

(Home Energy Management System)

## For Smart Phone (Android 2.3 or higher)

# **User's Manual**

Ver. 2.1 Aug. 20, 2015



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### Preface

This manual provides useful information when you monitor HEMS display on your smart phone.



### **Terms of Use**

ENEGATE HEMS app only applies to ENEGATE HEMS.

ENEGATE HEMS app can be installed to the smart phone with;

OS:	Android 2.3 or higher spec OS
Size of the screen:	From 4 inches to 6 inches
Resolution:	1440x2560, 1080x1920, 720x1280, 540x960, 480x800(854)

NOTE : ENEGATE HEMS app will be revised without prior notification.

### 1. Downloading and Installing ENEGATE HEMS app

If your smart phone is supported by Google play, you could download and install HEMS app from Google Play.

#### **Procedure**

[1] If you search in the keyword: "enegate" or "hems" at Google play, you could find "ENEGATE HEMS" easily. And then tap 'INSTALL'.





[2] Tap "ACCEPT" button. And then start downloading.



### 1. Downloading and Installing ENEGATE HEMS app



[3] After downloading, tap "OPEN" button. And then start HEMS app.

[4] You can find "ENEGATE HEMS" icon on your application screen.



#### Procedure

This procedure is supposed to be assisted by the HEMS installation engineer. [1] Start ENEGATE HEMS app by tapping "ENEGATE HEMS" icon.



[2] Push Menu button\*\* on your smart phone and then tap "Initial Setting" menu.



\*\* If Menu button is not on your smart phone, it might be on the screen as a software key.

[3] Type "Product No." of your SGW as below.



da.		D 🔅	ul 🖻 11:09
Initial Setting	g		CLOSE
Smart Gateway info.			
Product No.	*	WW300047	
Security Password	*		
Server Name ecc	olog	y-th.enegate	.jp
Electricity Tariff	то	U tariff (Below	N <b>-</b>
HEMS Model	Sav	ving model	•
Selling Rate for PV		5.0 E	3aht/kWh
		Version: 1.4.4 (	2015/08/10)
	0	K	

[4] Type "Security Password" as below.



If you want to try "ENEGATE HEMS" app without the HEMS installation, you could use a demo account as below: Product No. : **WW300047** Security Password: **test** 

[5] If you want to change "Electricity Tariff", you could tap the list and select the list item.



[6] If you want to change "HEMS Model", you could tap the list and select the list item.

🗈 🔹 🗈 11:10			🗅 🗟 😤 🖬 🖸 11:10
Initial Setting CLOSE		Initial Setting	CLOSE
Smart Gateway info.		Smart Gateway info.	
Product No. WW300047		Product No.	WW300047
Security Password *		Security Password *	••••
Server Name ecology-th.enegate.jp		Ser N	
		Saving model	
Electricity Tariff TOU tariff (Below 🔻		Ele	
HEMS Model Saving model		HE/ PPA model	$\odot$
Selling Rate for PV 5.0 Barran	,	Sel NET model	💿 vh
Version: 1.4.4 (2015/08/10)			Version: 1.4.4 (2015/08/10)
OK		C	DK

### "Saving Model" and "PPA Model"

ENEGATE HEMS supports two models: "**Saving Model**" and "**PPA Model**". At "HEMS Model" section in initial setting, you should choose "Saving model" or "PPA model".

Solar Roof Air Conditioner -Buying Meter MDB ..... Π (3m CT cable) HEMS BOX Refrigerator **M** CB Opti (SEL) outer ΤV

"Saving Model" is to save the electricity with PV generation.

"**PPA Model**" is Power Purchase Agreement for selling electricity. It is necessary for you to apply for the electric company to sell electricity.



[7] Tap "OK" button and Solar Roof screen will be appeared.



[8] If you want to display screen in Thai, push "Menu" button and select "Display Setting" menu.



[9] Tap the "Default Language" list and select the list item. And Then tap "OK" button on the bottom of the display setting screen.



### 3. Starting HEMS app

[1] Start ENEGATE HEMS app, and then Solar Roof screen will be appeared.



[2] If you want to finish HEMS app, you could push Menu button on your smart phone and tap "Exit" menu. (When you push home button on your smart phone, HEMS app will be disappeared on the screen.)



### 4. Overview HEMS app

ENEGATE HEMS app has two major screen: "Solar Roof" screen and "HEMS" screen.

To switch these two screens, you can tap each tab button on the top of the screen.

[Solar Roof s	screen]	[HEMS scr	een]
Ŷ ă Ŷ <b>m</b>	🗅 🕅 ଲିଏ 🛙 11:27	Ŷ ≜ Ŷ ⊾	🗈 🛱 🗟 k 🛿 15:26
Solar Roof	HEMS	Solar Roof	HEMS •
Aug. 20, 2015 🗮	Update	Apr. 9, 2015 (1	hu.) Updat Tap
Now Generating	Saving model	Whole Household	29.3 Baht -20.1
		Living Air Conditio	oner 0.9 Baht -2.0
Now Consuming out of PV		Dining Air Conditi	oner <b>0.4</b> Baht -5.2
0.38 <sub>kw</sub>		Living TV	<b>0.5</b> Baht -3.0
Household Consuming	Buying	🤇 Bathroom	<b>3.4</b> Baht -1.2
Report of Today	(Aug 20, 2015)	Refrigerator	<b>0.0</b> Baht +0.0
Generated electricity	4.8 Baht -2.9	Whole House	hold
Generated electricity	1,036 Baht +206	Total consumption	10.83 kWh -10.35
Bought electricity	36.5 Baht -14.5	Electricity bill	29.3 Baht
Bought electricity of this month	614 Baht +52	CO2 emission	5.85 kg -5.59
Now Day	Month Year	Today Day	Month Year

### 5-1 Overview

#### [Saving Model]



### 5. Solar Roof screen

#### [PPA Model]

û û û û û û û û û û û û û û û û û û û	D இ 종⊮ 2 15:15 HEMS		
Apr. 9, 2015 (Thu Generating 0.47 kw Household Consuming Buy	J.) Update PPA model PPA model		<ul> <li><u>Generating</u></li> <li>Generation by solar roof (kW).</li> <li><u>Household Consuming</u></li> <li>Electricity consumption in your home (kW).</li> <li><u>Selling</u></li> <li>Sold electricity to the electric company (kW).</li> <li><u>Buying</u></li> <li>Bought electricity from the electric company (kW).</li> </ul>
Report of Today	(Apr. 9, 2015)		Generated electricity of today
Generated electricity of today	8.75 kWh +3.27		Today's accumulated generation by solar roof (kWh).
Baht saving	60.0 Baht +22.4	>	•Baht saving
Bought electricity of today	6.74 kWh -9.35		Bant conversion value of generation electricity (Bant).
Baht conversion	29.0 Baht -19.8	J	Today's accumulated electricity consumption(kWh).
Now Day	Month Year		•Baht conversion Baht conversion value of consumed electricity (Baht).

### Update button



### 5-2 Display Graph

To switch screen for Solar Roof, you can tap each tab button on the bottom of the screen.



#### Generated

(Day, Month, Year): Accumulated generation by solar roof (kWh).

#### Household Consumed

(Day, Month, Year): Accumulated electricity consumption for household (kWh).

#### Consumed out of PV

(Day, Month, Year): Accumulated consumption of electricity out of Solar Roof Generation (kWh).

#### Bought

(Day, Month, Year): Accumulated bought electricity from your electric company (kWh).

### 5-3 Switch the graph

To switch the graph, you can tap each row of the upper table.



### 5-4 Display on table / Display in detail

To display on table or display in detail, you can tap button on the middle of the screen.



ψ ≝ ψ	<u>da</u>			0 8 9	Rid 💈	17:06
Sola	r Roof			HE	MS	
Apr. 9,	2015			Today		O,
Gener	ated		3	0.5 Bah	t +1	1.8
Consur out of I	ned PV		1	<b>3.4</b> Bah	t -	3.9
House Consu	hold med		3	<b>7.1</b> Bah	t -3	7.2
Boug	ht		2	8.7 Bah	t -2	6.9
Data list	of the o	day			Data (G	raph
Time	Generated	Consu	med	Sold	Bo	m
0:00	0.000	e	.406	0.00	0	Tap
1:00	0.000	e	.353	0.00	0	0.353
2:00	0.000	e	.378	0.00	0	0.378
3:00	0.000	1	.045	0.00	0	1.045
4:00	0.000	1	.927	0.00	0	1.927
5:00	0.000	1	.642	0.00	0	1.642
6:00	0.062	e	.572	0.00	0	0.510
Now	Day	y	M	onth	Ye	ar

\$ ₩ ₩	-		D	😤 🖬 💈 17:06
Solar	Roof		Н	ems
Apr. 9, 2	2015		Today	
Genera	ited		<b>30.5</b> B	<sup>aht</sup> +11.8
Consum out of P	ed /		13 <b>.</b> 4 B	aht -3.9
Househ Consun	iold ned		<b>37.1</b> в	aht -37.2
Bough	t		<mark>28.7</mark> в	aht -26.9
For Gen	erated E	lec	tricity	Graph
Baht savir (self-cons	ng umed)		13.4в	aht Tar
CO2 redu	ction		4.26 kg	g +1.65
For Bou	ght Elec	tric	ity	
Baht conversio	on		<mark>28.7</mark> в	aht -26.9
CO2 emission			<b>3.61</b> kg	g -5.08
Now	Day		Month	Year

### 5-5 Change date to display data

3 ways to back dating Solar Roof screen display.







[3] Tap search date button. Choose date and then tap "Set" button.



### 6. HEMS screen

### 6-1 Overview



Υ = Υ ⊾ 		🛯 ିକାଧ୍ୟ 🚺 15:09								
Solar Roof		¢ ≜ ቑ ⊾	Dß	ີສຸ 🧙 👔 15:0	9					
Apr 9 2015 (Th		Solar Roof		\$ ● \$ ⊾		DE	າ 🗟 🕯 👔 🕅	09		
Whole Household	201	Apr. 9, 2015 (T	hu.)	Solar I	Roof		\$ ĕ \$ ⊾		D 🕅 🗟	ak 🛿 15:09
Living Air Condition	29.	Whole Household	20	Apr. 9, 20	015 (Th	u.)	Solar	Roof	HE/	NS
	101 0.1	Living Air Conditio	iner Q	Whole Ho	usehold	29.	Apr. 9, 2	015 (Th	u.) 🦲	Jpdate
	ap 0.4	Dining Air Conditio		Living Air	Conditione	er Q	Whole Ho	ousehold	<b>29.0</b> Baht	-19.4
Living TV	0.			Dining Air	Condition	or 0.	Living Air	Conditione	<b>г 09</b> Ваһt	-1.9
A Bathroom	3.		<b>ap</b> 0		condition	0.	Dining Ai	r Condition	er 0 1 Babt	-51
Refrigerator	0.	🤏 Bathroom 🛛 🥄	3.		- PL-	0.	Living TV		0.4 6	2.0
Living Air Cond	ditioner	Refrigerator	0.	Seathroom	<u> </u>	Tap 3.			0.5 Baht	-3.0
Consumption	0.20	Dining Air Cor	nditioner	Refrigerat	or		A Bathroon		3.1 Baht	-1.4
Baht conversion	0.9	Consumption	0.12	Living T\	/		Refrigera	tor		+0.0
CO2 emission	0.11	Baht conversion	0.4	Consumpti	on	0.13	Bathroc	om 🔪		
		CO2 emission	0.06	Baht conve	rsion	0.5	Consumpt	ion	0.55 kWh	-0.82
Today Day	Mon			CO2 emissi	on	0.07	Baht conve	ersion	<mark>3.1</mark> Bah	t -1.4
		Today Day	Mon				CO2 emiss	ion	<b>0.30</b> kg	-0.44
				Today	Day	Mon				
			•				Today	Day	Month	Year

### 6-2 Display Graph

To switch screen for HEMS, you can tap each tab button on the bottom of the screen.



### 6-3 Display on table / Display in detail

To display on table or display in detail, you can tap button on the middle of the screen.



<b>∛ ≜ ∜ ⊾</b>		<b>D</b> 8 (?	🕅 🛿 15:11
Solar Ro	of	HE	MS
Apr. 9, 2015	5	Today	Q
Whole House	nold	<b>29.0</b> Bah	-19.6
Living Air Con	ditione	r <b>0.9</b> Ваћ	-1.9
Dining Air Cor	nditione	er 0.4 Bah	-5.1
Living TV		0.5 Bah	-3.0
Whole Hous	eholo	k	Data ( Graph
Whole Hous	co	d nsumption(k	Data (Graph Wh)
Whole Hous	Col	nsumption(k)	Data (Graph Wh) Tap
Whole Hous Time 0:00 1:00 2:00		nsumption(k	Data, Graph Wh) 0.57 0.353
Time           0:00           1:00           2:00	Con	nsumption(k)	Data, Graph Wh) Tap 0.353 0.378 1.045
Time           0:00           1:00           2:00           3:00		nsumption(k	Data (Graph Wh) <b>Tap</b> 0.353 0.378 1.045
Time           0:00           1:00           2:00           3:00           4:00           5:00		nsumption(k <sup>1</sup>	Data, Graph Mh) <b>Tap</b> 0. 0.353 0.378 1.045 1.927 1.642
Time           0:00           1:00           2:00           3:00           4:00           5:00           6:00		nsumption(k	Data, Graph Mh) 0.353 0.353 0.378 1.045 1.927 1.642 0.572

\$ ● \$ ■	]	DØ	ຈີຟ 💈 15:11
Solar	Roof	HE	MS
Apr. 9, 2	015	Today	Q
Whole Ho	ousehold	<b>29.0</b> Bah	t -19.6
Living Air	Conditione	r 0.9 Bah	t -1.9
Dining Air	r Condition	er <b>0.4</b> Bah	t <mark>-5.1</mark>
Living TV		<b>0.5</b> Bah	t -3.0
Whole H	ousehol	d	Graph List
Whole H	ousehole	d 10.65 km	Graph List /h
Whole Hereit Total const	ousehold umption bill	d 10.65 km 29.0 Ba	Graph List /h _1. Tai ht _19.6
Whole Hereit Total const Electricity CO2 emiss	ousehold umption bill ion	d 10.65 km 29.0 Ba 5.75 kg	Graph List /h _1( Tap ht _19.6 _5.61
Whole Hereit CO2 emiss	ousehold umption bill ion	d 10.65 km 29.0 Ba 5.75 kg	Graph, List /h1( <b>Ta</b> ht19.6 5.61
Whole Hereit Construction Const	ousehold umption bill ion	d 10.65 km 29.0 Ba 5.75 kg	Graph: List /h1( Tai ht19.6 5.61

### 6-4 Change date to display data

3 ways to back dating Solar Roof screen display.



#### [2] Swipe on the graph



[3] Tap search date button. Choose date and then tap "Set" button.



### 6-5 Confirm current consumption

Light bulb mark shows the appliance is turned "ON".

Bath	v   v   v   v   v   v   v   v   v   v	D @ 奈山 2 15:09 HEMS	
	Apr. 9, 2015 (Thu.) Update		
	Whole Household	<b>29.0</b> Baht -19.4	
	Living Air Condition	ner 0.9 <sub>Baht</sub> -1.9	
	Dining Air Conditio	ner <b>0.4</b> Baht -5.1	At "Initial Setting" screen, you can set the threshold whether
	Living TV	0.5 Baht -3.0	the light bulb mark is
	Sathroom	3.1 Baht -1.4	displayed or not.
	Refrigerator	<b>0.0</b> Baht +0.0	Standby Consumption 20 W
	Whole Household		
	Total consumption	10.65 kWh -10.36	
	Electricity bill	29.0 Baht19.4	
	CO2 emission	5.75 kg -5.59	
	Today Day	Month Year	

To check current consumption of each appliance, please press the circled area for 3 seconds as below.

T

<b>† ⊕ † </b>	🗅 🕅 🛜 🖬 🖻 15:09
Solar Roof	HEMS
pr. 9, 2015 (Thu.	) Update
Whole Household	<b>29.0</b> Baht -19.4
Living Air Conditioner	<b>0.9</b> Baht -1.9
Dining Air Conditioner	<b>0.4</b> Baht -5.1
Living TV	0.5 Baht -3.0
Bathroom	3.1 Baht -1.4
Refrigerator	0.0 Baht +0.0
	10 65 kWb 10 26
Electricity bill	29.0 Baht -19.4
CO2 emission	75 kg -5.59
Today Day	Month Voor
	Montin Tear

Press 3 seconds

### 6-6 Set monthly target consumption for saving energy

To display total consumption and monthly target consumption on the graph screen, you can set the monthly target value on the "Device setting" screen.

Tap device setting button on the HEMS screen. After set "Monthly target value", tap "OK" button.



### 7. Displaying the HEMS report

This HEMS app can display HEMS monthly report on your smart phone.





[2] If Login screen is displayed, you could type "Product No." of your SGW and "Security Password" and then tap "Login" button.



### Q1. All the HEMS numerical data show "0.00kW" or " kW"

A1. This data measured by HEMS sensors had not reached the server.

•Confirm the SGW is in operation as the picture below shows.



-in case the SGW is not operated when correctly connected to the outlet via AC adaptor, plug off and reconnect the SGW.

-Confirm your internet router is in operational status.

### Q2. Display an error message when you push "Update" button

**A2.** If you push the "Update" button on the top right side of "Solar Roof" main display, you might check the internet connection of your smart phone and confirm the initial settings of this application.

•When No. E-016 error message is displayed, you should might want to check the internet connection of your smart phone.



When No. E-019 error message is displayed, you should confirm the initial settings of this application.



### Q2. Display an error message when you push "Update" button

• After confirmation of the internet connection and initial settings, you push "Update" button again and check the display of this application.

<b>b</b>		💶 🛯 🖓 🖘 📘 16:34		
Solar	Roof	HEMS		
Apr. 13, 2015 (Mon.)				
Now Gene Consum Now Consum Out of 0.77 Now House 0.77	rating 73 kw ing 73 kw ing 74 kw ing 75 kw ing 10 kw in 10 kw in 10 kw i 10 k i 10 k i k i 10 k i k i k i k i k i ka		Euying 0.00 kw	
Report of Today (Apr. 13, 2015)				
Generated of today	electricity	44.2 Baht +1.2		
Generated of this mor	electricity hth	631 Baht +0		
Bought electricityQO Baht115Image: General ControlImage: General Control<				
Now	Day	Month	Year	

Manufactured by:

### ENEGATE Co., Ltd.

Address:3-14-40, Senrioka, Settsu-Shi, Osaka 566-8686, JapanURL:http://www.enegate.co.jp

#### Distributed by:

### ENEGATE (THAILAND) Co., Ltd.

Address:	Moo2, Soi Preakasa, Putharaksa Rd. T. Taibanmai,			
	A. Muangsamutprakam, Smutprakam Province 10280, Thailand			
e-Mail Address	customer-service@enegate.th.com			
URL:	http://www.enegatethailand.com			

Distributed by:

### Solar Power Roof Co., Ltd. (SPR)