Data collection in Cambodia:
where are we now, and where are we going?

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EAC's duties in data collection

- To review the financial activities which affect the operation of the power sector and the efficiency of electricity supply;
- To approve and enforce a uniform system of accounts for all licensees;
- To prepare and publish reports of power sector for the benefit of the Government and the public interest
- To evaluate and resolve consumer complaints and contract disputes involving licensees

What data we collect

To comply with EAC regulation, Licensees have to submit the following reports EAC :

1. Operation summary report : quarterly (submit no later than 10 days after each quarter)
2. Financial activities report : annually (submit before 31 March)
3. Next year grid extension and power consumption plan
4. Report within context of the performance standard(Not yet implemented by EAC)

What data we collect (cont)

1. **Operation summary report: quarterly (submit no later than 10 days after each quarter)**
   - Generation facilities (Install capacity)
   - Energy Generated
   - Distribution facilities
   - Energy sold to consumer or other licensees
   - Energy purchased
   - Updated electrified village in License Zone

What data we collect (cont)

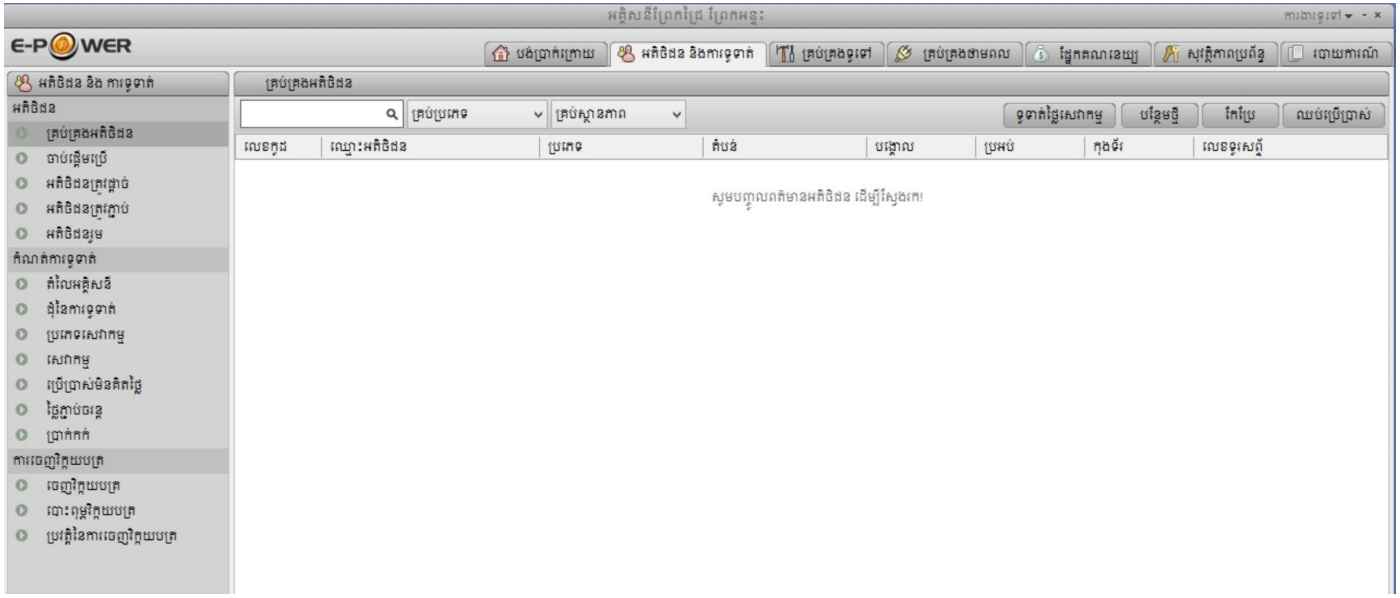
2. **Financial activities report: annually (submit before 31 March of next year)**
   - Energy generation and cost
   - Energy purchase and cost
   - Energy sold and revenue
   - Administration cost
   - System maintenance cost
   - Operation cost
   - Loan information
   - Fixed Asset and depreciation

What are obstacles in data collection

- Limitation of licensee's knowledge to prepare all reports
- Licensees can not effort to hire staffs who accountable for reporting
- Licensees have to send report in hard copy to EAC office
- Licensees mean to hide some data
  - Make up the figure of system loss in order to pay less income tax
  - Rewrite data to satisfy EAC

How we enforce a uniform system

- In 2011, we cooperated with a local software company to deploy a unified Billing system to all licensees
- In 2012, add operation summary report feature to the system
- In 2014 and 2015, add financial activities report feature
- 90% of all licensees using this system


E-POWER
ទ្រង់ទ្រាយ
ការងារ
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អគ្គិសនី ផ្សារកំពង់ជ្រៃ

ផ្សារ កំពង់ជ្រៃ ភូមិ កំពង់ជ្រៃ ឃុំ ស្មោង ស្រុក ទ្រាំង ខេត្ត តាកែវ

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អតិថិជន 000027

សំ ណៃ

ភូមិកំពង់ជ្រៃ ឃុំស្មោង

ថ្ងៃចាប់ផ្តើមទទួលប្រាក់ : 31-07-2015

លេខវិក្កយបត្រ INVOICE	**INV1507-000064**
ថ្ងៃចេញ INVOICE DATE	31-07-2015
តំបន់ AREA	AA
លេខប្រអប់ BOX NO	**AA004A**
គិតចាប់ពីថ្ងៃទី FROM	01-07-2015
ដល់ថ្ងៃទី TO	31-07-2015
កំលាំង AMPARE	10A

លេខកុងទ័រ METER	អំណានចាស់ PREVIOUS	អំណានថ្មី CURRENT	មេគុណ MULTIPLY	ចាមពល CONSUMPTION	តំលៃឯកត្តា RATE	តំលៃសរុប AMOUNT
				ប្រាក់ជំពាក់ពេលមុន Balance brought forward .	៛	69,150
28-07-2015				*ប្រាក់បានទទួល Payment Receive - THANK YOU .*	៛	10,000
				ជំពាក់សរុបនៅថ្ងៃធ្វើវិក្កយបត្រ Balance as at billing date .	៛	59,150
11204078	1208	1251	1	43		
	0	43		43	950 ៛	40,850

ប្រវត្តិនៃការប្រើប្រាស់អគ្គិសនីក្នុងឆ្នាំ 2014 ៖

-ការប្រើប្រាស់ ៖ ច្រើនបំផុត 57គីវម៉ា, តិចបំផុត 18គីវម៉ា, មធ្យមប្រចាំឆ្នាំ 32គីវម៉ា

-ការប្រើប្រាស់ក្នុងខែក្តៅ ៖ មិនា 18គីវម៉ា, មេសា 49គីវម៉ា, ឧសភា 50គីវម៉ា, មិថុនា 38គីវម៉ា

	សរុប TOTAL BALANCE	៛ 100,000
	ប្រាក់ត្រូវបង់ TOTAL DUE	៛ **100,000**
	ថ្ងៃផុតកំណត់ DUE DATE	07-08-2015
	ថ្ងៃបង់ប្រាក់ PAY DATE	
	ប្រាក់បានបង់ PAY AMOUNT	

ចំណាំ

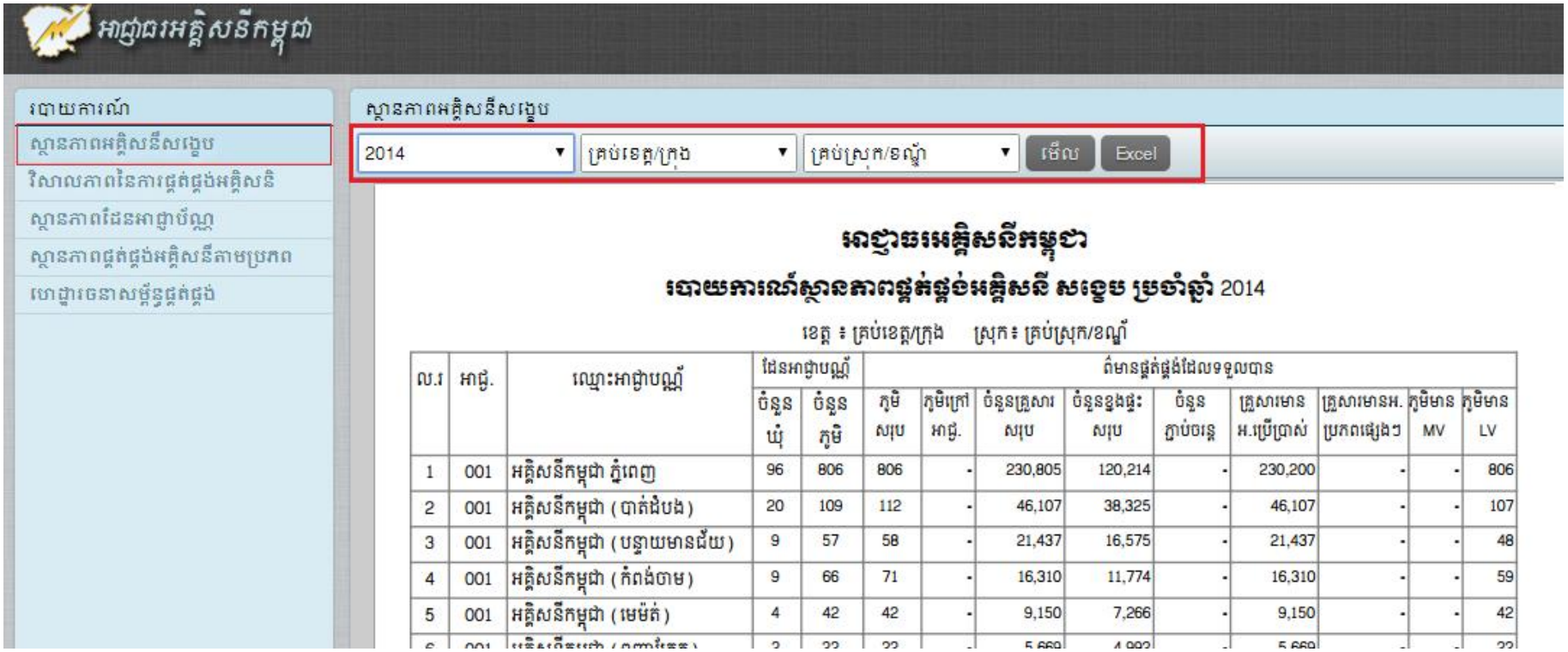
* ចូសកំណត់ពេលបង់ប្រាក់ដែលបានកំណត់នេះ ក្នុងករណីអតិថិជនពុំបានមកបង់ប្រាក់ក្រុមហ៊ុននិងផ្អាកការប្រើប្រាស់។
* ការភ្ជាប់ចរន្តជូនវិញ លុះត្រាតែអតិថិជនបានទូទាត់ចំណុលសរុបក្នុងវិក្កយបត្រនេះ និងសេវាភ្ជាប់ចរន្តរួចហើយ។
* សូមអញ្ជើញមកបង់ប្រាក់ផ្ទាល់នៅការិយាល័យបង់ប្រាក់របស់ក្រុមហ៊ុន។

		ប្រាក់ត្រូវបង់ TOTAL DUE	៛ 100,000
		ថ្ងៃបង់ប្រាក់ PAY DATE	
		ប្រាក់បានបង់ PAY AMOUNT	
		អ្នកទទួលប្រាក់ RECEIVER	

វិក្កយបត្រ	ខែ 07 ឆ្នាំ 2015 - INV1507-000064
អតិថិជន	000027 សំ ណៃ ភូមិកំពង់ជ្រៃ ឃុំស្មោង
លេខប្រអប់	**AA004A**
លេខកុងទ័រ	**11204078**

How we manage data from licensees

- In 2013, we build an internal database system to handle data collected from licensees

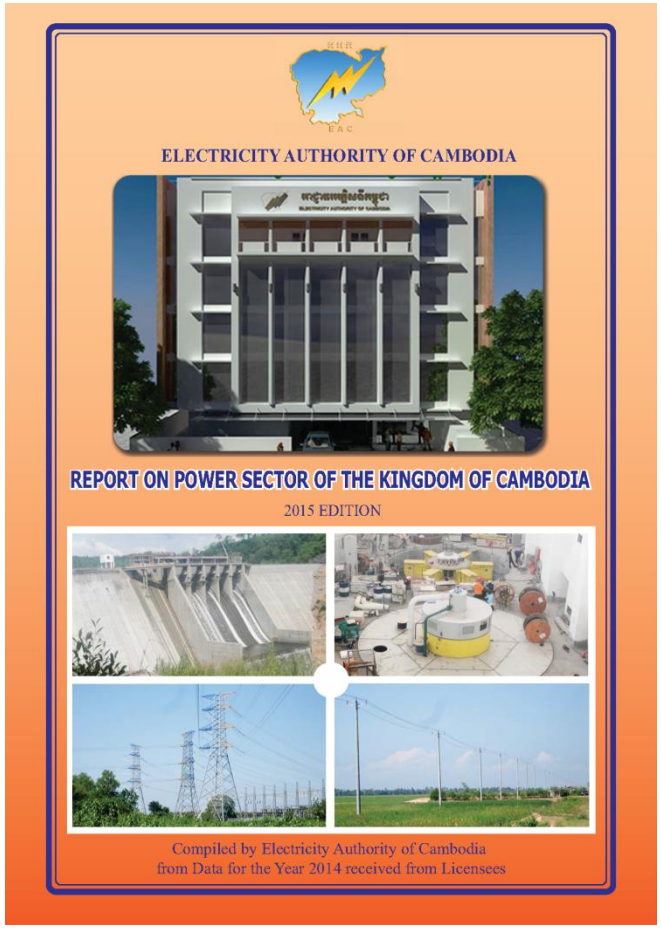


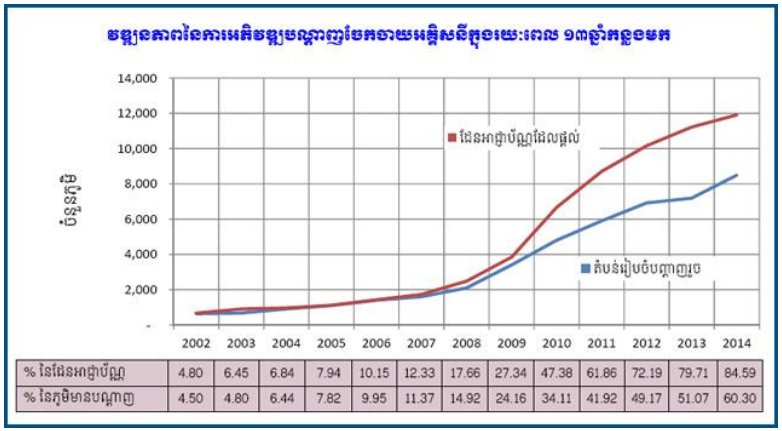
ល.រ	អាជ្ញ.	ឈ្មោះអាជ្ញាបណ្ណ	ដែនអាជ្ញាបណ្ណ		ព័ត៌មានផ្គត់ផ្គង់ដែលទទួលបាន								
			ចំនួនឃុំ	ចំនួនភូមិ	ភូមិសរុប	ភូមិក្រៅអាជ្ញ.	ចំនួនគ្រួសារសរុប	ចំនួនខ្នងផ្ទះសរុប	ចំនួនភ្ជាប់ចរន្ត	គ្រួសារមាន អ.ប្រើប្រាស់	គ្រួសារមានអ. ប្រភពផ្សេងៗ	ភូមិមាន MV	ភូមិមាន LV
1	001	អគ្គិសនីកម្ពុជា ភ្នំពេញ	96	806	806	-	230,805	120,214	-	230,200	-	-	806
2	001	អគ្គិសនីកម្ពុជា (បាត់ដំបង)	20	109	112	-	46,107	38,325	-	46,107	-	-	107
3	001	អគ្គិសនីកម្ពុជា (បន្ទាយមានជ័យ)	9	57	58	-	21,437	16,575	-	21,437	-	-	48
4	001	អគ្គិសនីកម្ពុជា (កំពង់ចាម)	9	66	71	-	16,310	11,774	-	16,310	-	-	59
5	001	អគ្គិសនីកម្ពុជា (មេម៉ត់)	4	42	42	-	9,150	7,266	-	9,150	-	-	42

What are outputs of those data

- Annual power sector report of Cambodia
- To monitor the progress with government strategic goal
  - all villages have access to electricity of any type by the year 2020
  - at least 70 % of all households have access to grid quality electricity by the year 2030
- As Result
  - Nearly 65% of all villages have access to electricity
  - 48% of all households have access to electricity

What are outputs of those data





	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
% នៃផ្ទះដែលមានភ្លើងប្រើ	4.80	6.45	6.84	7.94	10.15	12.33	17.66	27.34	47.38	61.86	72.19	79.71	84.59
% នៃភូមិមានបណ្តាញ	4.50	4.80	6.44	7.82	9.95	11.37	14.92	24.16	34.11	41.92	49.17	51.07	60.30

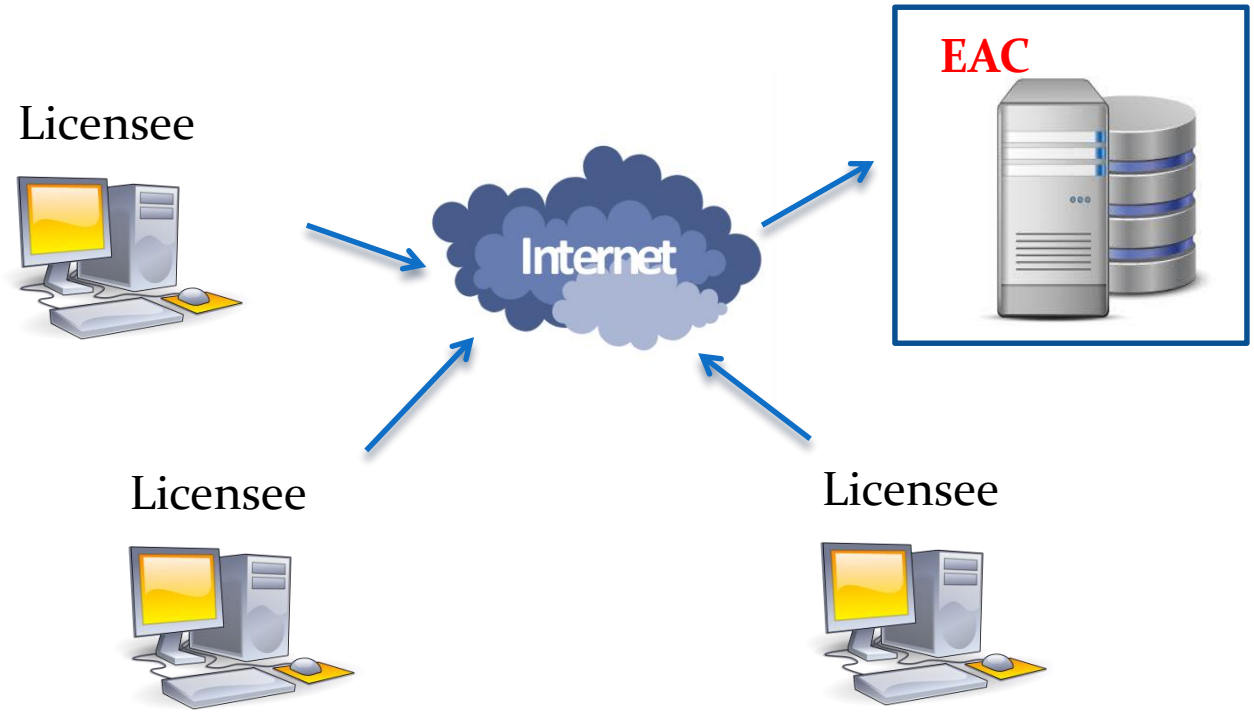
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
អនុភាព (MW)	180	205	208	231	325	419	490	579	584	793	825	1,020	1,359
ថាមពល (លាន kWh)	614	693	814	977	1,203	1,517	1,858	2,077	2,515	2,788	3,527	4,051	4,873

What might happen in the future

- Add modules in context of the performance standard on the existing system
  - System for licensees
  - EAC's Internal system

- Integrate all licensee system with EAC internal system In order to collect data online

Integrate all licensee's system with EAC internal system



Penalties for refusal to cooperate

- Reject due to the request of license zone extension
- Reject or reduce some license term when licensee request
- Subsidy for only licensees that provide sufficient fixed asset record (Tariff uniform policy)

Thank you