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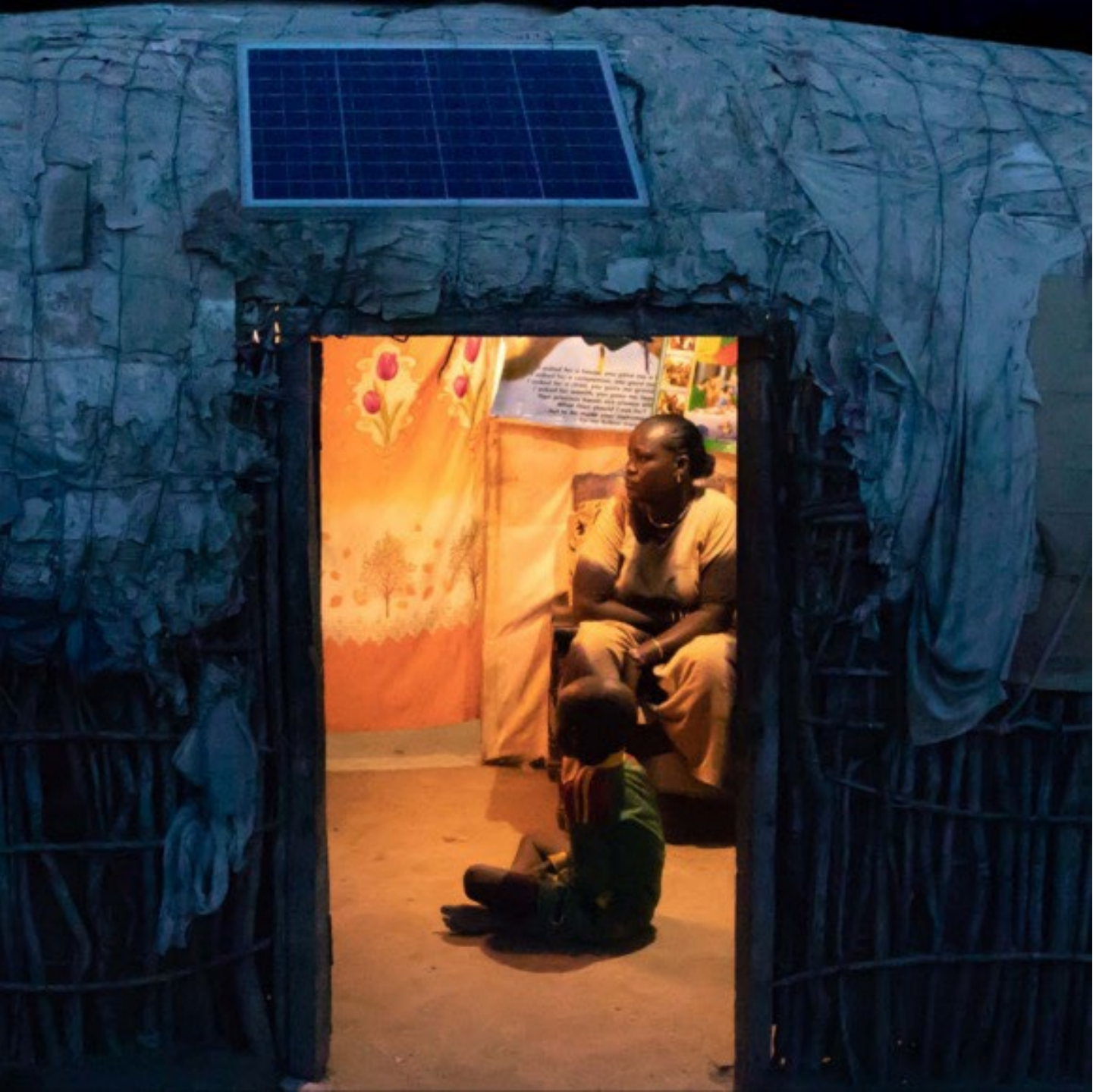
VeraSol Product Certification: Future Pathways and Implications

June 2025



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Leaving no one behind

VeraSol works to increase access to modern energy services through high-quality off-grid solar products that build confidence in modern solar solutions and protect the most vulnerable consumers.

100 million people

currently have improved energy access from using VeraSol certified solar energy kits.

VeraSol's Four Programmatic Pillars

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Quality Assurance Framework

Test methods, standards & labs

- Test Method development
- Quality standards development
- Test laboratory network

Product testing & certification

- SEK & PURE testing
- SEK certification
- Market surveillance

Technical assistance

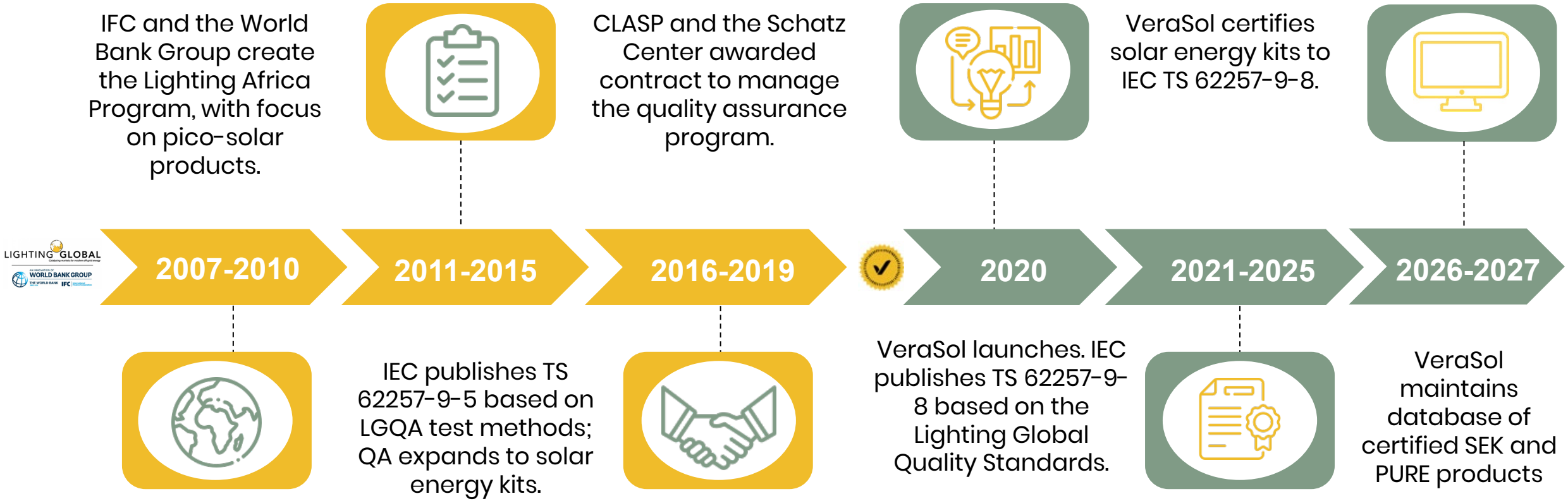
- Governments
- Development partners
- Cross-party advisory

Public good creation

- Stakeholder outreach
- Information sharing
- Product data sharing

Quality Assurance Evolution

Launched in 2020, VeraSol is an evolution and continuation of Lighting Global Quality Assurance (and Lighting Africa QA before that).



Supporters of VeraSol past & present

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Past donors

THE WORLD BANK

IFC
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UKaid
from the British people

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Current donors

ESMAP
Energy Sector Management Assistance Program

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support via Energy Access Institutions Facility

Quality assurance is foundational for achieving off-grid components of SDG7

- Meeting SDG7 will require deployment of solar energy kits to 200-300 million people who are still unelectrified.
- Subsidies, such as RBFs, are needed for the hardest-to-reach population to access affordable modern energy services.
- VeraSol certification has played a key role in ensuring the products delivered through RBF programs are high-quality and meeting consumers' expectations.

Vision for the Future of Product Certification

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A decentralized certification operational model delivered by trusted commercial partners—ensuring quality, expanding access, and accelerating innovation in global markets.

Decentralized

A network of qualified commercial partners to deliver testing and certification services.

Scalable

A new commercial certification model that can be applied to other productive use of renewable energy (PURE) products.

Sector Driven

Industry and sectoral users share greater responsibility in sustaining VeraSol's success.

Current & Future Product Certification Operation Models

Current process for certifying solar energy kits

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1. Initial Engagement
Company contacts VeraSol to initiate certification requests

2. Paperwork
VeraSol develops a test plan based on provided product information

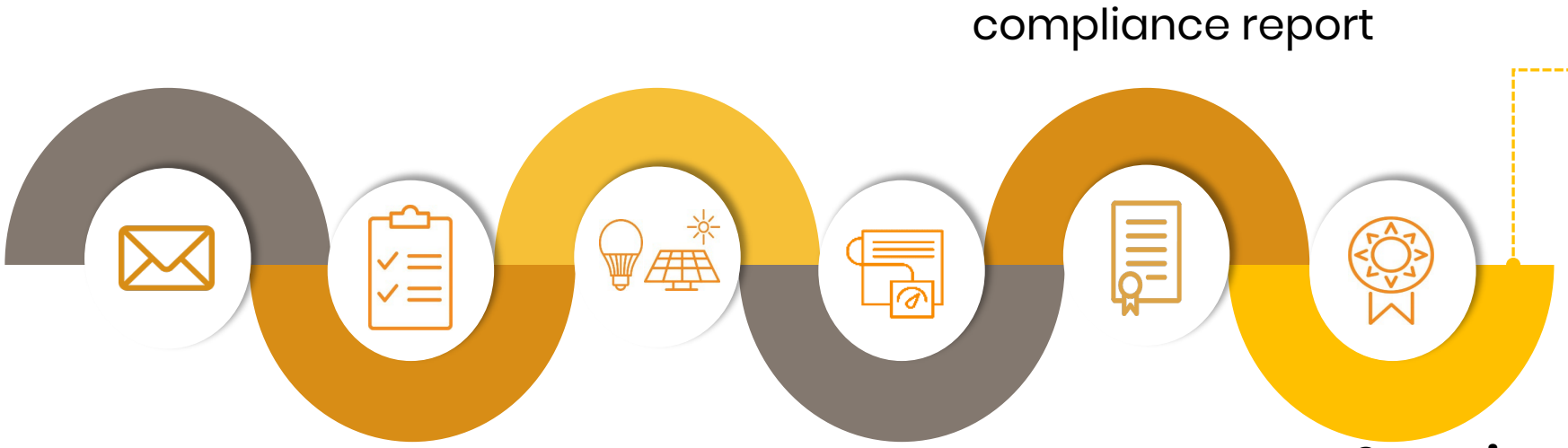
3. Random Sampling
VeraSol coordinates random sampling

4. Testing
Test lab issues test report.
VeraSol reviews test report.

5. Compliance
VeraSol determines conformance to the requirements and issues a compliance report

6. Issuing Certification Documents
VeraSol creates Standardized Specification Sheet and Certificate.

7. Posting Results
VeraSol shares certification results via an online product database.



Proposed certification process changes

Activity	Responsible Party	
	Current process	**Proposed process**
Initial engagement	VeraSol	Commercial lab/partner
Create test plan	VeraSol	Commercial lab/partner
Coordinate random sampling	VeraSol & Sampling agent	Commercial lab/partner & Sampling agent
Issue test report (IEC 62257-9-5)	Commercial lab	Commercial lab
Issue compliance report (IEC 62257-9-8; starting May 2025)	VeraSol	Commercial lab/partner
Conduct due-diligence on testing & compliance results	VeraSol	VeraSol
Publish certification documents on database	VeraSol	VeraSol

Estimated Timeline for Transition

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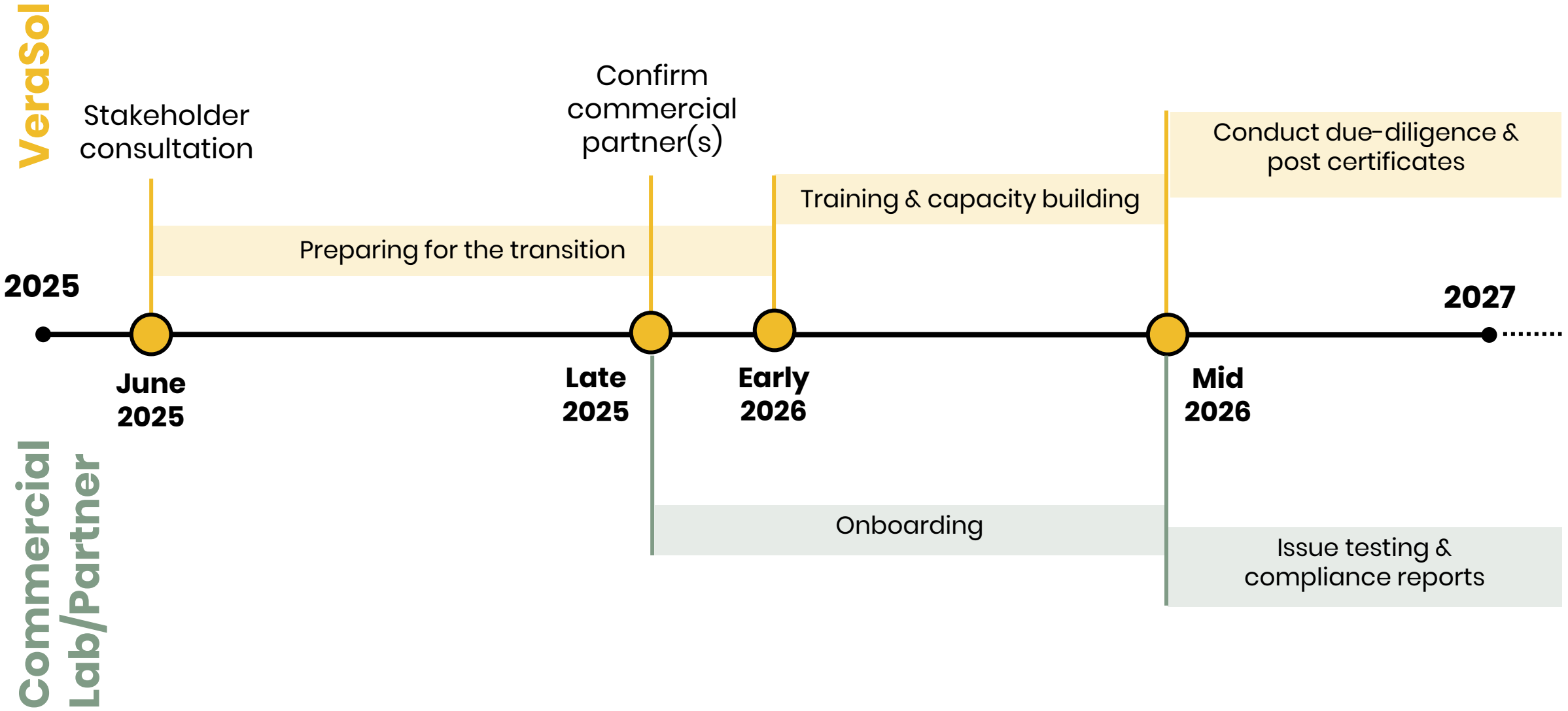
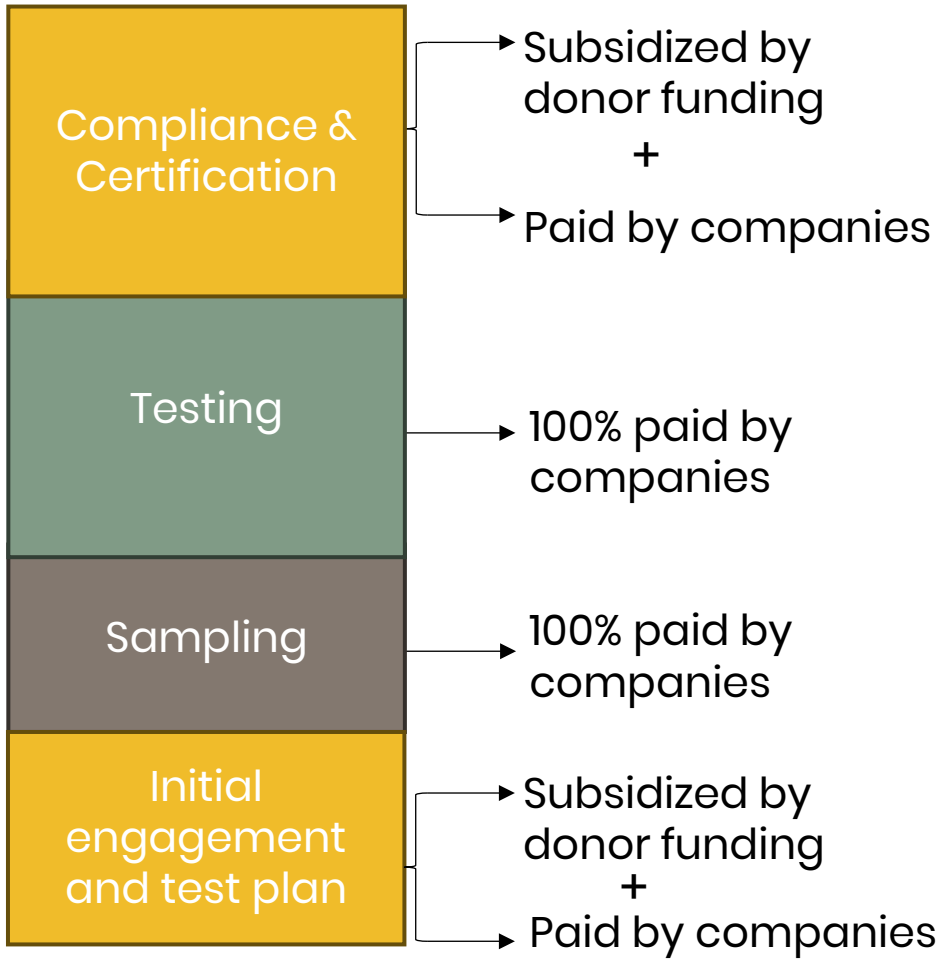
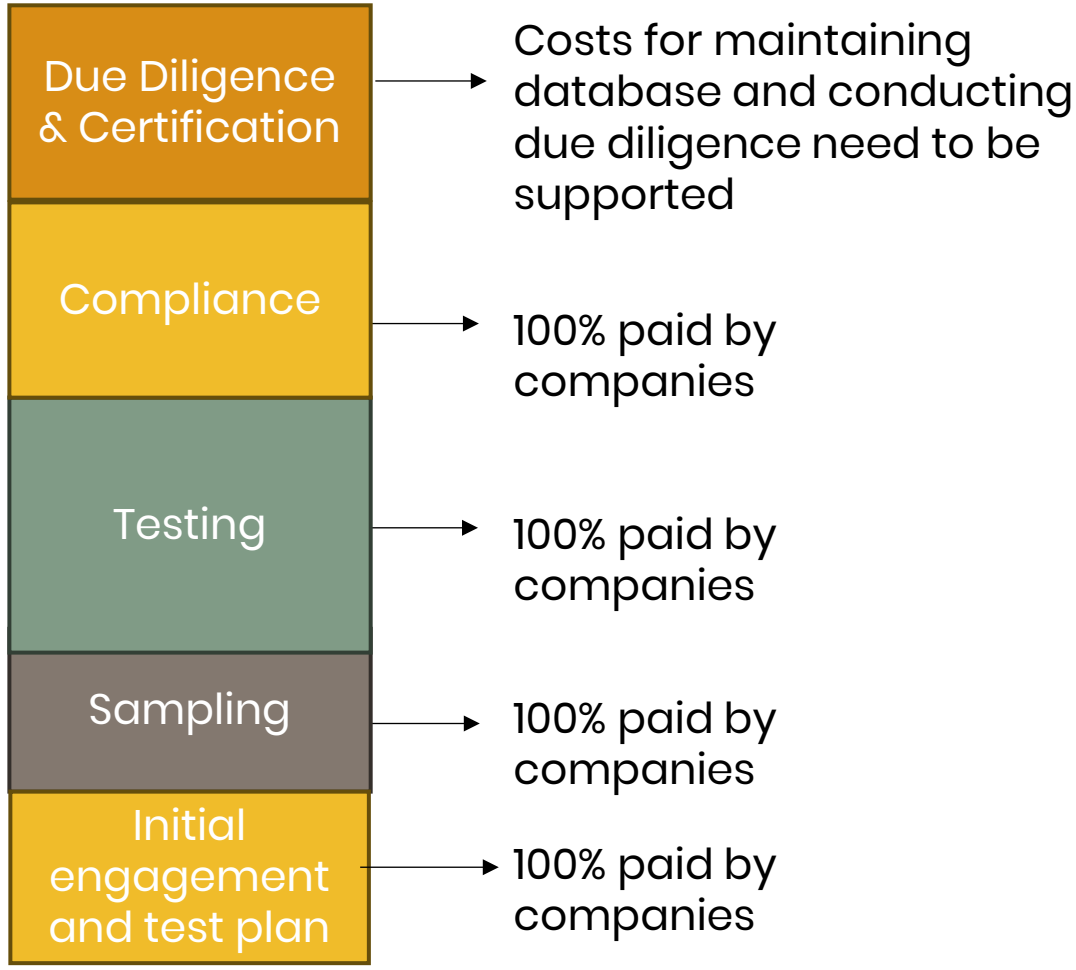


Cost Implications

Current Process



Proposed Process



Note: Bar size is illustrative and not to scale

Current Quality Assurance Framework for PURE

Elements of VeraSol Quality Assurance Framework

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COMPLIANCE & CERTIFICATION

Evaluate and confirm products meet quality standards

QUALITY STANDARDS

Determine and set baseline levels of product quality

TESTING & DATA

Generate product performance and quality data to inform actions

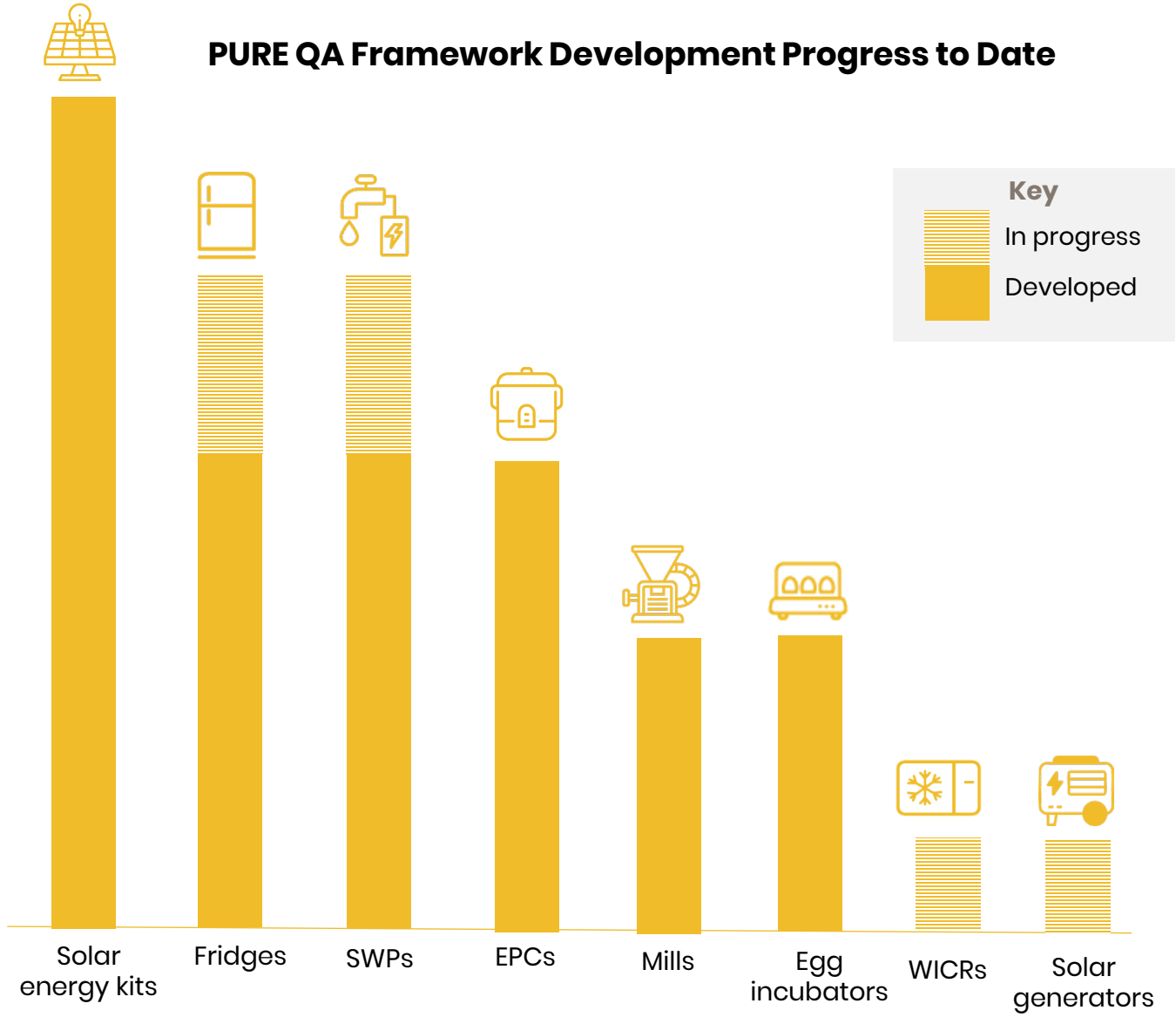
LAB CAPACITY

Identify and support testing partners to provide testing services

TEST METHODS

Define how product quality and performance is measured

PURE QA Framework Development Progress to Date



Proposed Certification Pathway for PURE

Activity	Responsible Party	
	Current	Proposed Process
Pre-testing coordination	VeraSol	Commercial labs/ partners
Arrange sampling	VeraSol & Sampling agent	Commercial partners & Sampling agent
Issue test report	Commercial labs/ partners	Commercial labs/ partners
Issue compliance report	N/A	Commercial labs/ partners
Due diligence & certification	N/A	VeraSol
Post product on database	VeraSol	VeraSol

- Certification pathways for PURE in the future
  - Full commercial certification (same model as SEK certification)
  - Roll out the certification process on a product-by-product basis

Cost Implications

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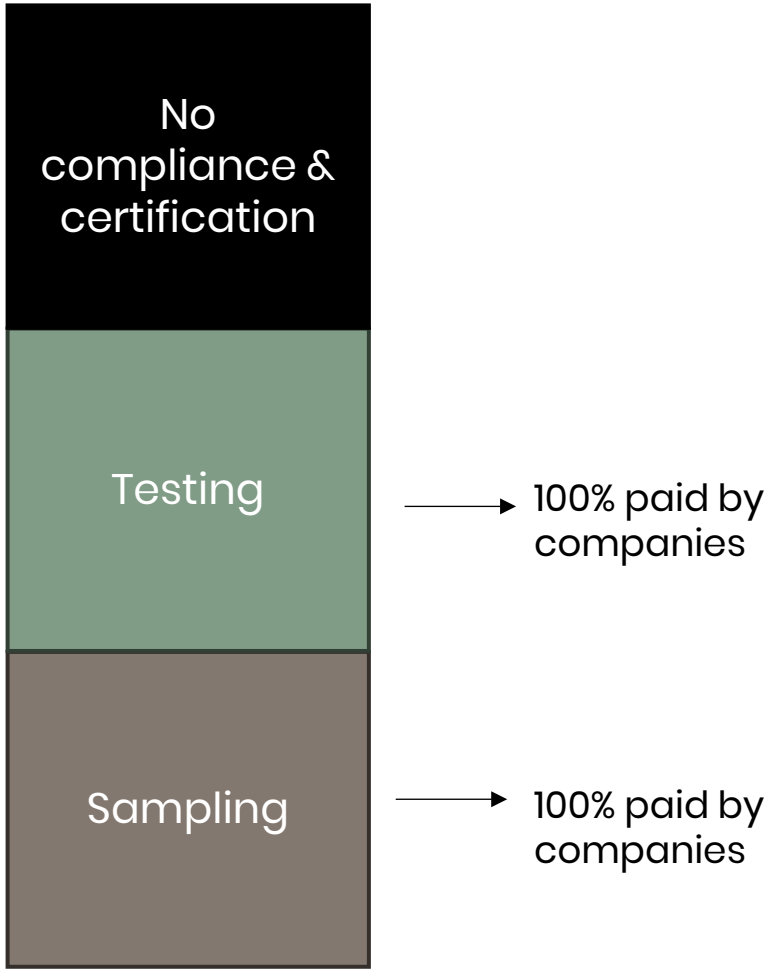
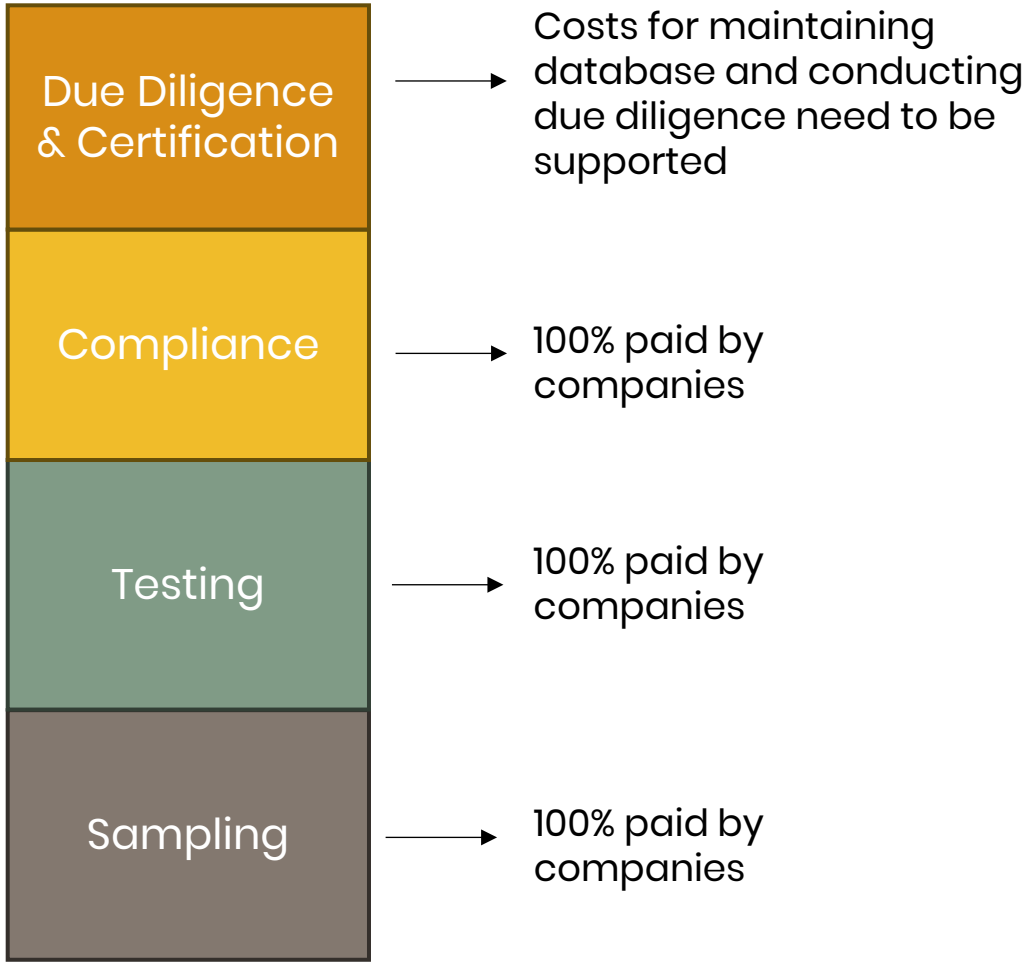
Current Process



Proposed Process



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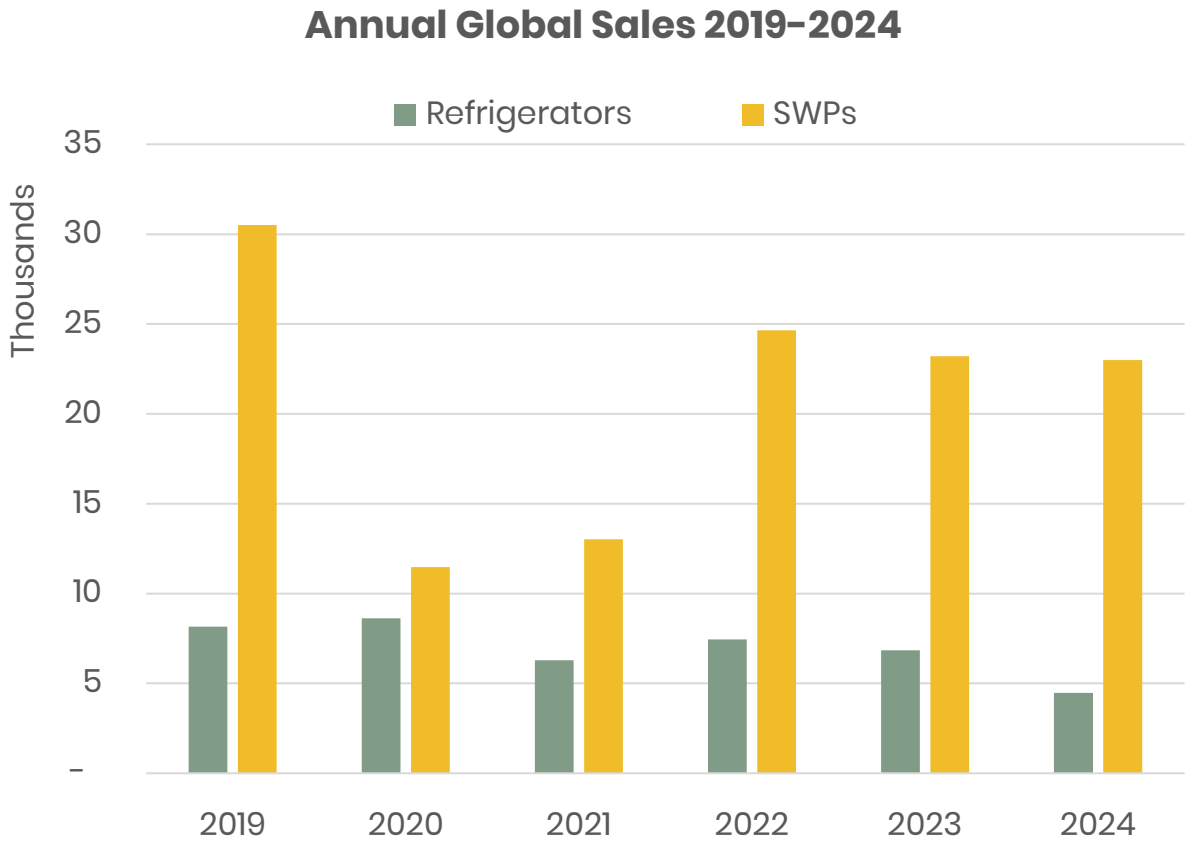
Technology Scope

Certification will start with **solar water pumps** and **refrigerators**, before selecting one other potential product category.



Source: GOGLA, Semi-Annual Solar Market Report.

Our next steps for Refrigerators & SWPs

- Submitting revisions to IEC SWP test method IEC 62253:2011 (est. Dec 2025)
- Creating preliminary version of the SWP quality standards (Q1 2026)
- SWP quality standard & certification process

- IEC 63437 publication (est. Dec 2025)
- Creating preliminary version of the refrigerator quality standards (Q1 2026)

Need for Post-Transition

Core functions requiring ongoing support

- Maintain and update test methods & quality standards
- VeraSol database maintenance & upkeep
- Conduct due-diligence to verify certification results
- Implement market surveillance

Alternative Scenario without sustained revenue/funding

- Discontinuation of maintaining and updating test methods and quality standards
- Discontinuation of VeraSol certified product list and database
- Increased due-diligence burden on programs & funders
- Little to no market surveillance in markets with limited regulatory capacity

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