


# **Go Solar! - mainstreaming solar in Nepal's energy mix**



July 2014

# How do you transform

**Selling solar products**

**Selling energy services**

**Expensive**

**Affordable**

**Solar in the fringe**

**Solar in the portfolio**



# Mainstreaming solar

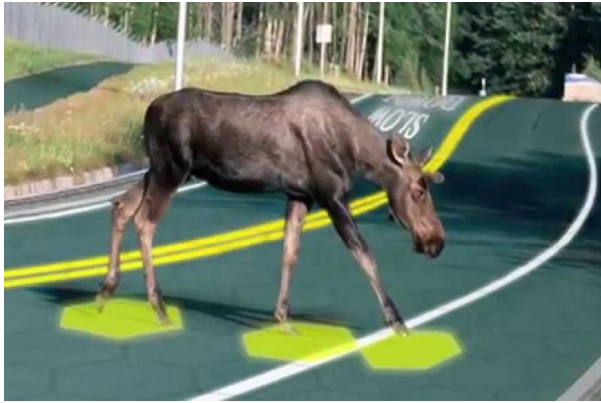


Ralph Lauren solar powered backpack

Utility-scale Solar  
Power Plants

Distributed solar  
solutions

# Distributed solar solutions



**Case-study**



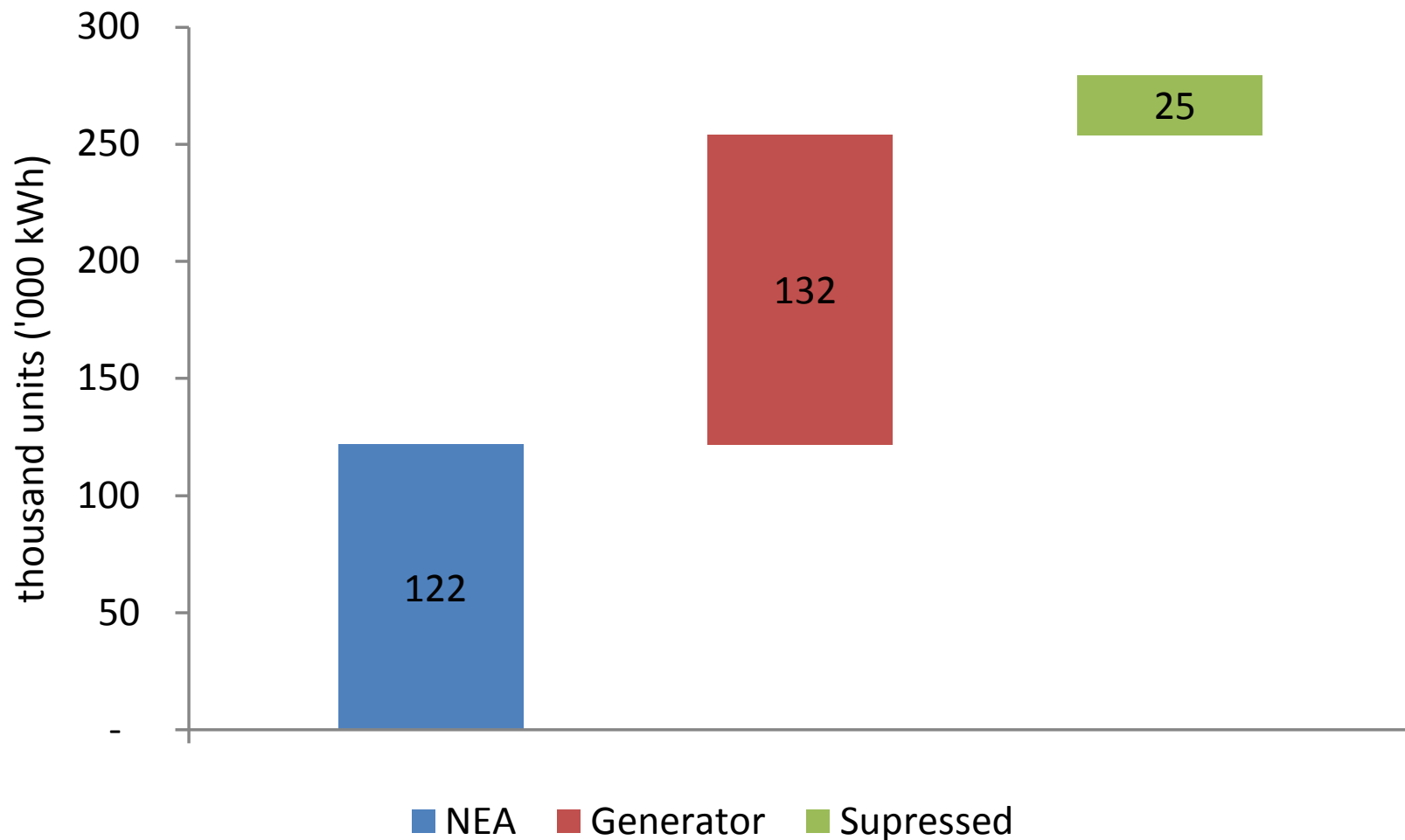
**Thoughts**

Solar roadways

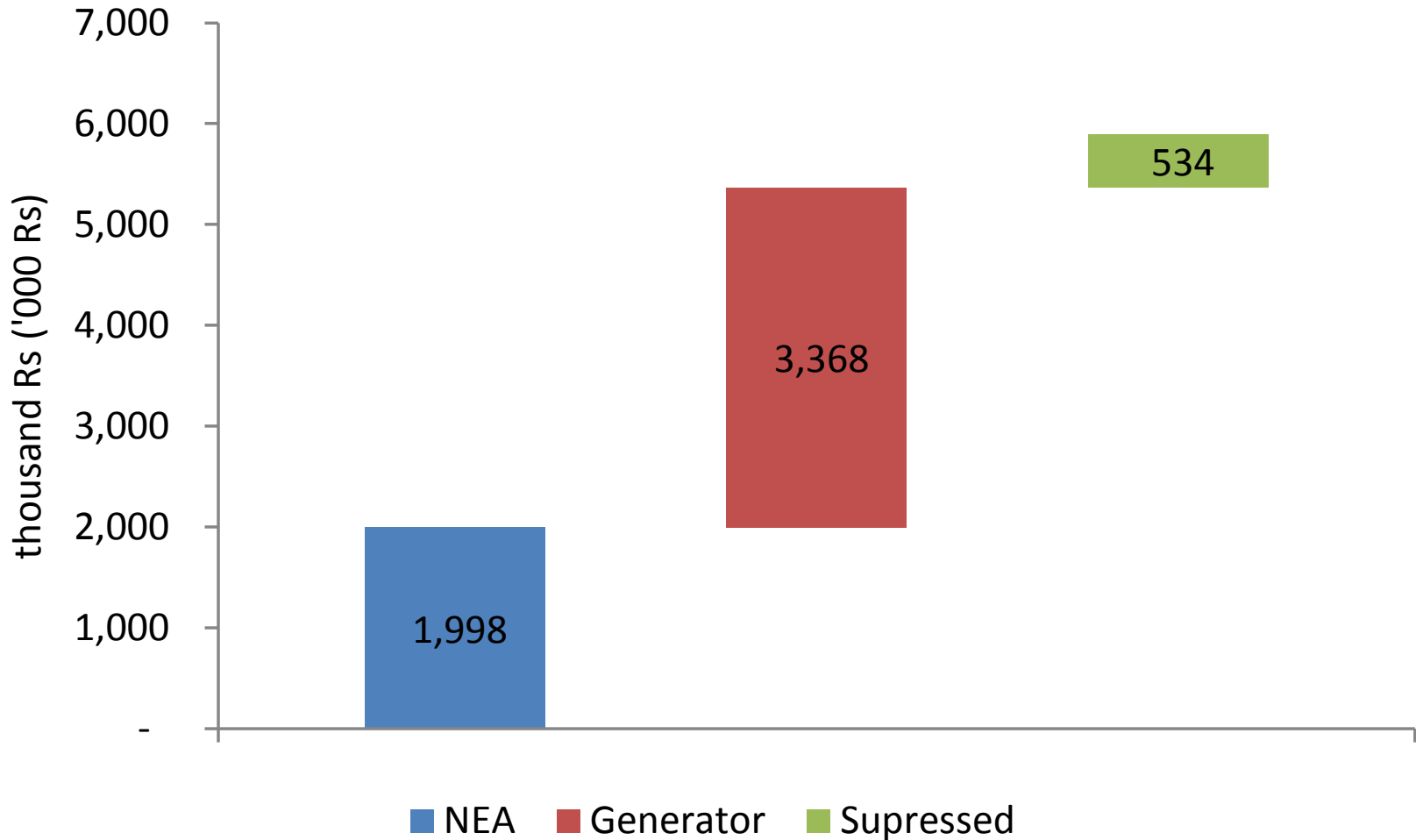


# Case-study

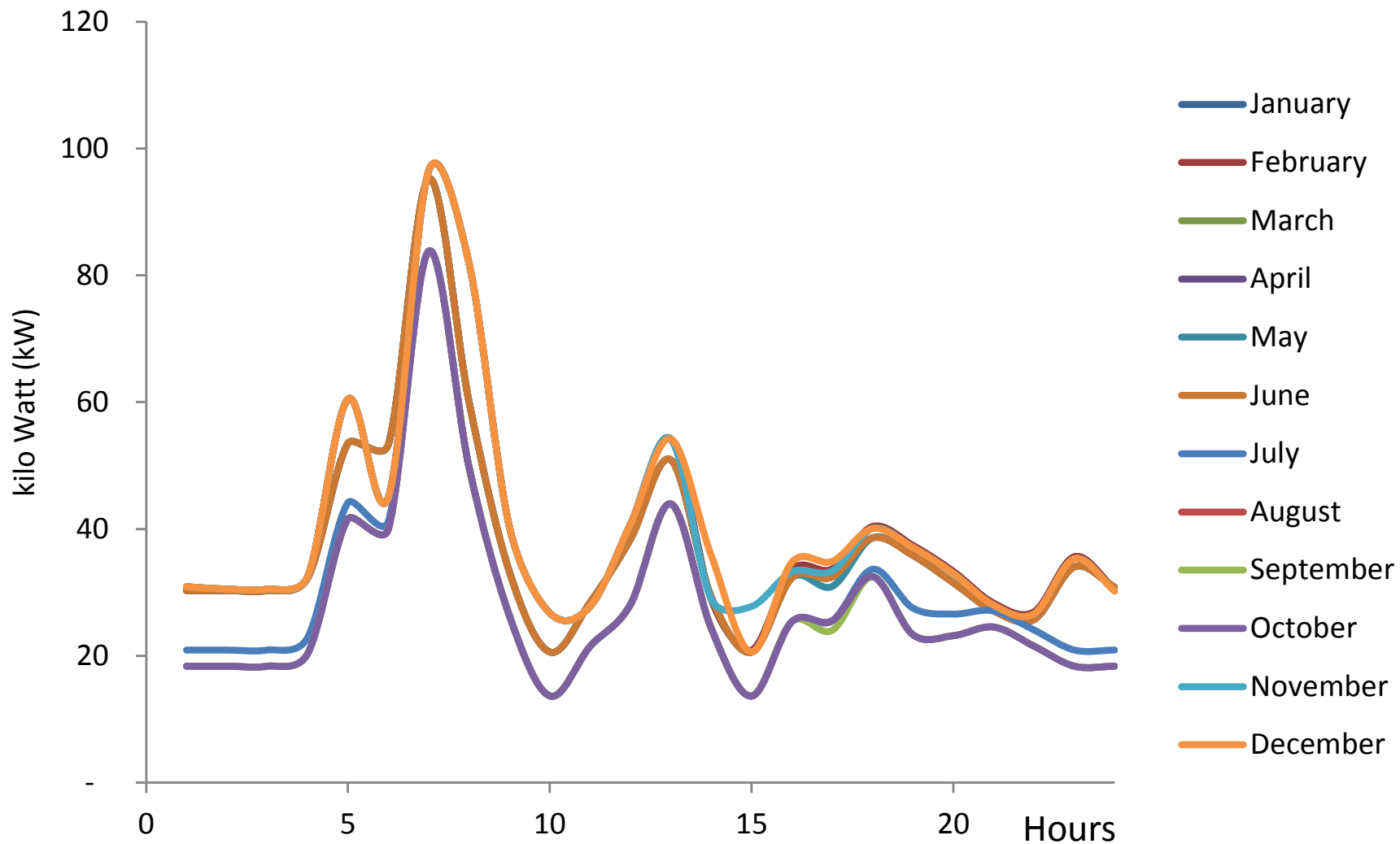
# Hotel facility with annual load of ~ 300 MWh



# Spending ~ NPR 60 lakhs on energy



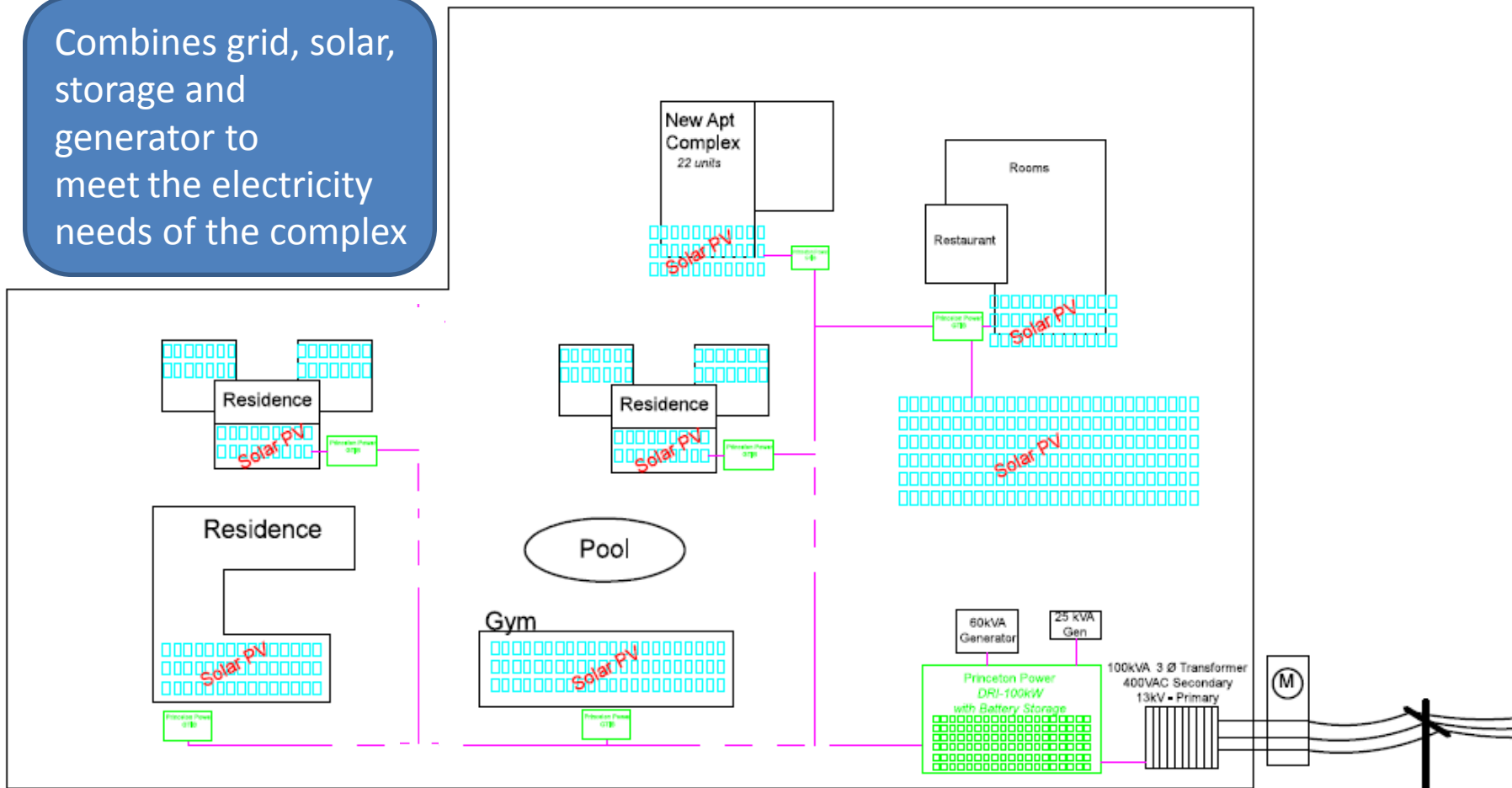
# Typical daily profile





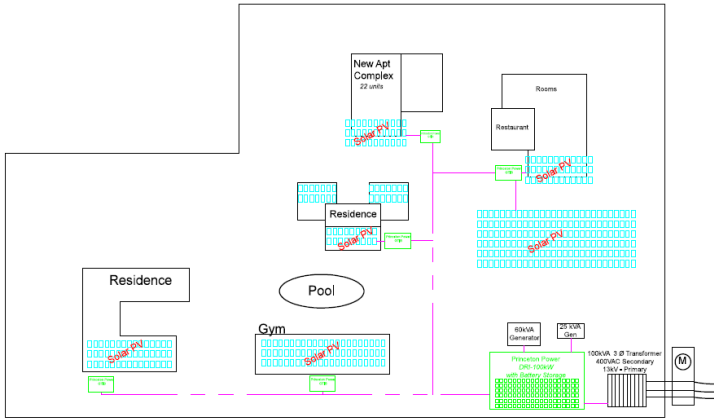
# Proposed solution: urban mini grid with energy services

Combines grid, solar, storage and generator to meet the electricity needs of the complex



# Energy services company that provides energy security

## Customer



Energy Services Company

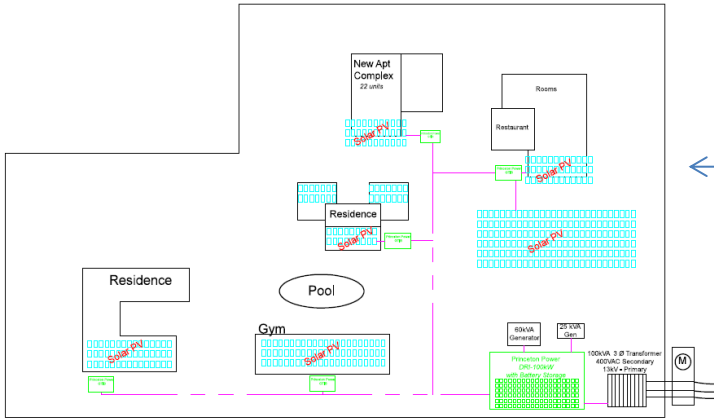
Company  
26/11/62



NEA - Utility

# Energy services company that provides energy security

## Customer



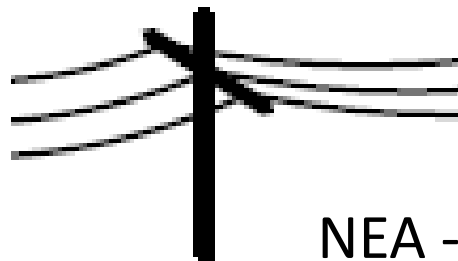
Supplements  
grid supply

Full energy  
management

Energy  
Services  
Company

Company  
26/11/2022

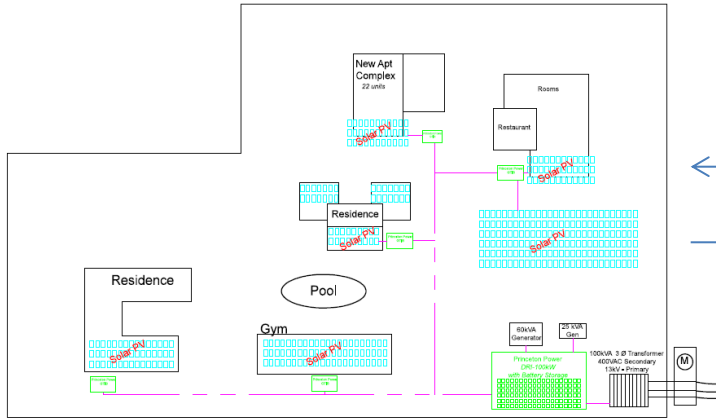
Supplies grid  
electricity



NEA - Utility

# Energy services company that provides energy security

## Customer



Energy service

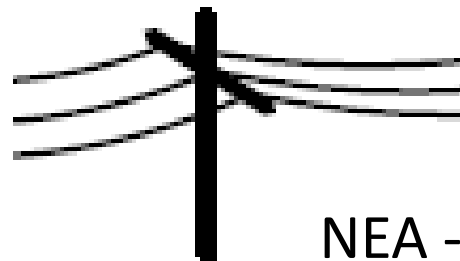
Paid for service

Energy Services Company

Company  
261A1C62

Supplies grid electricity

\$ for grid supply



NEA - Utility

# Proposed long term energy contract

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Energy Services Annual Fee : 60-65 lakhs

Year 8 – Adjustment period:  
Level of grid supply over the  
last 7 years.



Energy Services Annual Fee based on  
adjusted price

Example: If 100% grid supply on  
average by year 8, all electricity  
supplied under energy services will be  
at NEA price



# Multiple challenges

## Financing

- Contract cannot be easily project financed

## Long term contract

- Very little confidence in B2B long term contracts

## Threat of grid supply

- Perception that NEA will have excess supply by 2017-2018



**Thoughts**

# How do you get solar on every roof (or bag-pack) in Nepal



Capitalize on strong pool of sector players

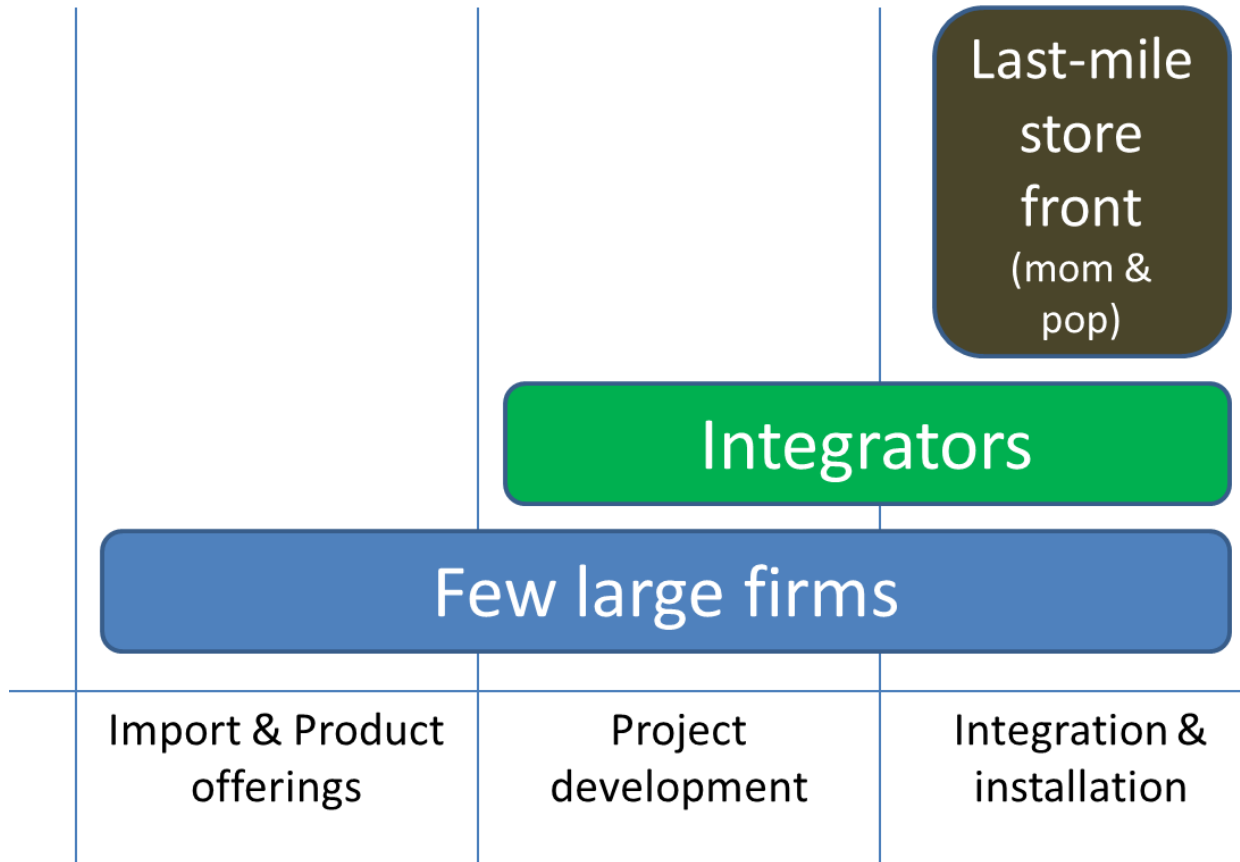
Leverage financing

Incentive generation

Mystery punchline?



# Capitalize on strong pool of sector players but must mature

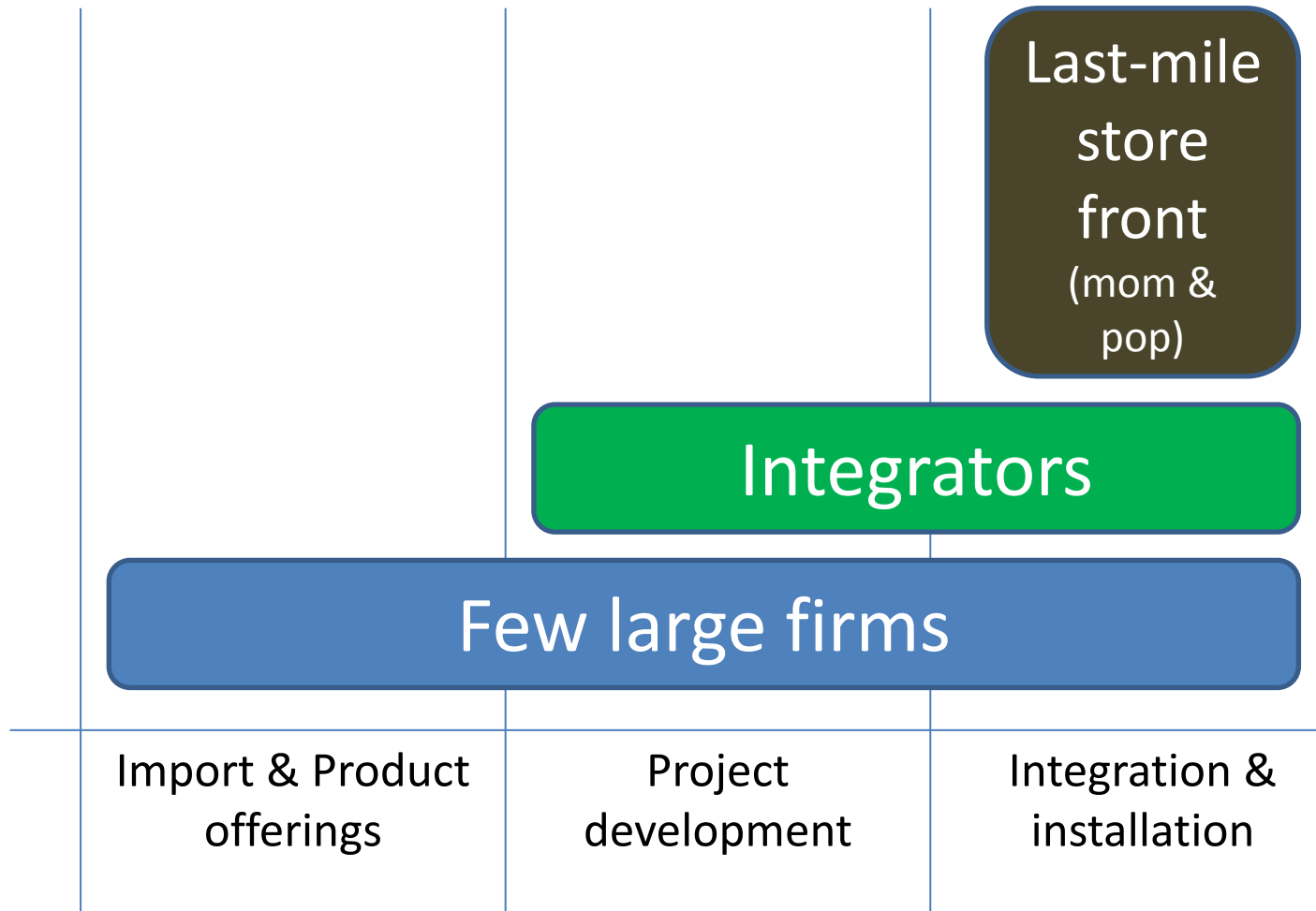


Need differentiation

- Pure play importers & product companies

Growth must be in integrators & last mile store front

# Capitalize on strong pool of sector players



# Scale can only be achieved with financing



You can't make a Ralph Lauren solar bag cheap,  
But with financing, you can make it affordable!

Policies must now change to incentivize generation, not capital support

With generation incentive, financing will follow


# How to get solar on every rooftop in Nepal?

समूह/बार	आइतबार	सोमबार	मंगलबार	बुधबार	बिहीबार	शुक्रबार	शनिबार
समूह-१	०४:००-०९:०० १३:००-१८:००	०९:००-१३:०० १७:००-२२:३०	१०:००-१४:०० १९:००-२३:३०	११:००-१७:००	०६:००-११:०० १८:००-२१:३०	०५:००-१०:०० १६:००-२०:३०	०५:००-१०:०० १४:००-१९:००
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Stop publishing the load shedding schedule



# Bishal Thapa



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