

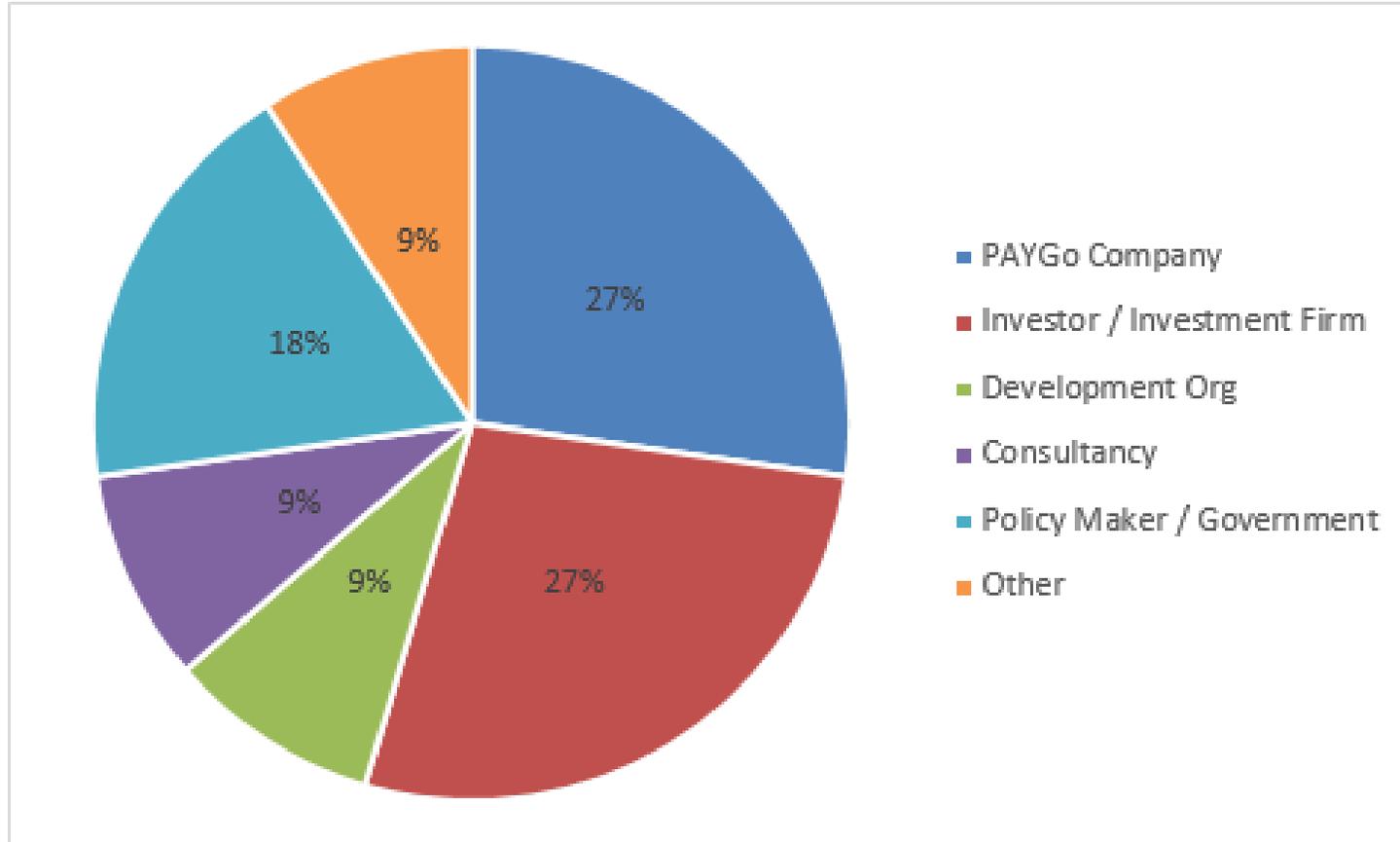
KPI Working Group Survey Results

PAYGO PERFORM

March 20, 2019



General Information on Survey Participants



Total Survey Participants: 22

Overall Goals of the KPIs: What information should the KPIs convey?

Please try to list out the distinct aspects.

- Respondents reported that KPIs should broadly convey information about overall financial performance, operational KPIs and descriptive KPIs
- **Examples of specific information include:**
 - **Informational / descriptive KPIs-** provide context and help understand the position of a company and their product
 - **Financial Performance KPIs-** which break down one sub-component of overall performance
 - **Operational KPIs-** expected to contribute to financial performance in the long run

“An accurate representation of the portfolio of assets; potential returns/profitability, risk metrics, mix of assets, special terms” – PAYGo company

“KPIs should be able to measure performance and path to profitability” – Investor

“Will this company be alive 3 years from now. Given x Euro how many Euro will they create” – Other

Overall Goals of the KPIs: What should the KPIs be used for? By whom?

- Respondents reported that KPIs should be used by:
 - **PAYGo companies** - To understand and to identify strengths and weaknesses in their own performance, understand their markets and customers and to standardize performance data shared with investors for comprehensive DD
 - **Investors & Lenders**- to understand the performance of the companies they fund; to have a unified view of performance across the sector
 - **Governments & NGOs** – to understand the PAYGo industry and provide policy support

“As these KPIs are commercially sensitive, they should primarily be shared with (potential) investors under NDA basis to help secure debt or equity investments.” - PAYGo company

“By PAYGo Operators and their stakeholders to understand true / discounted value of assets and affect of operational / product changes over time in order to drive good management decisions and investment decisions” – PAYGo company

“Data could be used to aggregate the health of these companies overall within the sector and ultimately drive exits in the future – which will drive later stage investors to the market” – Investor

“Measure performance of single providers; track and compare change that happens in the provider performance; compare globally various and diverse providers; identify a common metrics for the industry” – Rating Agency

Overall Goals of the KPIs: What limitations and/or considerations should we be mindful of?

- Respondents highlighted the need to use not one, but several metrics that were simple to calculate and useful across various business models, and the importance of cautious interpretation of KPIs. They also reported concerns around data quality.

“Endorsement of the same metrics globally might take time, comparability across diverse providers, located in different markets might be challenging, at least at the beginning” – Rating agency
- Considerations/ Limitations to be mindful of:
 - **Marginal benefit of additional KPI-** We should focus only on KPIs with the most explanatory power
 - **Different business models–** High variation of level of verticalization / deverticalization of business models highly constrains capacity of KPIs to be used in a uniform way across sector

“The inevitable hiccups in transitioning a still very nascent market with basically universally loss-making firms to commercial viability.” – Development Organization
 - **How KPIs are used –** As the industry is quite new, and new business models are being tested, KPIs must be carefully defined, and investors should also understand how business model choices can impact KPIs.

“The coherence, accuracy and availability of underlying data as well as implications of slightly different loan terms can hugely skew KPI results. It would be important to also map out loan level definitions and terms to gain alignment before any benchmarking/comparisons can be made useful.” – PAYGo Company

“Metrics need to be normalized across business models. Margins and cash conversion efficiency are more informative than raw sales numbers or portfolio sizes.”- Investor

Summary Analysis of KPIs

Summary of Existing KPIs				
Criteria	Portfolio Size	EBITDA Breakeven	Standards Compliance	FX Exposure
Relevance (Crucial and Important)	68%	32%	16%	21%
Keep the KPI	89%	79%	95%	84%
Agree on definition	63%	58%	84%	63%
Relevant to all PAYGo business models	84%	79%	79%	89%

Portfolio Size

Keep this KPI?

YES 89%

Descriptive KPI; can help provide context about the nature of the business model

It shows how strong the company is in terms of market share

it is more important to know the % of active paying customers over the total

NO; The emphasis is on volume, which is not relevant for a growing number of businesses in PAYG solar.

NO; does not say anything about the effectiveness of the business model

Portfolio Size

Agree on definition of the KPI

63%

Differing sizes of units means incomparability across the sector. Perhaps dollar value of active units sold / dollar value of outstanding loans would work slightly better.

The definition needs to clearly define what Active , Defaulted or Written Off means,

depending on what "active" units mean ? depending on how "units" are defined : when units are sold in a package, as part of a contract, should they be understood as one or more units ?

It could be enriched with portfolio size (as a \$ figure)

Active units seems like a reasonable proxy for customers; however, I imagine that there may be cross sell and upsell to a customer. Is it reasonable to ask for active customers based on some identifier (e.g. mobile number, customer ID)? For models where the unit is paid off (not leased), is there a use in understanding a cumulative portfolio (active + paid off) to analyze scale of activity?

Capacity to borrow or be financed; its quality should be considered as well as portfolio composition i.e. the kind of loanes

You will need to define it further on what is considered active (PAR 30, PAR 60, PAR 90 - what is active?).

Portfolio Size

Relevance to all PAYGO Business models

YES 84%

Doesn't apply to those which sell their products on cash basis.

Yes - just be conscious of perpetual lease vs. PAYGO - rent to own variances.

Will depend on the definition of active versus inactive customers, some companies keep inactive customer for longer as active. If it only includes active members it cannot be used to measure performance as we will also need to know the number of inactive. unpaying customer for more than x time

Does not apply to Start-up, productive uses

Cash sales only companies and B2B players can report sales only.

EBITDA Breakeven

Keep this KPI?

YES 79%

NO. It ignores CAPEX, which is an important component of utility-like business models. And it is inappropriate for any company that relies on balance sheet items like receivables/loans to drive profitability, because the interest expenses to fund those assets and the interest income derived from those assets go to the very core of the business model. Also, break-even is not very informative. EBITDA margin would be more informative. But if we're going to scrap EBITDA, I would suggest we move to net income margin. If you pair this KPI with other descriptive KPIs, say (e.g. age of company, number of customers, regional focus), it would help investor contextualize the figure.

NO; EBITDA is a difficult metric to calculate, as its highly dependent on the accounting policy choices that a company makes for a variety of reasons. Also, EBITDA is not necessarily a good proxy for Cashflow in the PayGo sector (vs other sectors), so is very difficult It to interpret and will be difficult to compare across companies.

NO; There should be a better KPI to measure the level of profitability of the overall operation.

YES; However, needs a clear definition on how revenues should be booked for the purpose of measuring it.

NO; PAYG is a financing business. Although few companies do their accounting as if they are finance businesses, their biggest assets are receivables from vendor-financed contracts. Even of those that have reached EBITDA breakeven, few are generating free cash. I am concerned EBITDA breakeven is deceptive, at least at the corporate level where they take on debt.

EBITDA Breakeven

Agree on definition of the KPI

58%

Though perhaps would be helpful to have EBITDA breakeven for the PAYGO segment alone if the company operates in non PAYGO segments also.

The current definition does not really help to determine if a company is able to continue operating its PayGo business or maintain operational and strategic investment.

I think the yes/no is a useful milestone KPI but am skeptical what it will tell us across a large number of firms that are mostly answering no. Would suggest a related alternative such as EBITDA coverage ratio.

e.g. fixed costs per unit, operational costs per unit, overhead per unit

Recommend a definition that defines treatment of key revenues (e.g. interest payments) and expenses to ensure like-for-like comparison. A stylized income statement would be helpful.

Be cautious that companies are now starting to set up SPVs, where the company (parent level) might not be EBITDA+ but the SPV could be EBITDA+ (or vice versa), which could complicate the issue. Maybe add "at the parent level" in the definition?

EBITDA Breakeven

Relevance to all PAYGO Business models

YES 79%

It is less useful for companies that fashion themselves as utilities, and useless for companies that fashion themselves as lenders. It may be somewhat useful for companies that are more like retailers.

EBITDA is highly subjective and sensitive to business model choice and accounting policies.

Except for NGO-type businesses.

If companies separate the finance/Paygo income statement from the operational I/S then it is easier to compare. However, if not it will depend on how the revenues are booked. EBITDA breakeven, should give us a view on the costs associated to each unit sold and the minimum number of sales required to breakeven.

Standards Compliance

Keep this KPI?

YES 95%

NO; Not sure how it will be useful to track on an ongoing basis for any stakeholder. Investors would either have requirements to support LG standards or not from my experience.

NO; prefer to only look at those companies using systems that are in compliance. We will not use it as a KPI but as a de facto requirement

Yes and no. In the absence of a better measure of quality of service, it is a good indicator of the quality of equipment. However, Net Promoter Score is perhaps a better measure of the customer perception of the service offered as a whole.

% of product mix that is Lighting Global otherwise third-party certified is interesting. Perhaps a corporate KPI. Performance in the field is more interesting and valuable because the cost of warranty service can eat up limited cash. Companies that cannot honor their warranties will not have strong portfolios.

Standards Compliance

Agree on definition of the KPI

84%

the definition could take into account other lighting standards.

Would expand to include other quality standards - not all hardware is exposed to LG.

Defect/technical issue rate

Cost of Warranty Service as % of Avg Portfolio Value Number of Warranty Replacements as % of Open Contracts/Accounts Staff-Hours of Call Center calls spend on technical support as % total Call Center Staff-Hours Avg time to resolve customer technical issues from first contact

Standards Compliance

Relevance to all PAYGO Business models

YES 79%

NOT TO; some PAYGo companies sell not only lighting products but other products as well, sometimes separately from the light. It should be considered how KPIs can apply to other products and still reflect the quality of portfolio/company as a whole.

There other international standards other than Lighting Global. For example component-based systems but applying PAYGO model.

NOT TO; PAYG solar is beginning to cross over into new sectors and services and not only linked to lighting, although I realise this is the emphasis of these KPIs. Also, as equipment is becoming multi-functional, there is a need to ensure that not only the lighting component is assessed. e.g. PAYG cookstoves that offer lighting.

FX Exposure

Keep this KPI?

YES 84%

NO; As most PayGo businesses will be operating in non-USD / EUR based countries, they will have significant FX exposure relative to USD / EUR. If the purpose of the definition is to determine FX risk, then I think by definition we are all exposed, so not sure what to calculate, and also, I am not sure this definition would help tell you the amount of exposure.

If industry experts feel that the majority of PAYGo liabilities is and will remain in foreign currency, then this is important.

NO; I think this is a pain to collect and doesn't serve much of a purpose for investors, lenders, or the entrepreneur.

But I don't think this KPI is that important as maybe the rest.

FX Exposure

Agree on definition of the KPI

63%

what % of your revenues are not in USD / EUR, or what % of your revenues or receivables are in non-USD currencies? This will be easier to interpret than the current metric.

How are multiple currencies managed here? The calc assumes all non-hard currencies are the same risk? Not sure if stakeholders would find the metric useful.

You need to build something in the defines the FOREX rate you are using, since these markets are volatile and the rate can change - even if the ratio stays the same.

Make sure to net out according to debt currency base as well.

A note that equity is an accounting value and not really a measure of cash available as an immediate buffer against FX loss. As the industry matures, this may evolve.

The definition is very hard to follow unless you have a financial degree. The concept is easy, how much money is going to go up and down due to currency fluctuations and important. For us this is more a sanity check when doing due diligence than a KPI though.

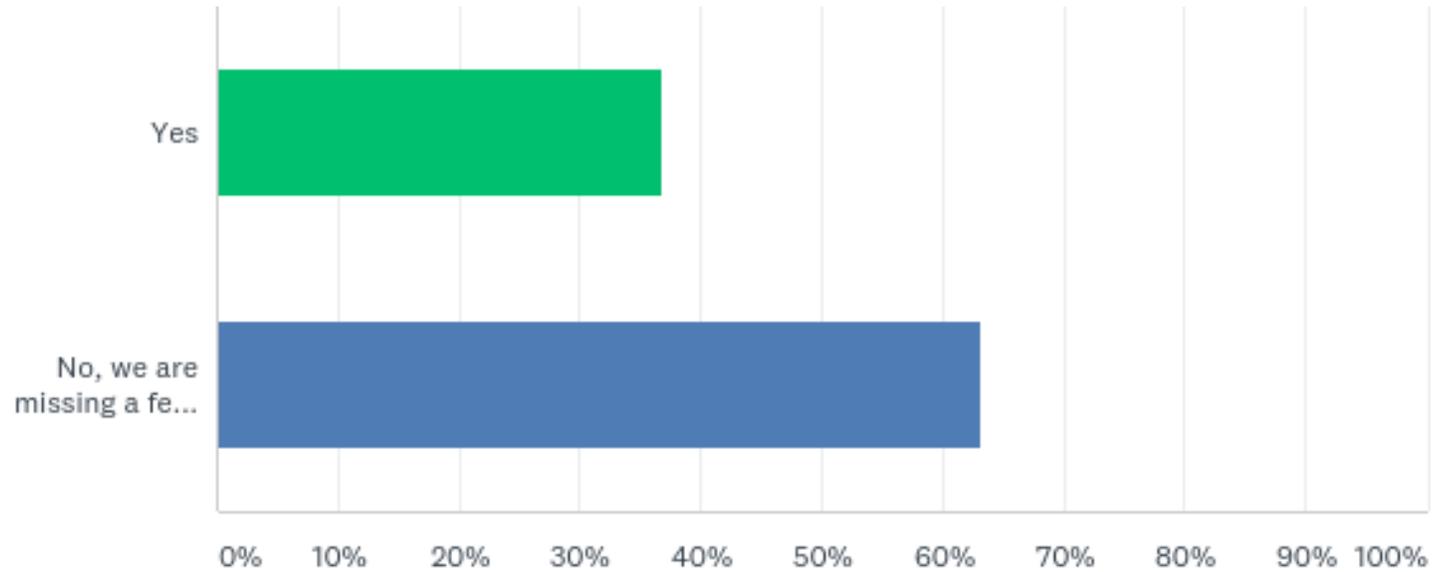
FX Exposure

Relevance to all PAYGO Business models

YES 89%

Some companies operating in hard currency-linked local currencies would find this less relevant.

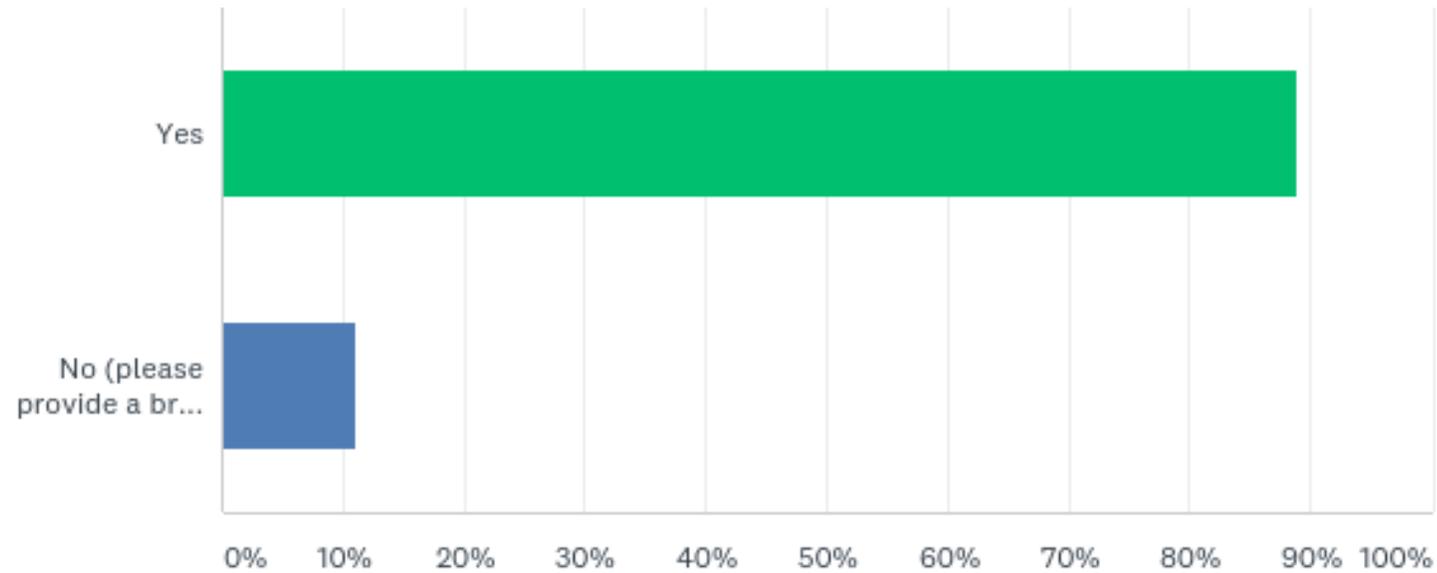
Do you believe the list of current KPIs as defined in the Annex section are sufficient to analyze the financial and operational performance of PAYGo solar companies?



Please list any additional KPIs that you believe are missing and should be included to evaluate financial and operational performance of PAYGo Solar Companies.

- **Cohort analysis** – critical to understanding KPIs across companies to account for different levels of maturity
 - **Revenue Recognition**– recommended to be integrated into the appropriate revenue (ARPU) and profitability (EBITDA) metrics to ensure comparability. Additional suggestions: Credit sales value recognized as revenue on day 1 as % of total credit sales value - Receivable Asset value recognized on day 1 as a % of total credit sales value
 - **Operating Performance**– This should include Product Sold Average Selling Price, # of Distribution Outlets, Cash Collections, Customer Acquisition Cost, Sales per Outlet, repossession rate, repair/recycling rate, sales agent turnover rates, write-off/provisioning as % of avg portfolio size, avg customer distance to nearest warranty service center, inventory turnover rates
 - Additional KPIs suggested
 - Expected payback and how is it defined
 - Average payback period (actual) vs expected
 - Revenue Realization (turning receivables into cash) as more important than recognition. Recognitions is an accounting question, while in the end cash is king.
 - Collection / utilization rates
 - Solvency ratios – including write offs and provision policies
- “We should determine which categories of things we want the KPIs to cover. So for example portfolio quality, expense management, business model summary and of course profitability” – Development Organization
- “Can churn and PAR include customer data on reasons for non-repayment or why inactive.” – Investor
- “Clear definitions for Active, Write Off, or Receivables at Risk are important, irrespective of a company’s internal policies, such that performance is comparable sector wide.” – PAYGo Company
- “Severity rate, which in the mortgage industry is used to reflect the severity of defaulted balances. Another one is Days Sales Outstanding to understand and compare the efficiency and ability to avoid cash flow crises.”- Development Organization

Would you recommend using cohort analysis when evaluating the overall performance of PAYGo solar companies?



If no, please provide a brief explanation

Most respondents were in favor of using cohort analysis when evaluating portfolio quality.

However, some **cautioned the need to consider differences in geographies and business models.**

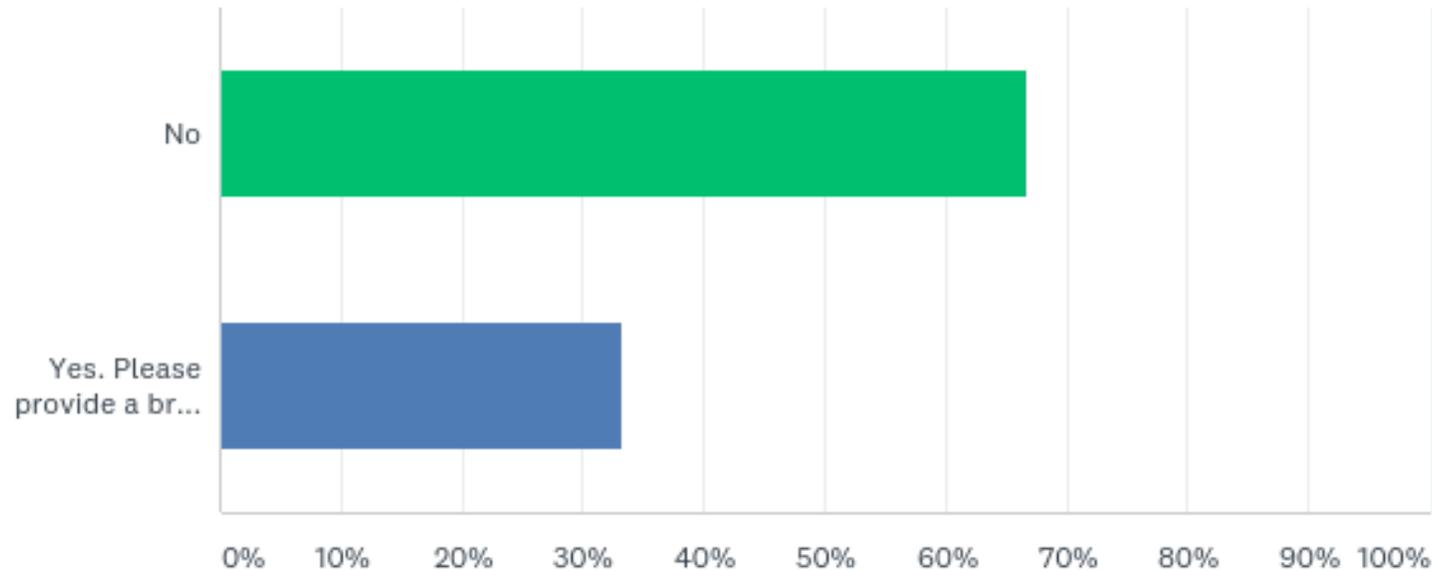
- “Well yes, but I think important to define how you will determine cohorts. By # units sold?” – Invesor Firm
- “I recommend doing it but it is not a key performance indicator. If we call everything a KPI then nothing is a KPI I would rather see us reduce it to 3 KPI and the rest being normal performance indicators.” - Investor

Please specify for which KPIs it could be relevant to use cohort analysis when evaluating PAYGo Solar companies' performance

- Utilization rate
 - Portfolio Size and Growth
 - PAR
 - Churn
 - EBITDA / EBITDA Break Even
 - Total Revenue
 - Units sold
 - # loans extended
 - Write-offs
 - Underlying product type / credit terms
 - Average Maintenance
 - Margins
 - Customer Acquisition costs
 - All unit economic related KPIs
 - All the quantitative metrics
- For each cohort it would be good to know how much
 - Cash received
 - Active receivables
 - Receivables written-offWith clear definitions of each category

“Pretty much all of them”

Are there any other analytical tools that you suggest / recommend using when evaluating the financial or operational performance of PAYGo solar companies?



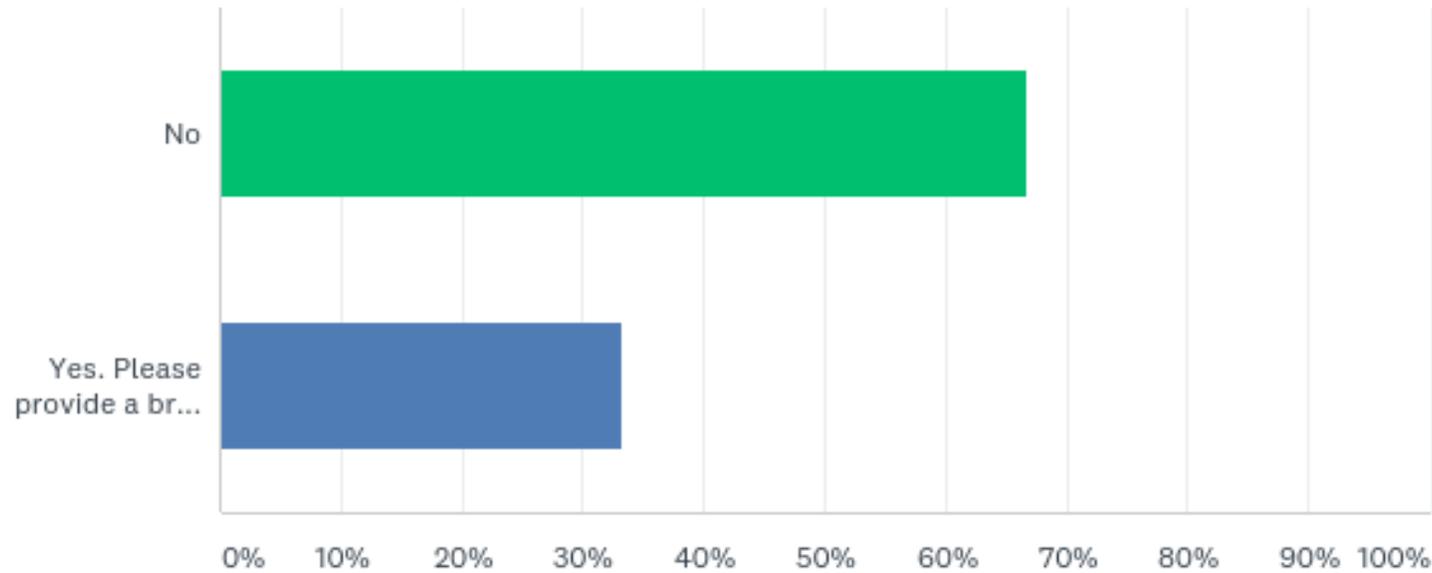
If Yes, please provide a brief description:

- At the customer end, they suggested:
 - **Common sized financial statement analysis:**
 - **Financial ratings:** provides an opinion on the long-term institutional sustainability and creditworthiness through a comprehensive assessment of risks, performance and market positioning
 - **Stage of Business Development:**
 - **Segmentation:** to break down customers by energy use intensity or other parameters

“Focus on robustness of data set, keep simple” – Investor

“To keep it simple, an excel template with KPI calculations and demo data. In particular, its important that underlying loan level data sets are provided with standardised calculations and terms - KPIs can be built upon this. Analytical tools like tableau/metabase/looker would be useful if a clean/coherent data warehouse was created for such loan data.” –PAYGo Company

Are there any other analytical tools specific in reporting that you suggest / recommend in using when evaluating the financial or operational performance of PAYGo solar companies to ensure comparability?



If you answered yes to the previous question, please include as detailed a description of the metric(s), the type of investor(s) that request it (them), and please give an indication of the frequency/burden of the request(s)

- Stay with what we have to focus on robustness of data set, keep simple
- The Taxonomy guide is maybe useful for investors to understand the context of these financial and operational KPIs.
- “Yes let all companies in the googla group sign a contract that mandates them to release their data as a post mortem in case they fail. In a sense an obituary for all companies that fail or default on outstanding debt to allow us to compare the KPI metrics to actual real life defaults. ”

“Descriptive KPIs, based on identified dimensions of differentiation. For example, financing (or allowing customers to pay over time) is an important distinction. You would look at a company that provides more financing very differently from a company that provides less. So % of units financed would be an important descriptive KPI. Similarly, you might analyze a company that sells fewer larger units differently than a company that sells more small units. So things like average unit size and number of customers would be useful descriptive KPIs.” – Development Organization

If you are a representative from a PAYGo solar company, would your company consider sharing data under the following scenarios?

ANSWER CHOICES	RESPONSES	
a) I am not a representative of a PAYGo solar company or am not authorized to respond to this question.	61.11%	11
b) Yes, if the data is shared with a third party and anonymized.	11.11%	2
c) We are willing to share relevant data or indications on working group discussions to test out various KPIs but are not comfortable sharing data otherwise.	5.56%	1
d) No, we are not comfortable sharing internal data at this stage	5.56%	1
e) Other	16.67%	3
TOTAL		18

If Yes, please provide a brief description:

- Most relevant considerations:
 - **Data should be anonymized**
 - **Self assessment:** instead of sharing internal data at this stage
 - **Benefits / derived information should be made freely available to the operator**
 - Sharing data should be done through a **trusted and neutral third party**
 - Data should only be shared **in aggregated form** when individual companies could not be identified
 - We need to be able to answer **What is in it for the companies** to share the data

“We collect data from PAYGo companies and would consider sharing aggregated and anonymized datasets under specific circumstances (need to protect confidential and personal data), particularly to test and validate the utility of specific KPIs identified and assessed through the perform working groups. ” – Development Agency

“To keep it simple, an excel template with KPI calculations and demo data. In particular, its important that underlying loan level data sets are provided with standardised calculations and terms - KPIs can be built upon this. Analytical tools like tableau/metabase/looker would be useful if a clean/coherent data warehouse was created for such loan data.” –PAYGo Company

Additional remarks

- **Comparability!** Primary issue investors running into are the inability to compare apples to apples

“We collect data from PAYGo companies and would consider sharing aggregated and anonymized datasets under specific circumstances (need to protect confidential and personal data), particularly to test and validate the utility of specific KPIs identified and assessed through the perform working groups. ” – Development Agency

“To keep it simple, an excel template with KPI calculations and demo data. In particular, its important that underlying loan level data sets are provided with standardised calculations and terms - KPIs can be built upon this. Analytical tools like tableau/metabase/looker would be useful if a clean/coherent data warehouse was created for such loan data.” –PAYGo Company