

Energy Investment Forum

December 4, 2014



ATTY. FRANCISCO S. VILLA, JR.

DIRECTOR, PLANNING AND INFORMATION SERVICE ENERGY REGULATORY COMMISSION



Vision and Mission

VISION:

Ensuring progress through exemplary power regulation.



MISSION:

A technically competent and professional ERC committed, through the exercise of its regulatory authority, to be the driving force in the transformation of the electric power industry in ensuring reasonable electricity rates, enhancing market competition, promoting long-term consumer interest,

and assuring that electricity industry participants provide and maintain safe, adequate, reliable, and efficient electric service.

2014 Budget



The Energy Regulatory Framework - Concepts





Sec. 38 of EPIRA

"There is hereby created an independent, quasi-judicial regulatory body to be named the Energy Regulatory Commission (ERC)."

THE FIVE MAJOR FUNCTIONS



Promote competition

Monitor the Market

Encourage market development

Ensure customer choice

Penalize abuse of market power

MOST ESPECIALLY:



EPIRA – RA 9136

Sec. 41. Promotion of Consumer Interests. – The ERC shall handle consumer complaints and ensure the adequate promotion of consumer interests

MAJOR TASKS 23:



Generation

- Certificate of Compliance
- Generation tariffs (Captive Bilateral PSA & RE LAW FiT)
- SPUG (Missionary Electrification)
- WESM monitoring
- Competition Rules

Supply

- Suppliers' licenses
- Issuance of needed rules for retail competition
- Declaration of open access and retail competition

Transmission

- Tariffs of NGCP TRANSCO
- Philippine Grid Code
- CAPEX plans
- Ancillary services

Distribution

- Tariffs of distribution utilities
- Philippine Distribution Code
- Lifeline rate
- Franchise for consortium of subtransmission assets
- Stranded contract cost

- Systems loss
- CPCN
- Spot inspections/ audits
- Bilateral power supply contracts
- CAPEX plans
- Magna Carta and DSOAR enforcement
- *Loan Condonation

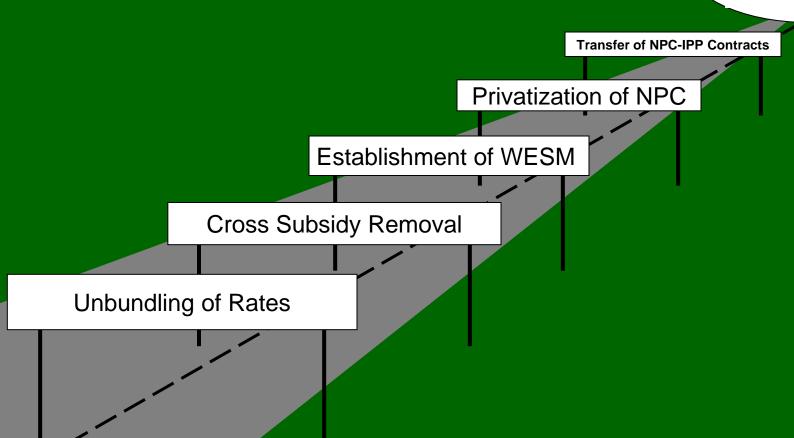
Competitive

Natural Monopolies

The Journey



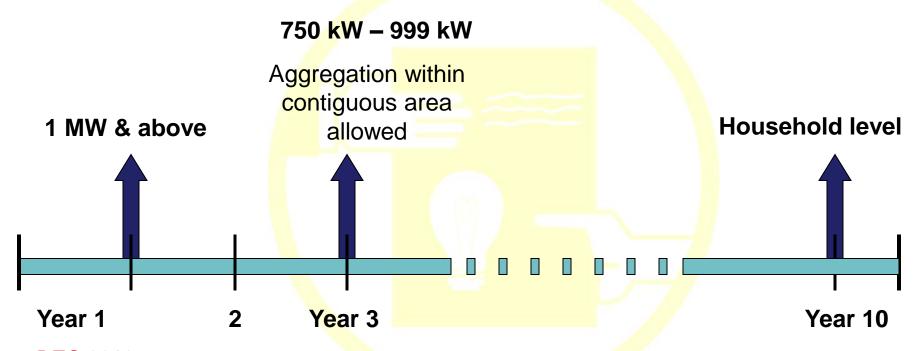
Open Access and Retail Competition



Retail Competition Timeline **E**







DEC 2012

Transition period (26 December 2012 – 25 June 2013)

Initial commercial operations (26 June 2013 – 25 December 2013)



Basic Concepts on Power Supply Agreements (PSA)





What is a Power Supply Agreement (PSA)?



A PSA is a bilateral agreement between a Generation Company (GenCo) and a Distribution Utility (DU) for the purchase and supply of power.



Why does the ERC need to review and approve PSAs?

Section 25, Chapter 2 of the Republic Act No. 9136 or the Electric Power Industry Reform Act of 2001 (EPIRA) states that:

RETAIL RATE. The retail rates charged by distribution utilities for the supply of electricity in their captive market shall be subject to regulation by the ERC based on the *principle of full recovery of prudent and reasonable economic costs incurred*, or such other principles that will promote efficiency as may be determined by the ERC.

GENERATION CHARGE





- Biggest component of the retail rate (around 40% to 60%)
- Through the generation charge, the DUs recover their generation costs associated with their energy purchases from:

A	PSALM/NPC (under duly approved TSCs)	NPC TOU Rate
В	IPPs (under duly approved PSAs)	ERC-approved Contract Rate
С	WESM	Spot Market Rate

Power Generation Sources





Oil-based 18%



Coal 33%



Hydro 21%



Renewable 0.1%



Geothermal 11%



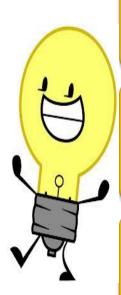
Natural Gas 16.9%

RATE STRUCTURE REVIEW





What does the ERC look into in its PSA review and approval process?



Capacity Fee/Capital Recovery Fee

Fixed Cost

Operations & Maintenance Fee

Fixed O&M

Variable O&M

Fuel Recovery Fee/Energy Fee

Variable Cost

GENERATION RATE STRUCTURE







Capacity Fee/Capital Recovery Fee

Fixed Cost

- Cost for the recovery of capital or investment incurred in putting up the power plant
- Fixed for the duration of the project life/plant economic life

GENERATION RATE STRUCTURE







Operations & Maintenance Fee

Fixed
O&M
Variable
O&M

- Costs involved in operating and maintaining a utility plant and in the provision of utility service; and
- Operating outlays consist mainly of costs for purchased power, fuel, wages, applicable taxes, maintenance, supplies, and other necessary expenditures.

GENERATION RATE STRUCTURE







Variable Cost

- Pass-through cost to allow recovery of fuel consumed to generate power
- Cost also depends on the plant heat rate

GENERATION RATE APPROVAL



Republic of the Philippines ENERGY REGULATORY COMMISSION San Miguel Avenue, Pasig City

IN THE MATTER OF THE APPLICATION FOR THE APPROVAL OF THE POWER SALES AGREEMENT, AS AMENDED, AMONG SOUTH COTABATO IN ELECTRIC COOPERATIVE, INC. (SOCOTECO II), CONAL HOLDINGS CORPORATION AND SARANGANI ENERGY CORPORATION

SOUTH COTABATO II ELECTRIC COOPERATIVE, INC. (SOCOTECO II) AND SARANGANI ENERGY CORPORATION (SEC),

Applicants.

ERC CASE NO. 2011-138 RC

DOCKBTHD Date: AUG 0 1 2012

DECISION

Before the Commission for resolution is the joint application filed on October 7, 2011 by South Cotabato II Electric Cooperative, Inc. (SOCOTECO II) and Sarangani Energy Corporation (SEC) for the approval of their Power Sales Agreement (PSA).

In the said joint application, SOCOTECO II and SEC alleged, among others, the following:

1. SOCOTECO II is a non-stock, non-profit electric cooperative organized and existing under and by virtue of Presidential Decree No. 269, as amended, with office address at J. Catolico Avenue, Lagao, General Santos City. It has a franchise to distribute electricity in the City of General Santos, in the Municipalities of Alabel, Glan, Kiamba, Maasim, Maitum, Malapatan and Malungon, all in the Province of Sarangani, and in the Municipalities of Polomolok and Tupi, both in the Province of South Cotabato (Franchise Area).

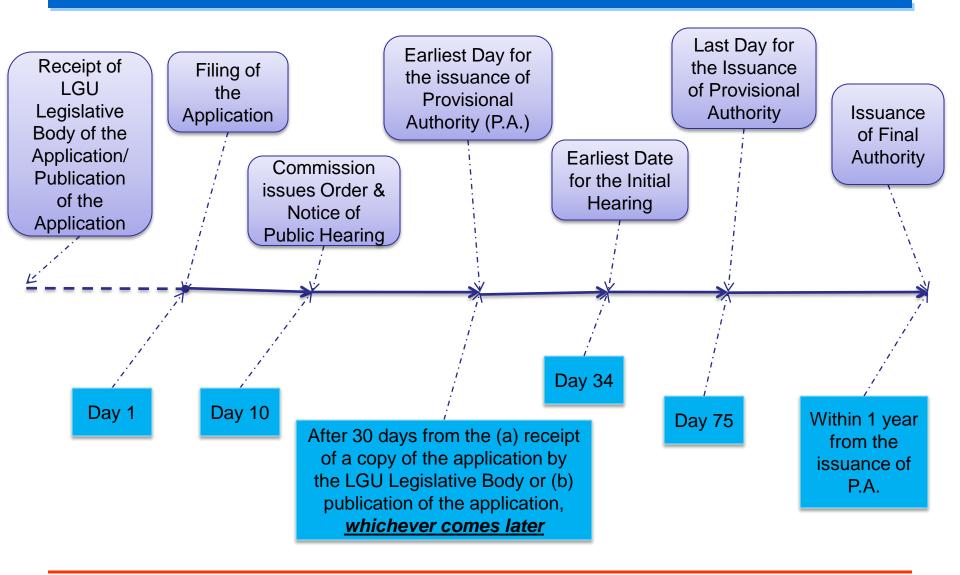
Steps:

Provisional Approval

2. Final Approval

PROCEDURE FOR THE APPLICATION OF PSA





Status of the PSA Rules



Public Consultations were held on the following dates:

DATE	VENUE
February 18, 2014 (Tuesday)	University of Mindanao, Matina Campus, Davao City
February 20, 2014 (Thursday)	Social Hall, Cebu Provincial Capitol, Cebu City
February 24, 2014 (Monday)	ERC Hearing Room, 15 th Floor, Pacific Center Building, San Miguel Avenue, Pasig City

Status of PSA Rules



Focus Group Discussions were held on the following dates:

Date	Venue
April 22-24, 2014	ERC Hearing Room, Pasig City
May 6-8, 2014	NEDA Region 7 Office, Cebu City
May 13-14, 2014	Grand Caprice, Limketkai Center, Cagayan de Oro City
May 20-22, 2014	ERC Hearing Room, Pasig City

As of date, revision of the PSA draft rules is still ongoing.



COC GUIDELINES (AN UPDATE) 07 November 2014

Points of Discussion



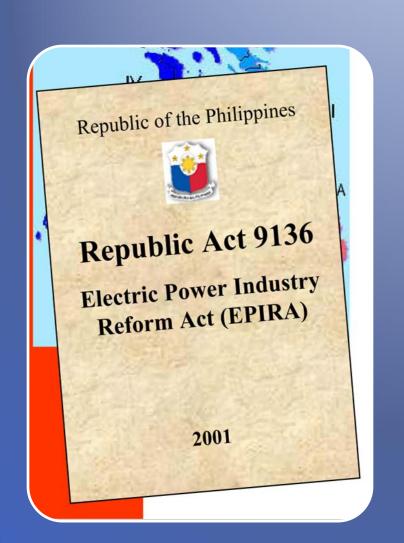


Guiding Principles

Requirements And Procedures

Compliance And Reportorial Requirements

Legal Mandate



Section 6. Generation Sector

Section 4(a), Rule 5 of the IRR of the EPIRA

2014 Revised COC Guidelines



15 September 2014-

Approval of the 2014
Revised Rules for the
Issuance of Certificate of
Compliance (COC) to the
Generation Companies,
Qualified End-users and
Entities with SelfGeneration Facilities
(2014 Revised COC Rules)

17 October 2014-

Publication

No person (includes QEs) may engage in Electricity Generation without COC

COC shall be in the name of the owner of the facilities

- Facilities covered by NPC-IPP Contracts:
 - COC deemed issued to IPP

Facilities operated by an entity other than the owner

ERC to determine in whose name the COC shall be issued

Modular Generating Facilities located in a contiguous area

A COC shall be issued for each generating unit

COC shall be secured before commercial operation

GenCo may conduct Commissioning for 2 months even without COC

Genco to notify ERC the actual test and commissioning 30 days before actual test commissioning

COC shall stipulate all GenCo obligations

- COC terms and conditions
- Technical description (Pmin, Pmax, Ramp-up/down and heat rate)

COC issued to Gencos shall include all generation facilities

Power Barge shall be issued a single COC

Generation facilities shall be issued individual COC if installed and commissioned within a span of 24 months

Consolidated COC shall be issued after the inspection of the last unit of the facilities

Indicate intent to to apply for COC to avail of FIT

Entitled to FIT only upon issuance of a FIT-Eigiible COC

No COE-Fit Eligibility by DOE= No FIT eligible COC

Indicate date of FIT entitlement to commence on date of commercial operations on COC

Genco operating an RE plant after RE Law but before FIT System not bound under by supply contract entitled to FIT

Fit entitlement: 20 years less the period of commercial operation

RE plant operating before RE Law may be granted FIT upon application and hearing

QEs installing on-site generation facilities and enters into NMA with its DU to secure COC

Renewable Energy



Requirements and Procedures

Section 2.

 Documents/Information Required for New Applications

Section 3.

 Documents/Information Required for COC Renewal

Section 4.

When To File

Not later than three (3)
months before the
targeted date of
Commissioning of the
facilities

QE COC to be filed by DU prior to NetMetering implementation

Requirements and Procedures =



60 days from technical inspection

Notification from ERC of its action

60 days reckoning period

In the event of additional information

Within the 60-day period

 Deemed approved if applicant has not been issued provided it has complied with all the requirements

6 months prior to expiration

• Renewal



Requirements and Procedures

Section 7. Ocular Technical Inspection

For New Gencos/ Facilities:

- Conducted by ERC
- -On or during the Commissioning of the facilities
 - Prior to the Commercial operation

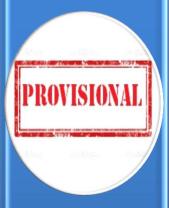
All Gencos/ Facilities:

-At least twice
 (2x) during the
 five (5) year term
 of the COC

May be waived due to the ff:

- force majeure;
- safety and security concerns;
 and
- other conditions that the ERC may deem fit.

Requirements and Procedures



For pending

COC application: a PAO may be issued

to operate the generation facilities for six (6) months included in the 5year COC `term



Due to failure to submit the following requirements:

1. DOE-MOA;

2. TSA, MSA & CA with NGCP or DU for embedded generator; and

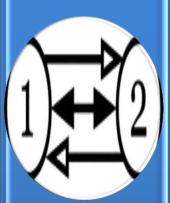
3. PTO from DENR.



In lieu thereof:
Submit an
affidavit or other
supporting
document that it
filed or pending
with DOE, DENR,
NGCP and/or DU



COC – 5 years



QE-COC – coterminus with the Net-Metering Agreement with the DU

Section 3. Provisional Authority to Operate

Required Compliance

Government Permits, Licenses

- DENR ECC
- DENR PTO
- SEC Certificate of Registration
- DOE Certificate of Endorsement that the Generation Facilities is in accordance with the PDP
- DOE Certificate of Confirmation of Commerciality
- DOE Certificate of 80% Electromechanical Completion
- DOE COE for FIT Eligibility

Cross-ownership and Market Share Limitation

<30% of the installed generating capacity in a Grid and <25% of the installed generating capacity
in the national grid

Financial Standards

- Guidelines for the Financial Standards of Generation Companies
- Includes generation facilities connected to the Grid administered by a PSALM appointed IPPA administrators
- 1.5x Debt Service Capability Ratio (DSCR)

Technical Standards

- PGC, PDC, PEC and system requirements of TRANSCO or NGCP
- Generation Company which develops, owns or operates point to point limited transmission or distribution facilities for purposes of connection to the transmission or distribution system
- Authorization by ERC

Reportorial Requirements (Annual)

Company General Information Sheet

- Maximum Capacity per Unit
- Stockholders
- Generation Facilities Co-owners
- Directors and Officers
- Holding Companies
- Generation Facilities to be connected to the Grid

Generation Company Management Report

- Capacity Utilization
- Electricity Dispatch and Sales Volume for the Year
- Downtimes (PMS, forced outages)
- Energy Revenues for the Year
- Technical Requirements (Pmin, Pmax, Ramp up and Ramp down rate and Heat Rate, if applicable.

Audited Financial Statements

- Statement of Income
- Balance Sheet
- Statement of Cash Flows

Requirements and Procedures

Section 2.

 Documents/Information Required for New Applications

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When To File

Not later than three (3)
months before the
targeted date of
Commissioning of the
facilities

QE COC to be filed by DU prior to NetMetering implementation

Documents/Information Required – IPPs =



	New	Renewal
1	General Requirements (Application Form – Form 1 and Company Profile – Form 2)	General Requirements (Application Form – Form 1 and Company Profile – Form 2 plus 5-year operational history – Form 3)
2	Technical Qualification ✓ Sworn Statements on compliances with the PGC, PDC, WESM Rules and Manuals Requirements ✓ Management/Lease Contracts ✓ General Plant Description; ✓ Location Map; ✓ CAs with Grid Owner ✓ PGC, PDC and WESM Requirements (Electrical/mechanical plans and diagrams, plant specifications, technical description, details of communication and SCADA, GIS, DIS, FS, CA and TSA;	 Technical Qualification ✓ Sworn Statements on compliances with PGC, PDC, WESM Rules and Manuals Requirements ✓ General Plant Descriptions, if there are any ✓ Report on the conduct of capability test if there is an addition, replacement or repowering of units
3	Financial Capability ✓ AFS of 2 most recent 12 month periods ✓ Schedule of Liabilities ✓ five year financial plan	Financial Capability ✓ Updated schedule of liabilities to include name of creditors, type of credit, credit terms and applicable interest; ✓ 5-year financial plan

Documents/Information Required - IPPs (cont.

wards a brighter future

	New	Renergy regulatory commission • PHILIPPIN
4	Ownership/Control - ✓ Articles of Incorporation/Partnership with Certificate of Registration, ✓ latest GIS from SEC, ✓ complete listing of Affiliates and Related Groups including ownership and management structure, ✓ PSE Certificate to the effect that the GenCo is listed with the PSE, if applicable) ✓ Sworn statement on compliance with cross- ownership and market share restrictions	Ownership/Control ✓ Articles of Incorporation/Partnership with Certificate of Registration, if there are any changes ✓ latest GIS from SEC, if there are any changes ✓ complete listing of Affiliates and Related Groups including ownership and management structure, ✓ PSE Certificate to the effect that the GenCo is listed with the PSE, if applicable)
5	Other Requirements ✓ (PSA, ✓ DOE-MOA in compliance with ER 1-94, ECC, ✓ DOE Endorsement indicating consistent with PDP or MEDP for projects in isolated grids ✓ For GenCo operating an RE plant which intends to avail of FIT, DOE issued: Certificate of Confirmation Commerciality Confirmation of Electromechanical Completion; and COE for FIT Eligibility ✓ Such other documents or information that the ERC may require	Other Requirements ✓ PSA, ✓ Latest PTO ✓ Such other information or documents that the ERC may require

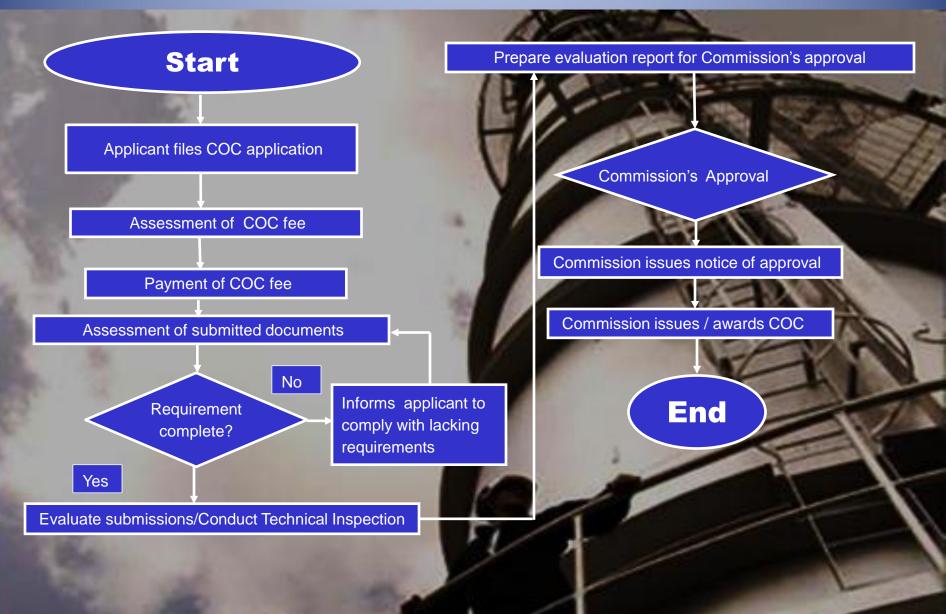
Documents/Information Required – QEs



		ENERGY REGULATORY COMMISSION • PHILIPP
	New	Renewal
1	General Requirements -	General Requirements -
137	Application Form (Form 1) and	Application Form (Form 1) and
	Company Profile (Company	Company Profile (Company
	Profile)	Profile)
2	DU Certification that QE is	DU Certification that QE is
	technically compliant with the	technically compliant with the
	Net-Metering Interconnection	Net-Metering Interconnection
	Standards	Standards, should there be any
		changes
3	Net-Metering Agreement	Net-Metering Agreement, should
		there be any changes
4	Other Documents that the ERC	Other Documents that the ERC
	may require	may require

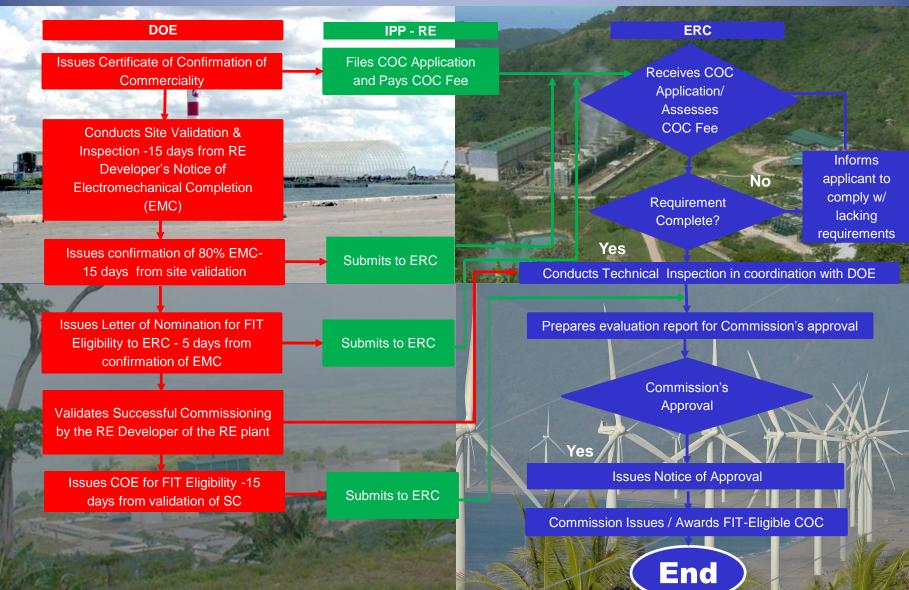
Regular COC Flowchart





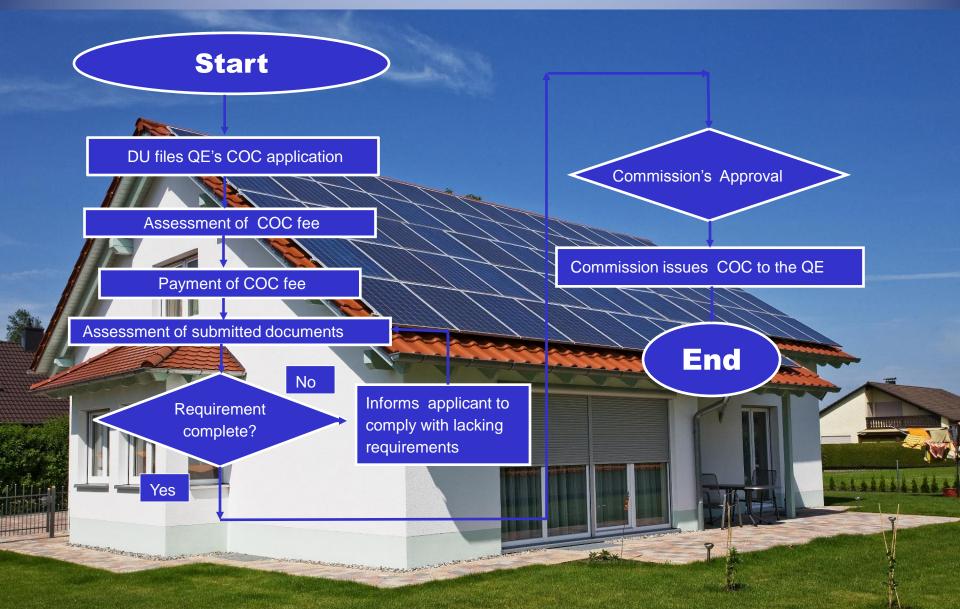
FIT-Eligible COC Flowchart





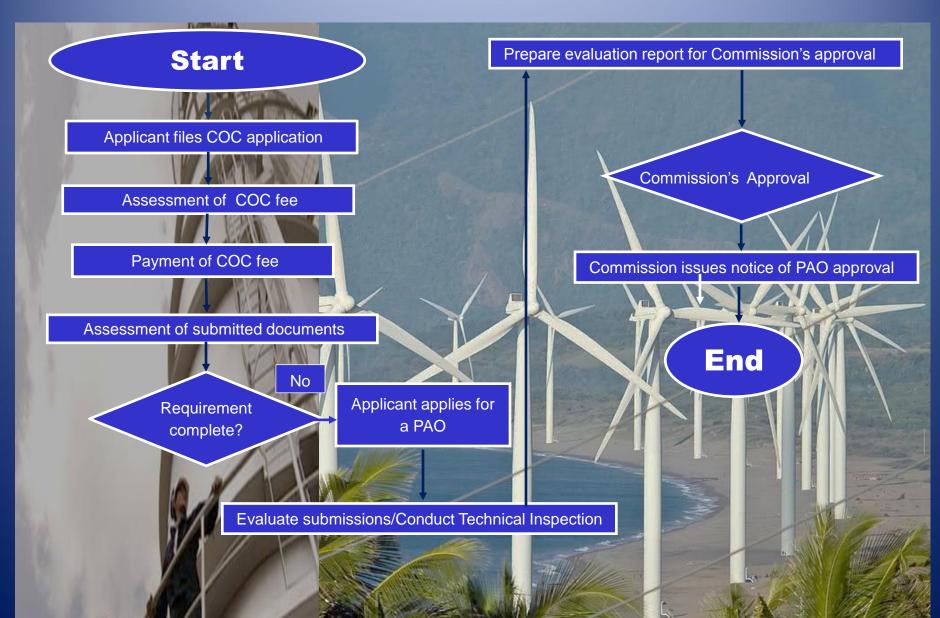
QE-COC Flowchart





Provisional COC Flowchart





COC Fees



Aggregate Installed Capacity	Fees (PhP)
For Self Generation Facility (SGF)	
100 KW and below	1,500.00
101 – 500 KW	5,000.00
501 – 999 KW	7,500.00
1 MW and above	10,000.00
For GENCO regardless of Installed Capacity	10,000.00





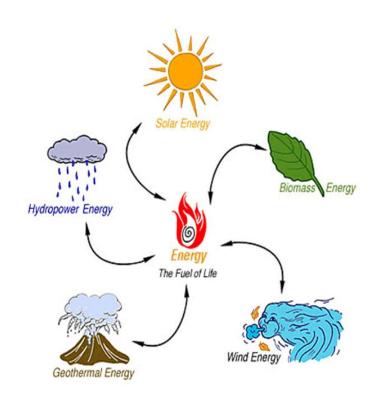


Philippine Feed-In Tariff System Implementation

Renewable Energy Act of 2008



Republic Act No. 9513



An Act Promoting the Development, Utilization and Commercialization of Renewable Energy Resources and For Other Purposes

December 16, 2008

Renewable Energy Act of 2008



- On-Grid Renewable Energy Development
 - Renewable Portfolio Standards
 - ☐ Feed-In Tariff System
 - ☐ Renewable Energy Market
 - ☐ Green Energy Option
 - Net-metering for Renewable Energy
- Off-Grid Renewable Energy Development
 - Minimum RE generation capacities

Renewable Portfolio Standards



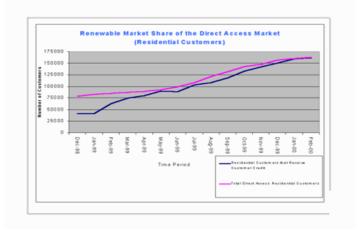
- □ Defined as "a market-based policy that requires electricity suppliers to source an agreed portion of their energy supply from eligible RE resources"
- ☐ The NREB shall set:
 - ■Minimum percentage of generation from eligible renewable energy resources
 - ■Which sector RPS shall be imposed on a per grid basis



Renewable Energy Market (REM)



- The DOE shall establish the REM
- □ Direct PEMC to implement changes to the WESM rules in order to incorporate the rules specific to the operation of the REM under the WESM
- □ PEMC, under DOE supervision, establish a Renewable Energy Registrar
 - ☐ Issue, keep and verify RE Certificates



*Section 8 of the RE Law

Green Energy Option



- □ The DOE shall establish a Green Energy Option program which provides end-users the option to choose RE resources as their sources of energy
- □ End-users may directly contract from RE facilities their energy requirements
- □ TRANSCO, DUs, PEMC and all relevant parties are hereby mandated to provide the mechanisms for the physical connection and commercial arrangements necessary to ensure the success of the Green Energy Option
- ERC to develop regulatory framework

^{*}Section 9 of the RE Law

Net Metering for RE

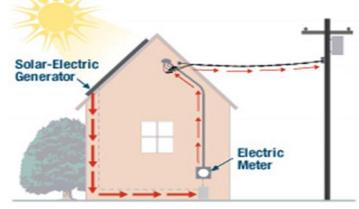


- DUs may enter into Net-Metering agreements with qualified end-users
- □ The ERC, in consultation with the NREB shall develop Net-metering interconnection standards and pricing methodology and other commercial arrangements

□ The DOE, ERC, Transco, DUs, PEMC and all relevant parties are mandated to provide mechanisms for

physical connection and

commercial arrangements



Section 7: Feed In Tariff System Mandate



- ERC, in consultation with the NREB
- For emerging renewable energy resources to be used in compliance with the renewable portfolio standard
 - ✓ Wind
 - ✓ Solar
 - ✓ Ocean
 - ✓ Run-of-river Hydro
 - ✓ Biomass
- Priority connection to the grid
- Priority purchase and transmission of, and payment for, such electricity by the grid system operators
- Fixed tariff by technology
- Mandated number of years, not less than 12



Feed-In Tariff Rules

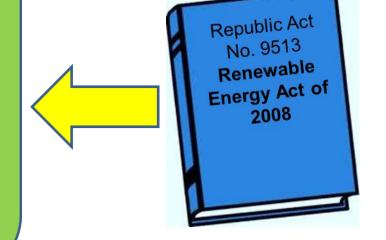


ERC Resolution No. 16, Series of 2010 (July 12, 2010)

Resolution Adopting the Feed-in Tariff Rules

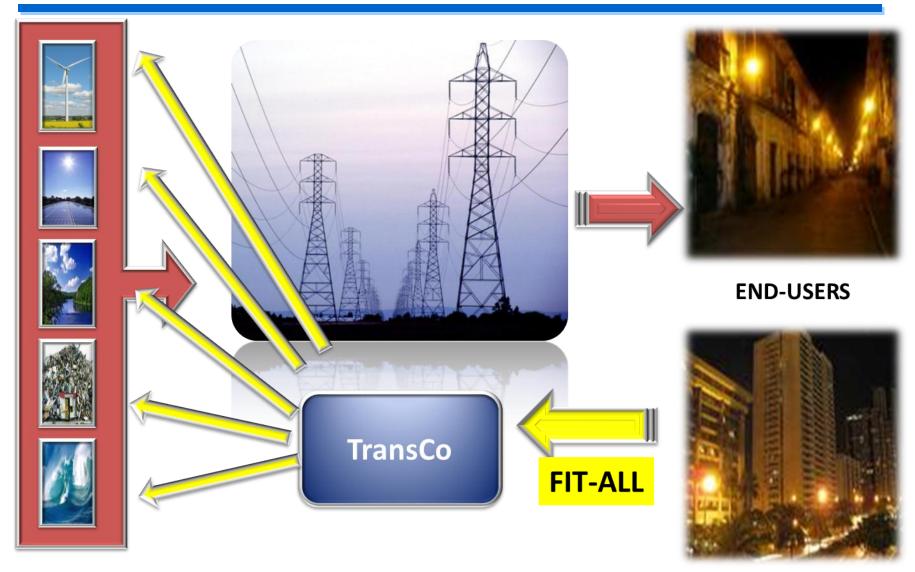
ERC Resolution No. 15, Series of 2012 (November 19, 2012)

Resolution Adopting the Position of the Commission on the Issues Paper Published on 02 April 2012 and the Corresponding Amendments to the Feed-in Tariff Rules



The Overall Fit Framework





The Fit to be Paid to RE Developers





- > Based on cost of a representative project
- > Technology-specific
- > 20 years duration
- Subject to degression and adjustments
- Subject to review

ERC-Approved FITs



ERC Case No. 2011-006 RM

	NREB	ERC-Approved
	(in PhP/kWh)	(in PhP/kWh)
Solar	17.95	9.68
Wind	10.37	8.53
Biomass	7.00	6.63
ROR Hydro	6.15	5.90

Effectivity

"Payment of the approved FIT rates to the eligible RE Developers shall commence upon the effectivity of the Feed-in Tariff Allowance (FIT-All), which shall be determined by the Commission at a later date after due proceedings thereon." Note: Decision on OTEC FIT deferred

DOE Installation Targets



	NREB DOE-REMB TARGETS
ROR Hydro	250 MW
Solar	50+450 MW
Wind	200 MW
Biomass	250 MW



	ERC-Approved (in PhP/kWh)
ROR Hydro	0.5%
	after year 2 from effectivity of FIT
Solar	6%
	after year 1 from effectivity of FIT
Wind	0.5%
	after year 2 from effectivity of FIT
Biomass	0.5%
	after year 2 from effectivity of FIT

Section 2.5: FIT Rules



Feed-In Tariff Allowance (FIT-All)



- ➤ Uniform ₱/kwh charge
- > Payable by all electricity users
- > Periodically calculated and set
- > Based on forecasted RE deliveries
- Proceeds go to a fund administered by Transco from where the RE payments will be sourced

Other Provisions: FIT Rules



Sec. 2.6 of the FIT Rules provides that NREB shall establish more detailed guidelines for the collection & disbursement of the FIT-All Fund.

□ Sec. 2.9 of the FIT Rules provides that ERC may consider the issuance of additional guidelines governing the dispatch and settlement of the FIT.

FIT-All Application



- ✓ Application to be filed by Administrator annually, no later than July 31 of each year.
- ✓ FIT-All to be approved by the ERC no later than October 31 of each year.
- ✓ FIT-All to be approved by ERC shall be applied to the succeeding calendar year.
- ✓ Formula for computing the FIT-All provided in the Guidelines.

Collection of the FIT-All



- ✓ FIT-All Fund shall be in the form of a special discretional trust account corresponding to each component of the FIT-All Fund with a Government Financial Institution as Trustee.
- ✓ Agreement shall be governed by a Trust Agreement to be approved by the ERC.
- ✓ For the sole and exclusive benefit of the Eligible RE Plants except AA and DA.

Collection of the FIT-All



- ✓ Eligible RE Plant may assign the Actual FIT Revenue to banks or financial institutions for purposes of securing financing.
- ✓ FIT-All Fund shall not form part of the assets of the Administrator.
- ✓ Nor shall it be made to pay out from its own funds for any liability of the FIT-All Fund.

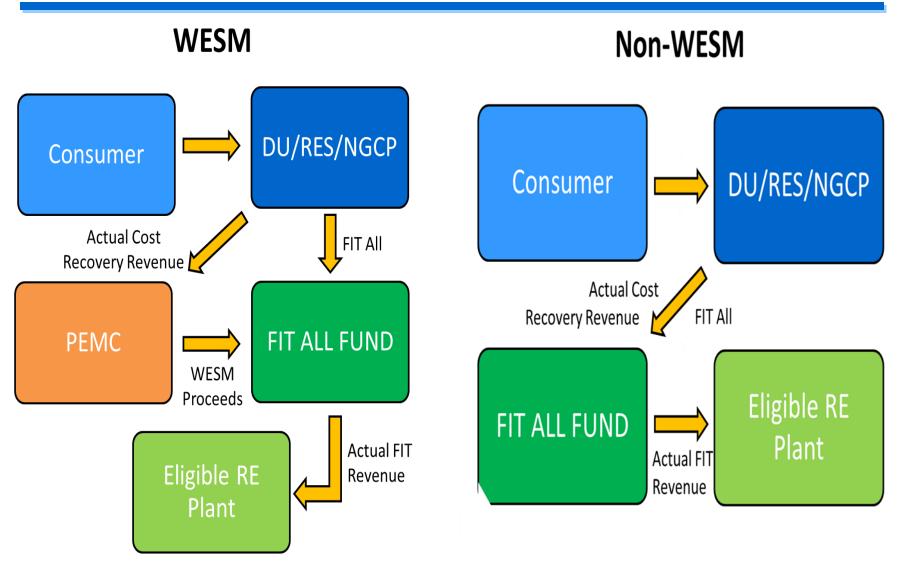
Collection of the FIT-All



- ✓ All Eligible RE Plants shall enter into a Renewable Energy Payment Agreement (REPA) with the Administrator for the payment of the FIT, a template of which shall be issued by the ERC.
- ✓ Trustee shall separate and allocate the remittances into the component accounts, as computed by the Administrator, and in accordance with this Rules and the ERC Decision on FIT-All.

Fund Flow





Thank You!



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