

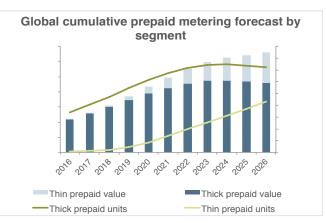
# northeast group, IIc

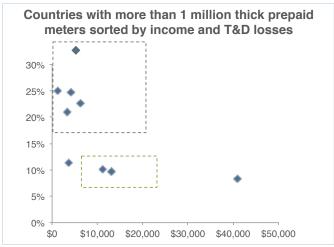
Global Prepaid Metering: Market Forecast (2016 – 2026)

#### Global Prepaid Metering: Market Forecast (2016-2026)

Prepaid electricity metering offers a diverse range of benefits for both utilities and customers, with unique advantages in all regions of the world. These meters are now getting renewed attention as utilities seek to reduce T&D loss rates and levels of bad debt. Prepaid metering growth will be particularly strong in emerging market countries where collection rates are often low, but until recently prepaid meters were considered by some utilities to be prohibitively expensive.

Recent years of economic growth, as well as years of successful prepaid metering case studies in countries such as Indonesia and South Africa, have improved the case for prepaid metering in emerging market countries. Additionally, customers have generally approved of prepaid metering, appreciating the improved control over their budgets and the elimination of estimated billing. Emerging market countries will initially focus on non-communicating prepaid meters, but will increasingly deploy AMI meters with prepaid functionality. Developed countries





will also follow this trend, with most countries expected to enable prepaid billing as part of larger AMI rollouts. As a result, prepaid metering will see growth in all regions of the world, adding a net 126 million prepaid meters over the next ten years.

#### Key questions answered in this study:

- How large will both the non-communicating ("thick") and communicating ("thin") prepaid electricity meter markets be by 2026?
- What are the key indicators for leading prepaid markets and which countries are poised for the largest growth opportunities?
- When will countries begin to switch from "thick" to "thin" prepaid metering?
- Who are the leading vendors and which ones are well placed to compete for this growing market?

# Table of Contents

i. Executive summary	1
ii. Methodology	4
1. Introduction to prepaid metering	6
2. Prepaid metering drivers	12
3. Global prepaid metering forecast	20
4. Africa prepaid metering summary	23
5. East Asia prepaid metering summary	31
6. Eurasia prepaid metering summary	34
7. Europe prepaid metering summary	37
8. Latin America prepaid metering summary	40
9. MENA prepaid metering summary	43
10. North America prepaid metering summary	46
11. Oceania prepaid metering summary	49
12. South Asia prepaid metering summary	52
13. Southeast Asia prepaid metering summary	57
14. Vendors	60
15. Appendix	69

### List of Figures, Boxes, and Tables

Current state of global prepaid electricity metering				
Largest prepaid metering growth markets				
Global cumulative prepaid metering forecast by segment				
Table 1.1: Metering comparison	7			
Figure 1.1: Bad debt reduction at cooperative utility Tri-State EMC	8			
Figure 1.2: Customer satisfaction with prepaid metering in Oklahoma	8			
Table 1.2: Comparing thick and thin prepaid meters	10			
Table 2.1: Main benefits and disadvantages of prepaid metering	12			
Figure 2.1: Average collection rates at global utilities	13			
Figure 2.2: Electricity losses across 9 utilities in Nigeria	13			
Figure 2.3: T&D losses by country	14			
Figure 2.4: Countries with more than 1 million thick prepaid meters sorted by	15			
income and T&D losses				

# List of Figures, Boxes, and Tables (cont.)

Figure 2.5: Comparison of income level and prepaid metering in US states	16				
Table 2.2: Additional countries with T&D losses above 20% and GDP/capita					
below \$10,000					
Table 2.3: Examples of deregulated electricity markets	18				
Figure 2.6: % of mobile phone users using prepaid	19				
Figure 3.1: Prepaid meter penetration rate	20				
Figure 3.2: Global cumulative prepaid metering forecast by segment	21				
Table 3.1: Global cumulative prepaid metering forecast data by segment	21				
Figure 3.3: Global cumulative prepaid metering forecast by region	22				
Table 3.2: Global cumulative prepaid metering forecast data by region	22				
Table 4.1: Prepaid metering drivers and barriers in Africa	23				
Box 4.1: CAPMI scheme in Nigeria	24				
Table 4.2: Metering plans at Nigerian utilities	25				
Figure 4.1: Sub-Saharan Africa cumulative prepaid metering forecast	30				
Table 4.3: Sub-Saharan Africa cumulative prepaid metering forecast	30				
Table 5.1: Prepaid metering drivers and barriers in East Asia	31				
Figure 5.1: East Asia cumulative prepaid metering forecast	33				
Table 5.2: East Asia cumulative prepaid metering forecast	33				
Table 6.1: Prepaid metering drivers and barriers in Eurasia	34				
Figure 6.1: Eurasia cumulative prepaid metering forecast	36				
Table 6.2: Eurasia cumulative prepaid metering forecast	36				
Table 7.1: Prepaid metering drivers and barriers in Europe	37				
Figure 7.1: Europe cumulative prepaid metering forecast	39				
Table 7.2: Europe cumulative prepaid metering forecast	39				
Table 8.1: Prepaid metering drivers and barriers in Latin America	40				
Figure 8.1: Latin America cumulative prepaid metering forecast	42				
Table 8.2: Latin America cumulative prepaid metering forecast	42				
Table 9.1: Prepaid metering drivers and barriers in MENA	43				
Figure 9.1: MENA cumulative prepaid metering forecast	45				
Table 9.2: MENA cumulative prepaid metering forecast	45				
Table 10.1: Prepaid metering drivers and barriers in North America	46				
Figure 10.1: North America cumulative prepaid metering forecast	48				
Table 10.2: North America cumulative prepaid metering forecast	48				

# List of Figures, Boxes, and Tables (cont.)

Table 11.1: Prepaid metering drivers and barriers in Oceania				
Figure 11.1: Oceania cumulative prepaid metering forecast	51			
Table 11.2: Oceania cumulative prepaid metering forecast	51			
Table 12.1: Prepaid metering drivers and barriers in South Asia	52			
Table 12.2: Prepaid meter deployments in Bangladesh	54			
Figure 12.1: South Asia cumulative prepaid metering forecast	56			
Table 12.3: South Asia cumulative prepaid metering forecast	56			
Table 13.1: Prepaid metering drivers and barriers in Southeast Asia	57			
Figure 13.1: Southeast Asia cumulative prepaid metering forecast	59			
Table 13.2: Southeast Asia cumulative prepaid metering forecast	59			
Table 14.1: Leading prepaid metering vendors	60			
Table 14.2: Vendors that are members of the STS prepaid standard	67			
Table 14.3: Vendors that are licensees (but not members) of the STS	68			
prepaid standard				

### Order Form – Global Prepaid Metering: Market Forecast (2016-2026)

Pricing								
Single user – \$2,995   Enterprise license – \$4,300								
Clients purchasing a single user license are limited to one user for this report. The enterprise license allows all employees within a single organization to view the report. Any forwarding or sharing of the report to others who have not paid for it is strictly forbidden.								
Email orders: Fill out and scan the sheet below. Please email orders to ben.gardner@northeast-group.com								
<b>Telephone:</b> We can be reached at <b>+1.202.538.0848</b> . Please have all of the information below ready to expedite your order.  ☐ SINGLE USER ☐ ENTERPRISE LICENSE								
Customer information	1		SINGLE O.		RPRISE LICENSE			
NAME		POSITION		СО	COMPANY			
ADDRESS								
CITY	STATE		POSTAL CODE	COUNTRY				
TELEPHONE		EMAIL						
Credit card information Card type:								
		VISA	MASTERCARD [	AMERICAN EXPRESS	DISCOVER			
CARD NUMBER CV CODE	EXPIRATION DATE							
			0.00.0					
CARDHOLDER'S NAME			SIGNATURE		DATE			
BILLING ADDRESS								
CITY	STATE		POSTAL CODE	COUNTRY				

By purchasing this report I agree to abide by the following terms and conditions: 1. Single-user license - use of this report is restricted to one individual. 2. Enterprise license - use of this report is restricted to individuals within a single enterprise or organization. I agree not to forward or share this report to others who have not paid for its use.