a weak signal of welfare, and that household size is associated with the mismatch. Protected-proxy households in the top two quintiles average 4.6 members, whereas the 28.7 percent of bottom-40-percent main-grid households whose bills exceed the proxy average 8.0 members. Consumption-based eligibility therefore risks both inclusion errors (small, better-off households) and exclusion errors (large, poorer households that cross 200 units because of household size, weather, inefficient appliances, or shared meters).

Besides, accessing the registration portal requires scanning the QR code on the electricity bill; therefore, protected-category households need access to an electronic device through which the QR code can be scanned. **It is found that 44.78 percent of the 13,588 households do not own a smartphone or tablet and therefore face a direct barrier to independently scanning the QR code (Table 6).**

Table 6: Smartphone or Tablet Ownership as a Proxy for QR Code Access

Category	No. of Households	Weighted %	95% CI
No smartphone or tablet	5,941	44.78	43.66-45.89
Owns smartphone or tablet	7,647	55.22	54.11-56.34

Source: Authors' calculations based on HIES 2024-25

This implies that 5,941 protected-proxy households may be unable to register independently through the prescribed QR-based process because no one in the household owns a smartphone or tablet, unless they borrow a device or receive help. The remaining 7,647 households are connected to the main grid, fall under the protected-category proxy, and have access to a device, but this still does not ensure that they can independently complete the registration form.

As the entire form is in English language (while requiring security verification captcha and entering the One-Time Password received via SMS to complete registration), to register themselves, it is essential that households fulfill the last two characteristics i.e., understanding of the English language coupled with a decent level of digital literacy (Figure 5).

HIES does not directly measure English-language proficiency or digital literacy. The analysis therefore uses a simple proxy: a household is treated as having greater capacity for independent registration if at least one member has completed matriculation or an equivalent qualification. This is an indicative proxy, not a direct measure of digital literacy or the ability to complete the form. Matriculation is identified from the highest class completed by members who have left school and, for current students, from the class they are attending (class 11 or above).

Based on this criterion, out of the remaining 7,647 households, 4,886 have at least one person who has attained matriculation or an equivalent qualification (Table 7). **Under this proxy, a further 2,761 households may face difficulty completing the process independently.**

Table 7: Household Education

Category	No. of Households	Weighted %	95% CI
None with Matriculation or Above	2,761	35.99	34.63-37.36
At least One Person with Matriculation or Above	4,886	64.01	62.64-65.37

Source: Authors' calculations based on HIES 2024-25

Because education is only an indirect proxy for digital capability, Appendix Table A1 compares it with indicators from the HIES ICT module. Adding household internet access or recent internet use to device ownership causes minimal changes to the results, because almost all protected-proxy households with a smartphone or tablet also have a member who used the internet in the past three months. However, device ownership or recent internet use does not establish reliable connectivity at the time of registration.

Adding these connectivity indicators therefore changes the measured barrier little; the ability to complete an English-language form along with digital security checks remains a potential barrier, which the education proxy is intended to capture. At the other extreme, if any household member who used a smartphone in the past three months is treated as able to register, whether or not the household owns one, the share facing a barrier falls to 30.3 percent. About one-third (32.6 percent) of protected-proxy households without their own device have a member who used a smartphone recently, suggesting that borrowed phones could partly offset the device barrier. However, this must not be confused with a continued or easy access to a smartphone for the household and hence not used as a reason to ignore the challenges rising from the current registration mechanism.

In sum, 4,886 sample households or about 35 percent of protected-proxy households (95% CI: 34.3–36.4), have all the characteristics used in this analysis as proxies for independent online registration: a main-grid connection, electricity expenditure within the protected-consumption proxy, a smartphone or tablet, and at least one member with matriculation.

The remaining 64.6 percent (95% CI: 63.6–65.7) may face at least one barrier. This figure should be read as an indicative proxy-based estimate of registration barriers, not as a prediction of who will fail to register or a statistically established upper bound on actual exclusion. It does not capture help from relatives or neighbours, borrowed phones, or assisted registration; the analysis assesses the prerequisites for independent registration. Conversely, owning a smartphone and having an educated member do not guarantee registration either. Under the most lenient definition evaluated (any household member used a smartphone in the past three months), the share facing a barrier falls to 30.3 percent, still a substantial proportion of households potentially facing registration barriers under this alternative definition (Appendix Table A1).

Early administrative figures indicate incomplete registration, although they do not establish the reasons for non-registration. In the FESCO service area, about 2.3 million protected consumers had registered by late July 2026, roughly two and a half months after registration began, while about 1.8 million had not.¹⁰

Barriers also vary considerably across the country (Appendix Table A2). They are most common in Punjab (69.5 percent) and in rural areas (69.4 percent), and least common in Khyber Pakhtunkhwa (56.3 percent), Balochistan (56.5 percent) and urban areas (55.4 percent). Though, within each geographical category the proportion of households facing these barriers remains high.

Examining the income status of the final 4,886 households further illustrate how the process may change the socio-economic composition of households meeting the selected proxies for independent registration.

Of the final remaining households, 293 did not report income; therefore, the final quintile tabulation consists of 4,593 households. Among these 4,593 households, 53.9 percent belong to the first three quintiles, while 46.1 percent belong to the top two quintiles (Table 8).

Table 8: Income Quintiles of Final Remaining Households

Per-capita Income Quintile	No. of Households	Weighted %	95% CI
1	571	11.48	10.48–12.49
2	881	18.83	17.57–20.08
3	1,075	23.60	22.28–24.92
4	1,165	26.53	25.07–27.98
5	901	19.57	18.18–20.95

Source: Authors' calculations based on HIES 2024-25

Comparing the distribution of households across income quintiles among protected consumer category households (Table 5) and among final remaining households (Table 8), we see that the share of households in the first three income quintiles falls by 16.0 percentage points (from 69.9 to 53.9 percent), driven by the drop in first and second quintiles.

Appendix Table A3 traces how the household socio-economic profile changes at each filter. Between the protected-proxy stage and the final group, the share of households in the bottom 40 percent of the per-capita household income distribution falls from 47.5 to 30.3 percent, and the share in the poorest quintile halves from 22.7 to 11.5 percent. The final group is also more urban (42.8 vs 33.9 percent) and less often female-headed (9.1 vs 11.1 percent). The selected registration prerequisites therefore indicate greater potential barriers for poorer, rural, and female-headed households, which runs counter to the aim of protecting vulnerable consumers.

Overall, 36.5 percent of main-grid households in the top two per-capita income quintiles have reported electricity expenditure within the protected-consumption proxy, reinforcing the case that consumption alone is an inadequate basis for subsidy eligibility.

10.FESCO statement reported by 24 News (24 July 2026): <https://www.24newshd.tv/24-Jul-2026/fesco-intensifies-qr-registration-campaign-across-region>

Moreover, 17.7 percent of main-grid households live in rented, subsidized-rent or rent-free dwellings (Table 9), and hence more probable to undergo occupancy change. While the current registration portal allows entering information of occupants to identify homes occupied by non-owners, however with higher chances of future occupancy change and no evident mechanism of data update in future, the risk of eligibility decision for future occupants based on today's data is higher.

Table 9: Occupant's Ownership Status

Occupant's Ownership Status	No. of Households	Weighted %	95% CI
Not Owned/Rented	4,462	17.71	16.91–18.51
Owned	20,769	82.29	81.49–83.09

Source: Authors' calculations based on HIES 2024-25

Learning from the International Experience

Subsidies for low electricity consumption are common across many low- and middle-income countries to reduce the energy burden on low-income households. Table 10 presents a cross-country comparison of different electricity-subsidy targeting models.

Table 10: Electricity Subsidy Mechanisms across Countries

Country	Tiers / Thresholds for Subsidy	Basis of Targeting
 Pakistan	- Lifeline (≤ 100 kWh/month) - Protected (≤ 200 kWh/month) - Non-Protected (above 200 or fails other criteria)	- Consumption must not exceed 200 units in any of the preceding six months - No registered AC - Sanctioned load < 5 kW - No income data - No registry
 Kenya	Lifeline ≤ 50 kWh/month (IMF, 2013)¹	- Consumption only - No registry - No asset check
 Indonesia	450VA and 900VA connections, restricted to poorest 40%	- Connection class - DTKS registry cross-check (World Bank, 2024)²
 South Africa	20A prepaid = auto-indigent 60A/postpaid needs separate verification (Standard Bank, 2025)³	Municipal indigent register (income-based)
 Egypt	- Graduated welfare ranking - No fixed kWh band	- PMT score - National ID-linked Unified Registry - High usage (> 650 kWh) disqualifies from other subsidies (World Bank, 2019)⁴
 Brazil	$\leq \frac{1}{2}$ min wage/person + ≤ 80 kWh = 100% free $\frac{1}{2}$ to 1 min wage/person + ≤ 120 kWh = CDE charge exempt	- Declared income in CadÚnico - Verified periodically
 Philippines	Lifeline QMEs get 100% discount up to 50 kWh	4Ps cash-transfer membership OR certified below PSA poverty line
 India	- No kWh band - Full price charged - Subsidy refunded	- Below-poverty-line status - Paid via Aadhaar-linked bank transfer
 Turkey	Subsidy covers 87% of bill for consumers using ≤ 8 kWh/day	- Consumption only - High-volume users cut off entirely from 2025

In contrast to the registry-based approaches shown in Table 10, Pakistan's protected category is inferred primarily from recent billing history rather than directly from household income or welfare data. This reduces administrative requirements but also weakens targeting accuracy because low consumption is not necessarily equivalent to low household welfare.

Consequently, a higher-income household can keep consumption under 200 units and receive the same subsidy as a low-income household. Countries such as South Africa adjust support at subsequent registry updates as socio-economic status changes. In Pakistan, however, one month with more than 200 consumed units locks a consumer out of the protected category for six billing cycles regardless of consumption in the

11.<https://www.elibrary.imf.org/display/book/9781475558111/ch004.xml>

12.<https://documents1.worldbank.org/curated/en/099748505212431959/pdf/IDU1e31e5e531f16114baa1b62c1b3201c9c2e68.pdf>

13.<https://www.standardbank.co.za/southafrica/personal/learn/understanding-how-free-basic-electricity-works>

14.<https://documents1.worldbank.org/curated/en/601241557238235284/pdf/Egypt-Energy-Social-Safety-Nets-Sector-Reforms-Technical-Assistance-Project.pdf>

following months, creating a cliff-edge penalty. **This cliff effect is a separate design concern from the digital registration barrier.** The international cases suggest that consumption information is more useful when combined with socio-economic information and a mechanism for periodic updating.

Way Forward

1. Immediate: Adopt an effective and coherent communication strategy

Currently, the government has not adopted a widespread communication approach regarding the upcoming change in subsidy provision for the protected consumer category. The registration requirement has primarily been conveyed through a message on electricity bills. An initiative-taking communication strategy should therefore use the electricity bill together with Urdu and relevant regional-language messages, SMS, television/radio, social media, and DISCO or local facilitation points, with clear information on the registration process and applicable timelines. The IMF has likewise stressed that an effective nationwide communications campaign is critical to prepare electricity consumers for the transition.¹⁵

2. Immediate: Provide assisted and alternative registration channels

The HIES sample analysis indicates that many protected-category households may face difficulty completing independent online registration because of device access, English-language requirements, or limited digital capability. Digital registration should therefore be retained, but assisted registration should also be available for consumers who cannot complete the process independently.

For this purpose, NADRA e-Sahulat centres and provincial one-window facilitation centres, such as the e-Khidmat Markaz (Punjab) and Citizen Facilitation Centers (KP), can assist consumers using the same integrated verification system rather than a parallel manual process.

Combined with an effective communication strategy, assisted registration would reduce access barriers. A time-bound grievance and correction mechanism should also be available for registration failures, incorrect meter/CNIC mapping, disputed eligibility, and changes in occupancy.

3. Short term: Enable data updating when occupancy changes

Currently, the registration portal has been designed to collect one-time data for future subsidy eligibility. Eligibility is subject to change based on change in occupancy status and change in socio-economic status of the household. The mechanism should allow periodic updates to data, especially in cases of change in occupancy.

4. Medium term: Transition from consumption-based to household welfare-based targeting

Electricity consumption should not be the sole proxy for household need. Subsidy eligibility should progressively incorporate household welfare information, including available income, asset, household-composition, and other socio-economic indicators, to reduce both inclusion and exclusion errors.

5. Medium term: Integrate electricity-user data with existing household databases and update periodically

Rather than building a separate stand-alone registry, the government should progressively integrate electricity meter/reference information with CNIC/occupancy information and available socio-economic data through existing administrative systems. Consumption data can remain part of the targeting mechanism, but it should be combined with household welfare information and periodic updating.

Such an integrated mechanism would improve targeting, reduce inclusion errors, accommodate changes in income or occupancy status, and limit the risk that a vulnerable household loses support solely because of a temporary increase in electricity consumption.

15. IMF (2026). Pakistan: Third Review Under the Extended Fund Facility and Second Review Under the Resilience and Sustainability Facility – Staff Report. IMF Country Report No. 26/101, para. 28.

Table A1: Registration Barriers under Alternative Definitions of Digital Capacity (protected-proxy households)

Definition of capacity to register	Households meeting definition (n)	Face ≥ 1 barrier (%)	95% CI
A. Smartphone or tablet in household	7,647	44.8	43.7–45.9
B. A + household internet connection	7,637	44.8	43.7–45.9
C. A + a member used the internet in the last 3 months	7,638	44.8	43.7–45.9
D. A member used a smartphone in the last 3 months (own device not required)	9,671	30.3	29.2–31.3
E. A + member with matriculation (baseline)	4,886	64.6	63.6–65.7
F. A + internet user + member with matriculation (strict)	4,885	64.7	63.6–65.7

Source: Authors' calculations based on HIES 2024-25

Note: Base is 13,588 protected-proxy households. Definitions B–D use the HIES ICT module and housing section. Among protected-proxy households without their own device, 32.6 percent have a member who used a smartphone in the last 3 months.

Table A2: Registration Barriers by Province and Area

Area	Protected-proxy share (%)	No smartphone/tablet (% of protected-proxy)	Face ≥ 1 barrier (% of protected-proxy)	n (protected-proxy)
Pakistan	53.5 (52.4–54.6)	44.8 (43.7–45.9)	64.6 (63.6–65.7)	13,588
Khyber Pakhtunkhwa	66.5 (63.8–69.1)	33.6 (31.2–36.0)	56.3 (53.6–59.0)	2,627
Punjab (incl. Islamabad)	49.8 (48.4–51.3)	51.0 (49.5–52.5)	69.5 (68.1–70.9)	6,546
Sindh	51.0 (48.6–53.5)	39.8 (37.3–42.3)	59.6 (57.0–62.1)	2,928
Balochistan	79.2 (75.6–82.7)	31.1 (27.5–34.8)	56.5 (52.6–60.4)	1,487
Rural	65.1 (63.7–66.5)	49.1 (47.7–50.4)	69.4 (68.1–70.7)	9,190
Urban	39.7 (38.0–41.5)	36.4 (34.4–38.5)	55.4 (53.3–57.5)	4,398

Note: Protected-proxy shares use main-grid households reporting electricity expenditure as the denominator.

Source: Authors' calculations based on HIES 2024-25
Note: Weighted percentages with 95% confidence intervals in brackets.

Table A3: Profile of Households at Each Filtering Stage

Characteristic	All households	Main-grid	Protected proxy	+ Smartphone/ tablet	+ Matriculation (final)
Urban (%)	40.7	44.6	33.9	39.1	42.8
Khyber Pakhtunkhwa (%)	14.8	14.5	16.6	20.0	20.6
Punjab incl. Islamabad (%)	55.7	61.6	58.5	51.9	50.5
Sindh (%)	24.3	19.8	18.7	20.4	21.4
Balochistan (%)	5.2	4.1	6.1	7.7	7.6
Female-headed (%)	10.3	10.5	11.1	10.2	9.1
Tenant or nonowner (%)	17.8	17.7	16.5	16.5	15.1
Bottom 40% of percapita income (%)	40.2	36.6	47.5	36.9	30.3
Poorest per-capita income quintile (%)	20.0	17.2	22.7	15.1	11.5
Member with matriculation (%)	55.5	59.1	47.3	64.0	100.0
Member used internet, last 3 months (%)	72.8	75.9	66.6	99.9	100.0
Mean household size	6.0	5.9	5.7	6.0	6.1
Mean age of household head	47.0	47.4	45.7	45.7	46.8
Households (n)	30,123	25,231	13,588	7,647	4,886

Source: Authors' calculations based on HIES 2024-25

Note: Weighted estimates. Income rows exclude households that did not report income; income quintiles are national, based on household income per person.

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