

“Opportunity of PV Market Development in Thailand”

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Plans of PV Solar of Thailand in the next 20 Years

	Ministry of Energy		National Reform Steering Assembly	
	Solar Farm	Solar Roof	Solar Farm	Solar Roof
2014				
2015	3000	200		
2020	?	?		5,000
2036	?	?		5,000
	6,000 MWp		10,000-20,000 MWp	

Topics of Reforming Renewable Energy Proposed by NRSA

1) Solar Roof (No Quota)

Gov. approved 100 MWp Pilot Project of Solar Roof in March 2016.

2) Electric Vehicles (EV)

Gov. approved the Project to promote EV in 2015.

3) Building Energy Code

Gov. approved to draft BEC in April 2016.

4) Draft of Renewable Energy Act

During making draft in NRSA.

5) RE for Community

During making draft in NRSA.

6) Energy Service Company for Government Offices

During making draft in NRSA.

7) Cluster of Solar PV Industries

During making draft in NRSA

Comparison of PV Projects in Countries (2016)

Country	Solar Roof	Solar Farm
Japan	98%	2%
Germany	90%	10%
France	80%	20%
Thailand	6%	94%

Summary of PV Programs in Thailand

System	COD	Program	Each Size (kWp)	Price (บาท/kWh)	Period (Year)	Total Capacity (MWp)
Solar Farm	2015	Adder	<10,000	8.00 or 6.50 +Baise	10	1,400
Solar Roof (Com)	June 2016	FIT	10-250	6.55	25	100
Solar Roof (Com)	June 2016	FIT	250-1,000	6.16	25	
Solar Roof (House)	June 2016	FIT	<=10	6.96	25	30
Solar Roof (House)	June 2016	FIT	<=10	6.85	25	70
Solar Farm (Pipe)	June 2016	FIT	<90,000	5.66	25	800
Solar Farm (Agriculture Coop.)	2016	FIT	<=5,000	5.66	25	300
Solar Farm (Agriculture Coop & Gov.)	2017	FIT	<=5,000	5.66	25	400+100
					Total	3,200

Proposal of Solar Roof (No Quota) BY NRSA

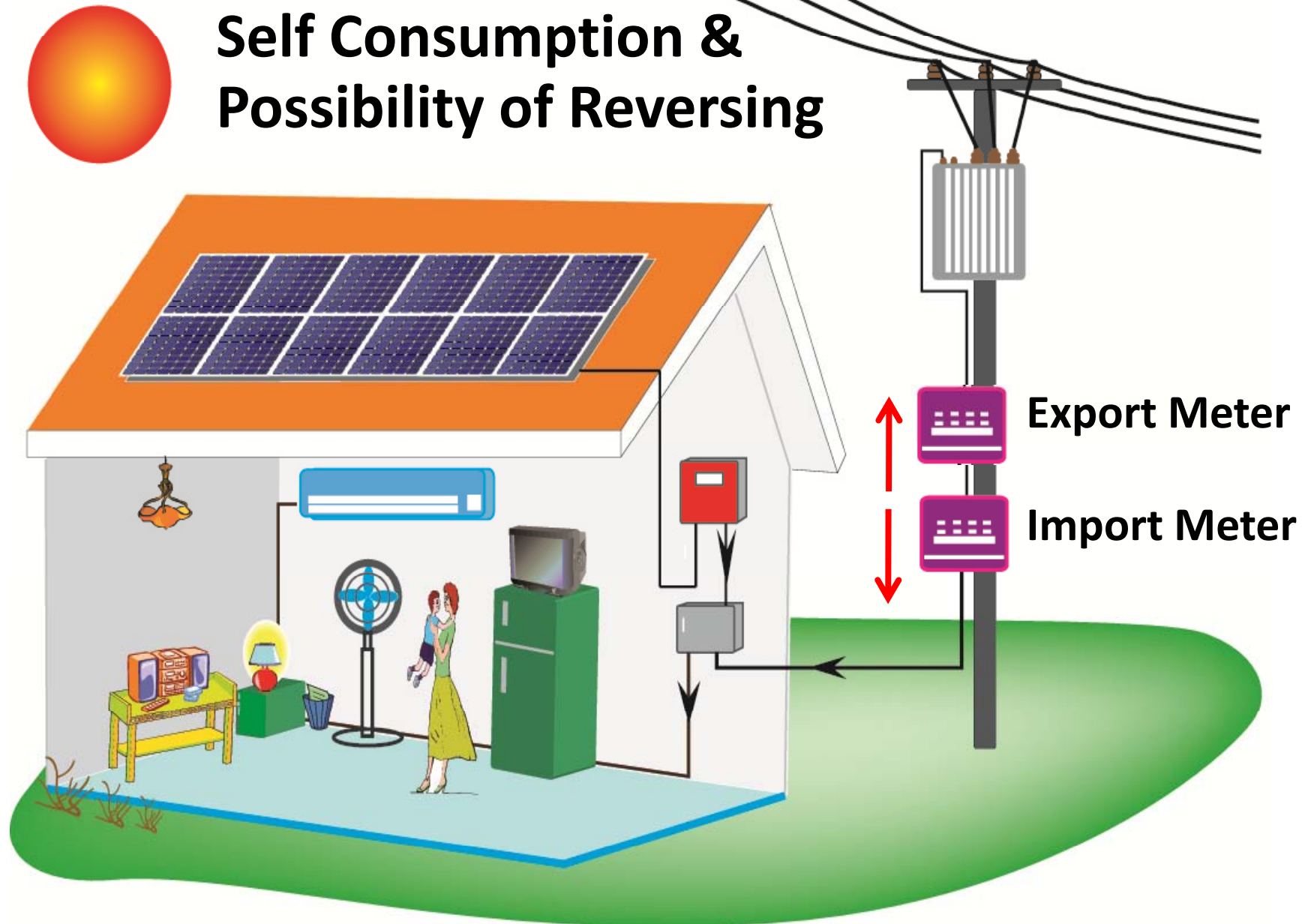
Problems in the past

- 1. Limited Capacity**
- 2. Limited Area**
- 3. Limited Application Time**
- 4. Limited Investors**
- 5. Limited Feeder**
- 6. Limited COD**
- 7. FiT need a lot of subsidiary.**

New Proposal by NRSA

- 1. No Limited Capacity**
- 2. No Limited Area**
- 3. No Limited Application Time**
- 4. No Limited Investors**
- 5. Depending on Capacity of Feeder**
- 6. No Limited Time of COD**
- 7. Self Consumption.**

Solar Roof by NRSA Self Consumption & Possibility of Reversing



How to Invest in Solar Roof in Thailand

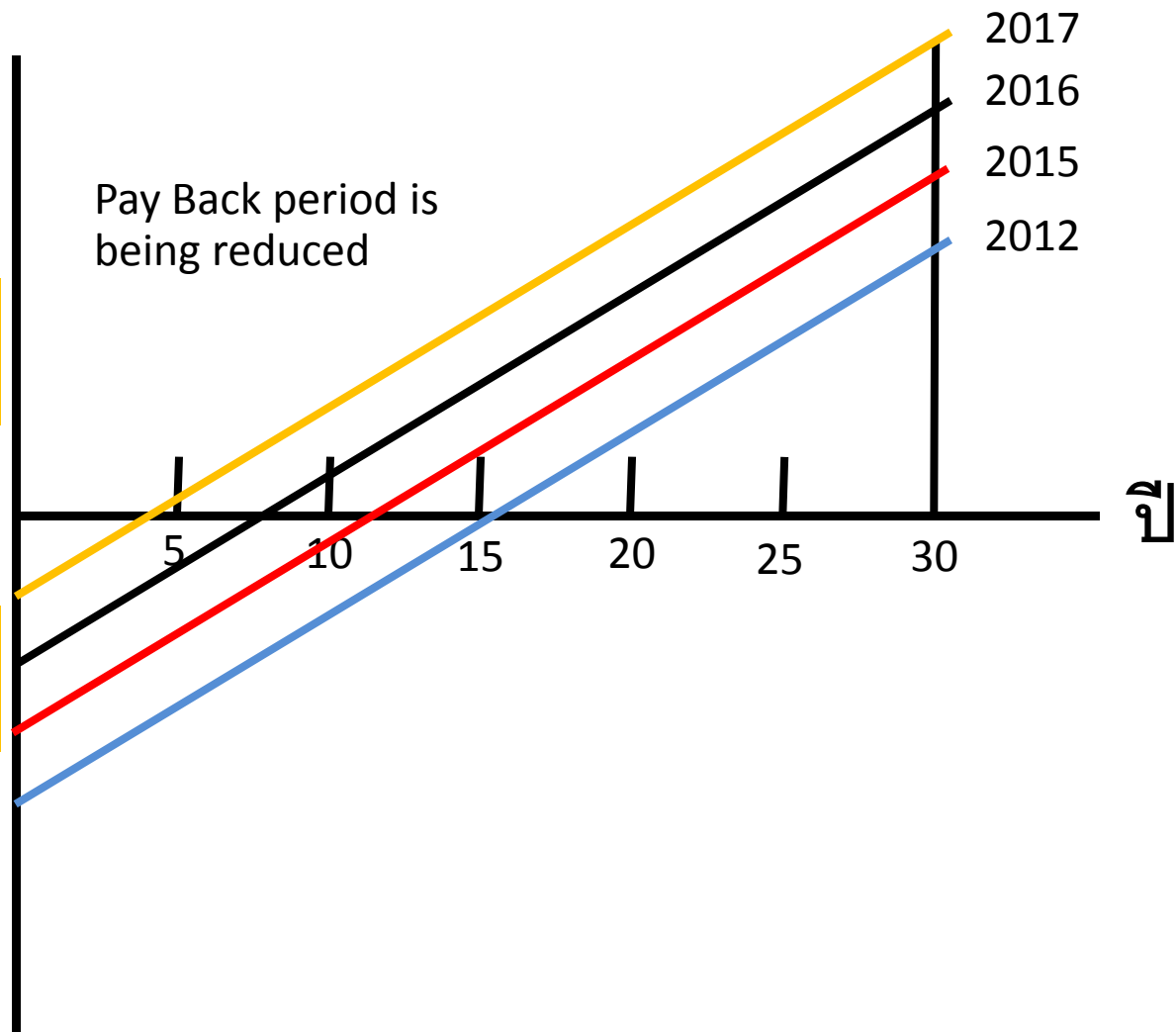
	Program	Conditions	Status
1	Feed-in Tariff	Sell electricity 100%	Closed
2	Self Consumption	Electricity cannot be reversed to grid	Anytime
3	Pilot Project of Solar Roof (No Quota)	Self Consumption. Reversed Electricity will not have value.	To be announced in mid 2016
4	BOI 1/2557	50% of investment will contribute in deducting corporate income tax.	To close in Dec. 2017

**Benefit from
Solar Roof
(Baht)**

+

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Pay Back period is
being reduced



EV Car



Building Energy Code

Modification of Old Building

Larger than 2,000 sq. meter and have air conditioning

New Building

Area >10,000 sq.m. from 2019

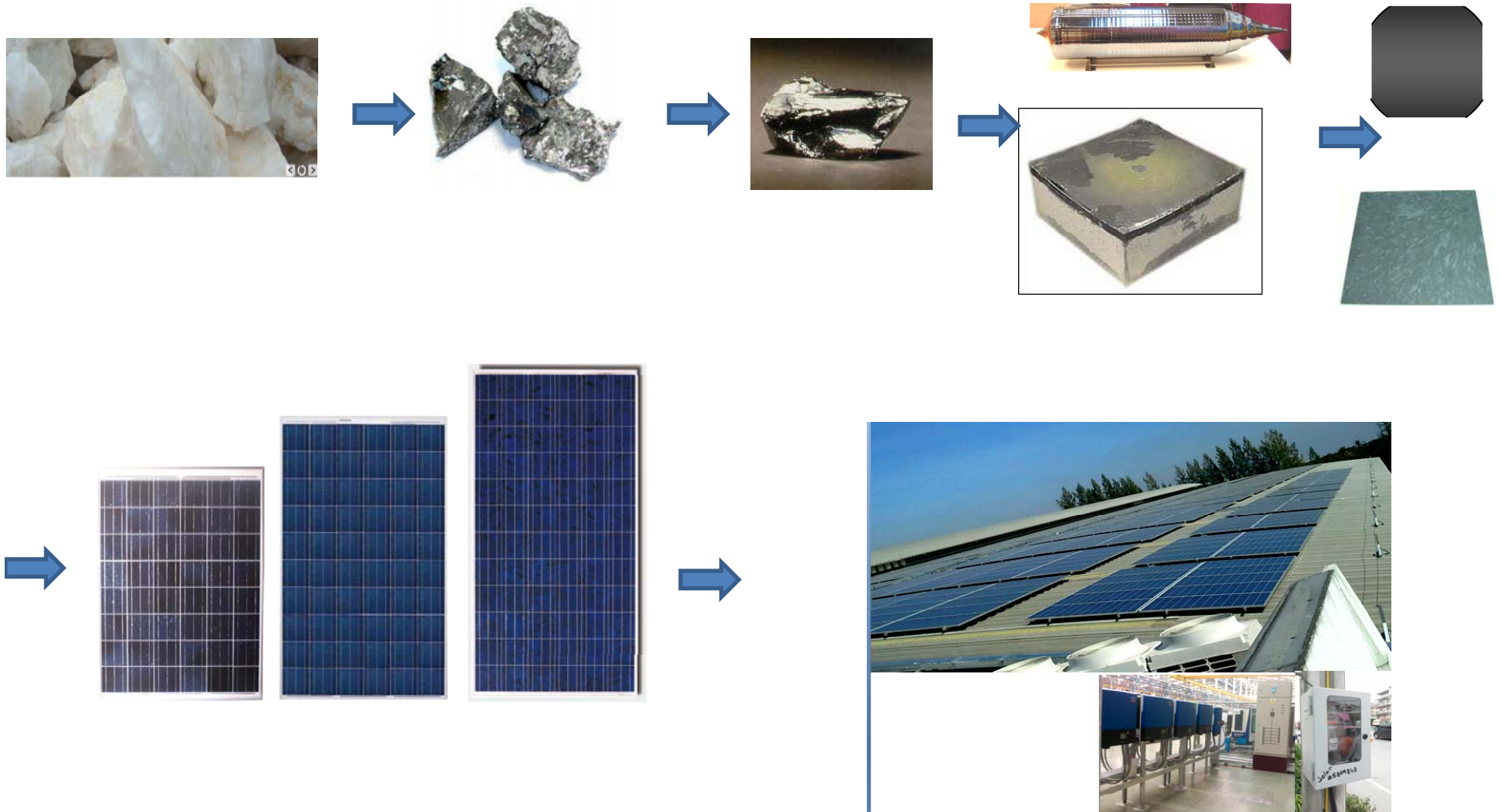
>5,000 sq.m. from 2020

>2,000 s.m. from 2021

- Natural Light.
- Solar Roof will be promoted.



Cluster of PV Industries in Thailand



THANK
YOU